REVISED AGENDA

CITY COUNCIL OF THE CITY OF MORENO VALLEY
MORENO VALLEY COMMUNITY SERVICES DISTRICT
CITY AS SUCCESSOR AGENCY FOR THE COMMUNITY REDEVELOPMENT AGENCY OF THE CITY OF MORENO VALLEY
MORENO VALLEY HOUSING AUTHORITY
BOARD OF LIBRARY TRUSTEES

February 7, 2017

REGULAR MEETING – 6:00 PM

City Council Study Sessions
Second Tuesday of each month – 6:00 p.m.
City Council Meetings
Special Presentations – 5:30 P.M.
First & Third Tuesday of each month – 6:00 p.m.
City Council Closed Session
Will be scheduled as needed at 4:30 p.m.

City Hall Council Chamber – 14177 Frederick Street

Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities, in compliance with the Americans with Disabilities Act of 1990. Any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to Guy Pegan, ADA Coordinator, at 951.413.3120 at least 72 hours before the meeting. The 72-hour notification will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

Dr. Yxstian A. Gutierrez, Mayor

Victoria Baca, Mayor Pro Tem
David Marquez, Council Member
Jeffrey J. Giba , Council Member
Vacant

AGENDA
CITY COUNCIL OF THE CITY OF MORENO VALLEY
February 7, 2017

CALL TO ORDER - 5:30 PM

SPECIAL PRESENTATIONS

1. Eagle Scout Recognition

   a) Samuel Amaya

   b) Adam Greer

AGENDA
JOINT MEETING OF THE
CITY COUNCIL OF THE CITY OF MORENO VALLEY
MORENO VALLEY COMMUNITY SERVICES DISTRICT
CITY AS SUCCESSOR AGENCY FOR THE
COMMUNITY REDEVELOPMENT AGENCY OF THE
CITY OF MORENO VALLEY
MORENO VALLEY HOUSING AUTHORITY
AND THE BOARD OF LIBRARY TRUSTEES

THE CITY COUNCIL RECEIVES A SEPARATE STIPEND FOR CSD MEETINGS

REGULAR MEETING – 6:00 PM
FEBRUARY 7, 2017

CALL TO ORDER
Joint Meeting of the City Council, Community Services District, City as Successor Agency for the Community Redevelopment Agency, Housing Authority and the Board of Library Trustees - actions taken at the Joint Meeting are those of the Agency indicated on each Agenda item.

PLEDGE OF ALLEGIANCE

INVOCATION
Pastor Mark Avila, Calvary Chapel Moreno Valley

ROLL CALL

INTRODUCTIONS

PUBLIC COMMENTS ON MATTERS ON THE AGENDA WILL BE TAKEN UP AS THE ITEM IS CALLED FOR BUSINESS, BETWEEN STAFF'S REPORT AND CITY COUNCIL DELIBERATION (SPEAKER SLIPS MAY BE TURNED IN UNTIL THE ITEM IS CALLED FOR BUSINESS.)

PUBLIC COMMENTS ON ANY SUBJECT NOT ON THE AGENDA UNDER THE JURISDICTION OF THE CITY COUNCIL
Those wishing to speak should complete and submit a BLUE speaker slip to the Sergeant-at-Arms. There is a three-minute time limit per person. All remarks and questions shall be addressed to the presiding officer or to the City Council.

JOINT CONSENT CALENDARS (SECTIONS A-D)
All items listed under the Consent Calendars, Sections A, B, C, and D are considered to be routine and non-controversial, and may be enacted by one motion unless a member of the City Council, Community Services District, City as Successor Agency for the Community Redevelopment Agency, Housing Authority or the Board of Library Trustees

requests that an item be removed for separate action. The motion to adopt the Consent Calendars is deemed to be a separate motion by each Agency and shall be so recorded by the City Clerk. Items withdrawn for report or discussion will be heard after public hearing items.

A. CONSENT CALENDAR-CITY COUNCIL

A.1. ORDINANCES - READING BY TITLE ONLY - THE MOTION TO ADOPT AN ORDINANCE LISTED ON THE CONSENT CALENDAR INCLUDES WAIVER OF FULL READING OF THE ORDINANCE.

Recommendation: Waive reading of all Ordinances.

A.2. MINUTES - CITY COUNCIL - REGULAR MEETING - OCT 4, 2016 6:00 PM

Recommendation: Approve as submitted.

A.3. COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR FISCAL YEAR 2016/2017 AS OF July 1, 2016 AND REIMBURSABLE ACTIVITIES REPORT FOR JULY 1, 2016 - December 31, 2016 (Report of: City Clerk)

Recommendation:

1. Receive and file the Fiscal Year 2016/2017 Council Discretionary Expenditure Reports and the Reimbursable Activities Report as of July 1, 2016 through December 31, 2016.

A.4. LIST OF PERSONNEL CHANGES (Report of: Administrative Services)

Recommendation:

1. Ratify the list of personnel changes as described.

A.5. APPROVE AGREEMENT BETWEEN THE CITY OF MORENO VALLEY AND HOMETOWN CONNECTIONS INTERNATIONAL, LLC FOR STRATEGIC FACILITATION SERVICES FOR MORENO VALLEY UTILITY (Report of: Financial & Management Services)

Recommendation:

1. Approve Agreement between the City of Moreno Valley and Hometown Connections International, LLC for Strategic Facilitation Services for Moreno Valley Utility.

A.6. RESOLUTIONS OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY AND THE CITY COUNCIL IN ITS CAPACITY AS COMMISSIONERS OF THE CITY OF MORENO VALLEY HOUSING AUTHORITY TO AUTHORIZE AND APPROVE AN EXTENSION OF TIME UNDER THE HEALTH AND SAFETY CODE SECTION 33334.16 FOR

DEVELOPMENT OF AFFORDABLE HOUSING (Report of: Financial & Management Services)

Recommendation:

1. Approve Resolution No. 2017-07, a Resolution of the City Council of the City of Moreno Valley, California, Approving an Extension of Time under Health and Safety Code Section 33334.16 and affirming the Intention of the City Council that the Property be Used Directly or Indirectly in the Manner Prescribed by Health and Safety Code Section 33334.16.

A.7. PA07-0129 (TR 35606) – APPROVE TRACT MAP 35606 LOCATED ON METRIC DRIVE BETWEEN HUBBARD STREET AND PERRIS BOULEVARD. DEVELOPER: METRIC HOMES, LLC (Report of: Public Works)

Recommendations:

1. Approve Tract Map 35606 for PA07-0129.

2. Authorize the City Clerk to sign the map and transmit said map to the County Recorder's Office for recordation.

A.8. PAYMENT REGISTER - NOVEMBER 2016 (Report of: Financial & Management Services)

Recommendation:

1. Receive and file the Payment Register.

A.9. PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S TURF REMOVAL REBATE PROGRAM FOR ZONE 03 AND ZONE 04 OF LANDSCAPE MAINTENANCE DISTRICT NO. 2014-02 (Report of: Public Works)

Recommendations:

1. Authorize Participation in Eastern Municipal Water District's (EMWD) Turf Removal Program for a Rebate of up to $232,858.00 for the benefit of Zone 03 and Zone 04 of Landscape Maintenance District (LMD) No. 2014-02.

2. Approve the First Amendment to the fiscal year (FY) 2016/17 Independent Contractor Agreement for Landscape Districts – South with Merchants Landscape Services, Inc., 1510 S. Lyon St., Santa Ana, CA, 92705 ("First Amendment") to replace certain turf areas with drought tolerant landscaping and water efficient irrigation (Additional

Work) and to reduce the frequency of service in Zone 04.

3. Approve budget adjustments as set forth in the Fiscal Impact section of this report.

4. Authorize the City Manager to execute the First Amendment which includes authorizing the City Manager to execute subsequent amendments or extensions to the Agreement, and the authority to authorize associated purchase orders in accordance with the terms of the Agreement as amended, subject to the approval of the City Attorney and provided sufficient funding appropriations and program approvals have been granted by the City Council, which may include potential contingencies for unanticipated work.

5. Authorize the issuance of a change order for FY 2016/17 from the current not-to-exceed amount of $345,595.60 to a new not-to-exceed amount of $626,083.47, an increase of $280,487.87 for the First Amendment.

A.10. APPROVE AND ADOPT THE REVISED DEBT MANAGEMENT POLICY (Report of: Financial & Management Services)

Recommendation:

1. Approve and Adopt the revised Debt Management Policy.

A.11. ACCEPTANCE OF CALIFORNIA DEPARTMENT OF RESOURCES, RECOVERY AND RECYCLING USED OIL PAYMENT PROGRAM AWARD (Report of: Public Works)

Recommendation:

1. Staff recommends the City Council approve the acceptance of the Used Oil Payment Program grant funds awarded by the California Department of Resources, Recovery and Recycling (CalRecycle), in the amount of $55,462.00.

*A.12. APPROVAL OF EMPLOYMENT AGREEMENT WITH PATRICIA JACQUEZ-NAREZ TO SERVE AS THE NEW CITY CLERK (Report of: City Attorney)

Recommendation:

1. It recommended that Council approve the Employment Agreement with Patricia Jacquez-Nares to serve as the new City Clerk and authorize the Mayor to execute it on behalf of the City.

B. CONSENT CALENDAR-COMMUNITY SERVICES DISTRICT

B.1. ORDINANCES - READING BY TITLE ONLY - THE MOTION TO ADOPT AN ORDINANCE LISTED ON THE CONSENT CALENDAR INCLUDES WAIVER OF FULL READING OF THE ORDINANCE.

Recommendation: Waive reading of all Ordinances.

B.2. MINUTES - REGULAR MEETING OF OCTOBER 4, 2016 (See A.2)

Recommendation: Approve as submitted.

C. CONSENT CALENDAR - HOUSING AUTHORITY

C.1. ORDINANCES - READING BY TITLE ONLY - THE MOTION TO ADOPT AN ORDINANCE LISTED ON THE CONSENT CALENDAR INCLUDES WAIVER OF FULL READING OF THE ORDINANCE.

Recommendation: Waive reading of all Ordinances.

C.2. MINUTES - REGULAR MEETING OF OCTOBER 4, 2016 (See A.2)

Recommendation: Approve as submitted.

C.3. RESOLUTIONS OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY AND THE CITY COUNCIL IN ITS CAPACITY AS COMMISSIONERS OF THE CITY OF MORENO VALLEY HOUSING AUTHORITY TO AUTHORIZE AND APPROVE AN EXTENSION OF TIME UNDER THE HEALTH AND SAFETY CODE SECTION 33334.16 FOR DEVELOPMENT OF AFFORDABLE HOUSING (Report of: Financial & Management Services)

Recommendations:

1. Adopt Resolution No. HA 2017-01, A Resolution of the Moreno Valley Housing Authority of the City of Moreno Valley, California, Requesting that the City Council of the City of Moreno Valley Request an Extension of Time Under Health and Safety Code Section 33334.16.

D. CONSENT CALENDAR - BOARD OF LIBRARY TRUSTEES

D.1. ORDINANCES - READING BY TITLE ONLY - THE MOTION TO ADOPT AN ORDINANCE LISTED ON THE CONSENT CALENDAR INCLUDES WAIVER OF FULL READING OF THE ORDINANCE.

Recommendation: Waive reading of all Ordinances.

D.2. MINUTES - REGULAR MEETING OF OCTOBER 4, 2016 (See A.2)

Recommendation: Approve as submitted.

E. PUBLIC HEARINGS

Questions or comments from the public on a Public Hearing matter are limited to five minutes per individual and must pertain to the subject under consideration.

Those wishing to speak should complete and submit a GOLDENROD speaker slip to the Sergeant-at-Arms.

E.1. PUBLIC HEARING TO COLLECT COMMUNITY NEEDS COMMENTS & ADOPT 2017-18 OBJECTIVES & POLICIES (Report of: Financial & Management Services)

Recommendations: That the City Council:

1. Conduct a Public Hearing to allow for the public to comment on the needs of low-and-moderate income residents in Moreno Valley.

2. Approve the proposed CDBG, HOME, and ESG Grant Objectives and Policies for the 2017-2018 Program Year.

E.2. A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING COMMISSION'S DECEMBER 15, 2016 APPROVAL OF PEN16-0020 (PA16-0002), PLOT PLAN FOR A 446,350 SQUARE FOOT WAREHOUSE BUILDING ON 19.64 ACRES ON WEST SIDE OF INDIAN STREET, SOUTH OF GROVE VIEW ROAD IN THE MORENO VALLEY INDUSTRIAL AREA SPECIFIC PLAN 208. AN ENVIRONMENTAL IMPACT REPORT (EIR) WAS PREPARED FOR THE PROJECT. THE APPELLANT IS BLUM/COLLINS LLP. FOR THE SOCAL ENVIRONMENTAL JUSTICE ALLIANCE. (Report of: Community Development)

Recommendations: That the City Council:

1. **APPROVE Resolution 2017-08.** A Resolution of the City Council of the City of Moreno Valley, California, denying the appeal and sustaining the December 15, 2016 actions of the Planning Commission and thereby the City Council CERTIFIES the Final Environmental Impact Report (EIR) PEN16-0019 (P16-003) included as Exhibit A, ADOPTS the Mitigation Monitoring and Reporting Program included as Exhibit B, ADOPTS the Findings and Statement of Overriding Considerations included as Exhibit C, and APPROVES Plot Plan PEN16-0020 (PA16-0002) with Conditions of Approval included as Exhibit D, for the Indian Street Commerce Center project, a 446,350 square foot warehouse building.

E.3. MUNICIPAL CODE UPDATE – SECTION 8.12.140 - DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR (Report of: Public Works)

Recommendations: That the City Council:

1. Conduct a Public Hearing on proposed amendment to Section 8.12.140 of the City of Moreno Valley Municipal Code.

2. Introduce Ordinance No. 919, an Ordinance of the City Council of the City of Moreno Valley, California, thereby amending the City of Moreno Valley Municipal Code Section 8.12.140 related to floodplain development approvals.

3. Set the second reading and adoption of the Ordinance for the next regularly scheduled Council Meeting on February 21, 2017.

E.4. PUBLIC HEARING FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM MAIL BALLOT PROCEEDING (Report of: Public Works)

Recommendations: That the City Council:

1. Conduct the Public Hearing and accept public testimony regarding the mail ballot proceeding for In-N-Out Burgers for approval of the National Pollutant Discharge Elimination System (NPDES) maximum commercial/industrial regulatory rate to be applied to the property tax bill.

2. Direct the City Clerk to count the returned NPDES ballot.

3. Verify and accept the results of the mail ballot proceeding as maintained by the City Clerk on the Official Tally Sheet.

4. Receive and file the Official Tally Sheet with the City Clerk's office.

5. If approved, authorize and impose the NPDES maximum commercial/industrial regulatory rate to the Assessor's Parcel Numbers mentioned in this report.

F. ITEMS REMOVED FROM CONSENT CALENDARS FOR DISCUSSION OR SEPARATE ACTION

G. REPORTS

G.1. CITY COUNCIL REPORTS ON REGIONAL ACTIVITIES

(Informational Oral Presentation - not for Council action)

March Joint Powers Commission (JPC)

Riverside County Habitat Conservation Agency (RCHCA)

Riverside County Transportation Commission (RCTC)

Riverside Transit Agency (RTA)

Western Riverside Council of Governments (WRCOG)

Western Riverside County Regional Conservation Authority (RCA)

School District/City Joint Task Force

Southern California Association of Governments (SCAG)

G.2. EMERGING LEADERS COUNCIL ANNUAL REPORT (ORAL PRESENTATION) (Report of: City Clerk)

G.3. APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST QUARTER BUDGET AMENDMENTS, AND OPERATING AND CAPITAL CARRYOVERS FROM FISCAL YEAR 2015/16 (Report of: Financial & Management Services)

Recommendations: That the City Council:

1. Receive and file the Fiscal Year 2016/17 First Quarter Budget Review. (Attachment 1)

2. Adopt Resolution No. 2017-09. A resolution of the City Council of the City of Moreno Valley, California, adopting the revised operating budgets for fiscal year 2016/17.

3. Approve the creation of a new Senior Management Analyst position to support the Economic Development Department.

4. Approve the reactivation of the unfunded Deputy City Attorney position to support the City Attorney's Office.

5. Approve the elimination of the vacant Senior Engineer, P.E. within Transportation Division.

6. Approve the Position Control Roster. Specific positions are discussed within this staff report and listed on Attachment 9 to this staff report.

Recommendations: That the CSD:

1. Adopt Resolution No. CSD 2017-01. A resolution of the Moreno Valley Community Services District of the City of Moreno Valley, California, adopting the revised operating and capital budgets for Fiscal Year (FY) 2016/17.

Recommendations: That the HA:

1. Adopt Resolution No. HA 2017-02. A resolution of the Moreno Valley Housing Authority of the City of Moreno Valley, California, adopting the revised operating and capital budgets for Fiscal Year (FY) 2016/17.

Recommendations: That the SA:

1. Adopt Resolution No. SA 2017-01. A resolution of the Moreno Valley Successor Agency to the Community Redevelopment Agency of the City of Moreno Valley, California, adopting the revised operating and capital budgets for Fiscal Year (FY) 2016/17.

G.4. APPROVE AND ADOPT THE FUND BALANCE AND FINANCIAL RESERVES POLICY (Report of: Financial & Management Services)

Recommendation:

1. Approve and Adopt the Fund Balance and Financial Reserves Policy.

G.5. CITY ATTORNEY'S REPORT

(Informational Oral Presentation - not for Council action)

G.6. CITY MANAGER'S REPORT

(Informational Oral Presentation - not for Council action)

H. LEGISLATIVE ACTIONS

H.1. ORDINANCES - 1ST READING AND INTRODUCTION - NONE

H.2. ORDINANCES - 2ND READING AND ADOPTION - NONE

H.3. ORDINANCES - URGENCY ORDINANCES - NONE

CLOSING COMMENTS AND/OR REPORTS OF THE CITY COUNCIL, COMMUNITY SERVICES DISTRICT, CITY AS SUCCESSOR AGENCY FOR THE COMMUNITY REDEVELOPMENT AGENCY, HOUSING AUTHORITY AND THE BOARD OF LIBRARY TRUSTEES.

PUBLIC INSPECTION

The contents of the agenda packet are available for public inspection on the City's website at www.moval.org and in the City Clerk's office at 14177 Frederick Street during normal business hours.

Any written information related to an open session agenda item that is known by the City to have been distributed to all or a majority of the City Council less than 72 hours prior to this meeting will be made available for public inspection on the City's website at www.moval.org and in the City Clerk's office at 14177 Frederick Street during normal business hours.

ADJOURNMENT

CERTIFICATION
I, Marie Macias, MMC, Interim City Clerk of the City of Moreno Valley, California, certify that 72 hours prior to this Regular Meeting, the City Council Agenda was posted on the City's website at: www.moval.org and in the following three public places pursuant to City of Moreno Valley Resolution No. 2007-40:

City Hall, City of Moreno Valley
14177 Frederick Street

Moreno Valley Library
25480 Alessandro Boulevard

Moreno Valley Senior/Community Center
25075 Fir Avenue

Marie Macias, MMC
Interim City Clerk

Date Posted: February 2, 2017

MINUTES
CITY COUNCIL REGULAR MEETING OF THE CITY OF MORENO VALLEY
October 4, 2016

CALL TO ORDER - 5:00 PM

SPECIAL PRESENTATIONS

1. Employee of the Quarter
2. Department of Public Social Services - Proclamation
3. Proclamation Recognizing Public Power Week - October 2 - 8, 2016
4. Senior Center Nutrition Program Staff & Volunteers - Mayoral Proclamations
5. Introduction of the Mayor's Cup Basketball Challenge Players - Team MoVal

Minutes Acceptance: Minutes of Oct 4, 2016 6:00 PM (CONSENT CALENDAR-CITY COUNCIL)

MINUTES
JOINT MEETING OF THE
CITY COUNCIL OF THE CITY OF MORENO VALLEY
MORENO VALLEY COMMUNITY SERVICES DISTRICT
CITY AS SUCCESSOR AGENCY FOR THE
COMMUNITY REDEVELOPMENT AGENCY OF THE
CITY OF MORENO VALLEY
MORENO VALLEY HOUSING AUTHORITY
BOARD OF LIBRARY TRUSTEES

REGULAR MEETING – 6:00 PM
October 4, 2016

CALL TO ORDER

The Joint Meeting of the City Council of the City of Moreno Valley, Moreno Valley Community Services District, City as Successor Agency for the Community Redevelopment Agency of the City of Moreno Valley, Moreno Valley Housing Authority and the Board of Library Trustees was called to order at 6:00 p.m. by Mayor Gutierrez in the Council Chamber located at 14177 Frederick Street

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was led by Rafael Brugueras

INVOCATION

Pastor Donald Wilson, Lighthouse Baptist Church

ROLL CALL

Council:	Dr. Yxstian A. Gutierrez	Mayor
	Jeffrey J. Giba	Mayor Pro Tem
	George E. Price	Council Member
	Jesse L. Molina	Council Member
	D. LaDonna Jempson	Council Member

INTRODUCTIONS

Staff:	Michelle Dawson	City Manager
	Martin Koczanowicz	City Attorney
	Marie Macias	Interim City Clerk
	Marshall Eyerman	Chief Financial Officer
	Thomas M. DeSantis	Assistant City Manager
	Ahmad Ansari	Public Works Director/City Engineer
	Joel Ontiveros	Police Chief
	Abdul Ahmad	Fire Chief
	Terrie Stevens	Administrative Services Director
	Gabriel Garcia	Parks & Community Services Director

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Mike Lee	Economic Development Director
Allen Brock	Community Development Director
Kathy Gross	Executive Assistant

PUBLIC COMMENTS ON ANY SUBJECT NOT ON THE AGENDA UNDER THE JURISDICTION OF THE CITY COUNCIL

Kelly Fitzpatrick
1. School Board meeting of 9/17/16; bullying in schools
2. Unity

Roy Bleckert
1. Transient Occupancy Tax (Hotel Tax)

Rafael Brugueras
1. Strategic Planning
2. Roy Bleckert's comments

Daryl Terrell
1. Unity in our City

Jorge Quintero
1. Issues with the school district and the lack of transparency

Jose Chavez
1. School Board

Librada Murillo
1. School Board meeting and how they interfere with City Council meetings

Pete
1. Taxes

JoAnn Stephens
1. Spoke on previous Council meeting and contributions

Robert Harris
1. Jesse Molina's campaign forms and contributions received of approximately $192,000

Louise Palomarez
1. School Board meeting and Measure M

Mayor Gutierrez opened the floor to any Council Members wishing to speak early on their closing comments:

Council Member Jempson

1. Reminder of October 5 being International Walk to School Day. Stated the importance to ensure the kids are safe.
2. Oktoberfest will be Saturday from 10-2 at Conference and Recreation Center
3. Art Commission and their work on putting events together; need support from the people.
4. Ribbon Cutting Ceremony for So Cal Perris Fair; take the family and enjoy.
5. MVHS 50th Class Reunion and was asked to present a proclamation. They were the first graduating class of Moreno Valley.
6. Thanked Victory Outreach for participating in community event car show at Bridges Learning Center.

JOINT CONSENT CALENDARS (SECTIONS A-D)

Mayor Gutierrez opened the agenda items for the Consent Calendars for public comments, which were received from Rafael Brugueras (A.4, A.5), Albert Renteria (A.4), and Mr. Renteria deferred his comments to Section F as the item was moved for separate action.

Motion to Approve Joint Consent Calendar Items A.1 through D.1 with the exception of A.4, which was pulled for separate action.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	George E. Price, Council Member
SECONDER:	Jeffrey J. Giba, Mayor Pro Tem
AYES:	Gutierrez, Giba, Price, Molina, Jempson

A. CONSENT CALENDAR-CITY COUNCIL

A.1. ORDINANCES - READING BY TITLE ONLY - THE MOTION TO ADOPT AN ORDINANCE LISTED ON THE CONSENT CALENDAR INCLUDES WAIVER OF FULL READING OF THE ORDINANCE.

Recommendation: Waive reading of all Ordinances.

A.2. BIENNIAL REVIEW OF THE CITY'S CONFLICT OF INTEREST CODE (Report of: City Clerk)

Recommendations:

1. That the City Council adopt Resolution No. 2016-68, adopting an amended Conflict of Interest Code to amend the list of designated employees having filing requirements, and repealing all prior enactments on the same subject.

2. That the City Council serving as Successor Agency for the Community Redevelopment Agency of the City of Moreno Valley adopt Resolution No. SA 2016-03, adopting an amended Conflict of Interest Code to amend the list of designated employees having filing requirements, and repeal all prior enactments on the same subject.

A.3. PA04-0016 (TRACT 31414) – EXONERATE SECURITY AND ADOPT THE RESOLUTION AUTHORIZING ACCEPTANCE OF THE PUBLIC IMPROVEMENTS AS COMPLETE AND ACCEPTING THOSE PORTIONS OF PIGEON PASS ROAD, SUNNYMEAD RANCH PARKWAY, SIENNA LANE, DEVILLE DRIVE, IMPERIAL DRIVE, AND CAPRICE WAY ASSOCIATED WITH THIS PROJECT INTO THE CITY'S MAINTAINED STREET SYSTEM DEVELOPER: PIGEON PASS LLC (Report of: Public Works)

Recommendations:

1. Adopt Resolution No. 2016-69. A Resolution of the City Council of the City of Moreno Valley, California, authorizing the acceptance of the public improvements as complete within Project PA04-0016 (Tract 31414) and acceptance of those portions of Pigeon Pass Road, Sunnymead Ranch Parkway, Sienna Lane, Deville Drive, Imperial Drive, and Caprice Way associated with this Project into the City's Maintained Street System.

2. Authorize the City Engineer to exonerate the Irrevocable Letter of Credit as Faithful Performance security, and in 90 days exonerate the Irrevocable Letter of Credit as Material and Labor security if there are no stop notices or liens on file with the City Clerk.

A.4. This item has been moved to F.

A.5. AUTHORIZATION TO AWARD CONSTRUCTION CONTRACT FOR BOX SPRINGS COMMUNICATIONS TOWER- PROJECT NO. 803 0011 30 39 (Report of: Public Works)

Recommendations:

1. Award the construction contract to Jitney Company, Inc., 1541 Commerce St., Corona, CA 92880, the lowest responsible bidder for the Box Springs Communication Tower Project.

2. Authorize the City Manager to execute a contract with Jitney Company, Inc.

3. Authorize the issuance of a Purchase Order to Jitney Company, Inc. in the amount of $490,469.10 ($445,881.00 bid amount plus 10%

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contingency) when the contract has been signed by all parties.

4. Authorize the Public Works Director/City Engineer to execute any subsequent related minor change orders to the contract with Jitney Company Inc. up to, but not exceeding, the 10% contingency amount of $44,588.10, subject to the approval of the City Attorney.

A.6. PAYMENT REGISTER - JULY 2016 (Report of: Financial & Management Services)

Recommendation:

1. Receive and file the Payment Register.

A.7. LIST OF PERSONNEL CHANGES (Report of: Administrative Services)

Recommendation:

1. Ratify the list of personnel changes as described.

A.8. COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR FISCAL YEAR 2016/2017 AS OF 7/1/16 AND REIMBURSABLE ACTIVITIES REPORT FOR JULY 1, 2016 - AUGUST 31, 2016 (Report of: City Clerk)

Recommendation:

1. Receive and file the Fiscal Year 2016/2017 Council Discretionary Expenditure Reports and the Reimbursable Activities Report as of July 1, 2016.

B. CONSENT CALENDAR-COMMUNITY SERVICES DISTRICT

B.1. ORDINANCES - READING BY TITLE ONLY - THE MOTION TO ADOPT AN ORDINANCE LISTED ON THE CONSENT CALENDAR INCLUDES WAIVER OF FULL READING OF THE ORDINANCE.

Recommendation: Waive reading of all Ordinances.

B.2. RECOMMENDATION TO APPROVE SECOND AMENDMENT TO CONTRACT MOWING AND MAINTENANCE OF PARKS IN ZONE A AND COMMUNITY FACILITIES DISTRICT #1 TO LANDCARE, USA, LLC (Report of: Parks & Community Services)

Recommendations:

1. Approve the Second Amendment to Independent Contractor Agreement with Landcare, USA, LLC to provide contract mowing and

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maintenance of Parks in Zone A and Community Facilities District #1 in the amount of $145,127.19 ($121,031.04 for Zone A and $24,096.15 for CFD #1.)

2. Approve a budget adjustment of $2,848, as set forth in the Fiscal Impact Section.

3. Authorize the City Manager to execute any subsequent related Extensions or Amendments to the Agreement, including the authority to authorize associated Purchase Order changes in accordance with the terms of the Agreement, subject to the approval of the City Attorney and provided sufficient funding appropriations and program approvals have been granted by the City Council.

B.3. BIENNIAL REVIEW OF THE CITY'S CONFLICT OF INTEREST CODE (Report of: City Clerk)

Recommendations:

1. That the City Council, acting in its capacity as President and Members of the Board of Directors of the Moreno Valley Community Services District (CSD), adopt Resolution No. CSD 2016-26, adopting an amended Conflict of Interest Code to amend the list of designated employees having filing requirements, and repeal all prior enactments on the same subject.

C. CONSENT CALENDAR - HOUSING AUTHORITY

C.1. ORDINANCES - READING BY TITLE ONLY - THE MOTION TO ADOPT AN ORDINANCE LISTED ON THE CONSENT CALENDAR INCLUDES WAIVER OF FULL READING OF THE ORDINANCE.

Recommendation: Waive reading of all Ordinances.

C.2. BIENNIAL REVIEW OF THE CITY'S CONFLICT OF INTEREST CODE (Report of: City Clerk)

Recommendations:

1. Receive and file the 2016 Local Agency Biennial Notice confirming that no amendment is required to the Conflict of Interest Code for the Moreno Valley Housing Authority.

Minutes Acceptance: Minutes of Oct 4, 2016 6:00 PM (CONSENT CALENDAR-CITY COUNCIL)

D. CONSENT CALENDAR - BOARD OF LIBRARY TRUSTEES

D.1. ORDINANCES - READING BY TITLE ONLY - THE MOTION TO ADOPT AN ORDINANCE LISTED ON THE CONSENT CALENDAR INCLUDES WAIVER OF FULL READING OF THE ORDINANCE.

Recommendation: Waive reading of all Ordinances.

E. PUBLIC HEARINGS - NONE

F. ITEMS REMOVED FROM CONSENT CALENDARS FOR DISCUSSION OR SEPARATE ACTION

A.4. REQUEST FOR CITY SPONSORSHIP OF SOUTHWEST VETERANS' BUSINESS RESOURCE CENTER EVENT (Report of: Parks & Community Services)

Recommendations: That the City Council:

1. Evaluate a request for sponsorship funds by the Southwest Veterans Business Resource Center based on criteria prescribed in the City's Sponsorship Policy.

2. Direct staff to actively promote the SVBRC's upcoming event in Moreno Valley. Offer assistance through the City's communication programs and approve the budget adjustments necessary to fund the activities.

Mayor Gutierrez opened the agenda item for public comments, which were received from JoAnn Stephan, Louise Palomarez and Robert Harris.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Dr. Yxstian A. Gutierrez, Mayor
SECONDER:	Jeffrey J. Giba, Mayor Pro Tem
AYES:	Gutierrez, Giba, Price, Molina, Jempson

Recess: 7:22 p.m.
Reconvened at 7:28 p.m.

G. REPORTS

G.1. CITY COUNCIL REPORTS ON REGIONAL ACTIVITIES

(Informational Oral Presentation - not for Council action)

March Joint Powers Commission (JPC)

Council Member Molina provided an update from the March Joint Powers Commission meeting held on September 28th.

The JPC agenda contained numerous non-controversial, consent calendar updates on various JPA activities including:

- Heacock Channel: The channel construction plans are 90% complete. All regulatory permits are anticipated within four weeks and a Mitigation Agreement has been completed. We are waiting for a permit from the Army Corps of Engineers.
- The JPC approved an easement to SCE for an on-site electrical distribution system to implement the U.S. Vets Housing Project.
- Finally, the JPC adopted a resolution related to minor roadway realignment/open space dedications for the South Campus of the Meridian Specific Plan.

Riverside County Habitat Conservation Agency (RCHCA) - No Report

Riverside County Transportation Commission (RCTC)

Mayor Gutierrez provided an update from the September 26th Programs and Projects Committee meeting, the Board:

- Approved an agreement with Caltrans to maintain the State Route 91 Express Lanes for a 50-year term. The Express Lanes project is scheduled to open in early 2017.
- Approved the opening day toll rates for the SR-91 Express Lanes. The toll rates are based upon hour by hour traffic congestion levels for both weekdays and weekends.
- Lastly, approved a three-year agreement with Mobile Relay Associates to provide a digital radio system and equipment in support of the Freeway Service Patrol (FSP) program. The new equipment will greatly enhance the reliability of communications between FSP drivers and CHP dispatch within the counties of Riverside and San Bernardino.

Riverside Transit Agency (RTA)

Council Member Molina provided an update from the September 22nd RTA meeting:

Minutes Acceptance: Minutes of Oct 4, 2016 6:00 PM (CONSENT CALENDAR-CITY COUNCIL)

- The Board approved an agreement with the University of California, Riverside Bourns College of Engineering Center to participate in a Department of Energy grant for the development and testing of an integrated powertrain operation for hybrid electric buses. Based on information such as route characteristics and passenger origin-destination flow, the power train will be optimized to improve efficiencies compared to that of a normal bus.

- In addition, the Board approved an amendment to the Short Range Transit Plan to include the new Downtown Riverside Perris Valley Line (PVL) shuttle service. The new shuttle route will serve all PVL trains stopping at the Downtown Riverside MetroLink Station. The operation of this new service, which began on October 3, will be weekdays, consistent with the days of operation of MetroLink weekday service.

Western Riverside Council of Governments (WRCOG)

Mayor Pro Tem Giba provided a brief update on the items covered at the WRCOG Executive Committee meeting on October 3, 2016.

WRCOG Environmental Department Activities
WRCOG's litter initiative will include components of the Lake Elsinore Pilot Litter Program, which emphasizes education and incentives as a way to instill community pride. The goal is to build upon the City's first year efforts and develop a regional initiative that will encompass all interested jurisdictions.

WRCOG Transportation Department Activities Update
WRCOG funds have been identified to commence a grant writing assistance program for its member jurisdiction. WRCOG is completing a Request or Proposal which will provide a bench of consultants to assist member jurisdictions with the grant application process. Program specifics and monies allocated have not yet been determined.

Western Riverside Energy Leader Partnership Update
The August 19, 2016 Net Zero Energy Conference was discussed, which included information on how to achieve, create and implement net zero designs in residential and commercial buildings. The California Public Utilities Commission adopted the goal of achieving Zero Net Energy (ZNE) building standards for new residential buildings by 2020 and new commercial buildings by 2030. A ZNE building includes zero energy consumption, with the total annual amount of energy used by the building equal to the amount of renewable energy created on the site.

Western Riverside County Regional Conservation Authority (RCA)

Council Member Jempson provided a brief update on the items covered at the RCA Board meeting on October 3, 2016.

Multiple Species Habitat Conservation Plan Local Development Mitigation Fee Collection and Civic/Infrastructure Contribution Report for August

RCA reports monthly on Multiple Species Habitat Conservation Plan local development mitigation fee collection and Civic/Infrastructure contributions. The report for August indicates $1,550,241 in receipts. The City of Moreno Valley did not have any activity to report for the month of August.

School District/City Joint Task Force - No Report

Southern California Association of Governments (SCAG)

Mayor Pro Tem Giba provided a brief update on SCAG

- Air Quality Board new Logo
- Draft Housing Summit "Cost of Not Housing"
- At the meeting of September 29th they approved proposals for 11 million grant programs.
- Look out for the Executive Summary and the District 69 report

Box Springs Mutual Water District (BSMWD)

Council Member Jempson reported on Box Springs Mutual Water District's financial statements and stated they're moving money to new banks and the most recent inspection report.

G.2. Authorize the Award of the Construction Contract to Hot Line Construction, Inc. for the Channel 12kV Circuit #1 Improvements from the Kitching Substation to the Lasselle Sports Park, Project No. 805 0037 (Report of: Financial & Management Services)

Recommendations: That the City Council:

1. Award the construction contract to Hot Line Construction, Inc., 9020 Brentwood Boulevard, Brentwood, CA 94513, the lowest responsible bidder, for the Kitching Substation Channel 12kV Circuit #1 Project.

2. Authorize the City Manager to execute a contract with Hot Line Construction, Inc.

3. Authorize the issuance of a Purchase Order to Hot Line Construction, Inc., for the amount of $1,040,000 ($945,100 bid amount plus 10% contingency) when the contract has been signed by all parties.

4. Authorize the Chief Financial Officer/City Treasurer to execute any subsequent related minor change orders to the contract with Hot Line Construction, Inc. up to, but not exceeding, the 10% contingency amount of $94,900, subject to the approval of the City Attorney.

Minutes Acceptance: Minutes of Oct 4, 2016 6:00 PM (CONSENT CALENDAR-CITY COUNCIL)

5. Appropriate $628,000 from the Moreno Valley Utility Fund (Account No. 6011 30 80 80005 720199) to cover the cost of items and administrative costs.

Mayor Gutierrez opened the agenda item for public comments, which was received from Rafael Brugueras.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Jesse L. Molina, Council Member
SECONDER:	D. LaDonna Jempson, Council Member
AYES:	Gutierrez, Giba, Price, Molina, Jempson

G.3. CITY MANAGER'S REPORT

No Report.

G.4. CITY ATTORNEY'S REPORT

(Informational Oral Presentation - not for Council action)

H. LEGISLATIVE ACTIONS

H.1. ORDINANCES - 1ST READING AND INTRODUCTION - NONE

H.2. ORDINANCES - 2ND READING AND ADOPTION - NONE

H.3. ORDINANCES - URGENCY ORDINANCES - NONE

CLOSING COMMENTS AND/OR REPORTS OF THE CITY COUNCIL, COMMUNITY SERVICES DISTRICT, CITY AS SUCCESSOR AGENCY FOR THE COMMUNITY REDEVELOPMENT AGENCY, HOUSING AUTHORITY AND THE BOARD OF LIBRARY TRUSTEES.

Council Member Molina

1. Welcome to Martin Koczanowicz our new City Attorney
2. Perris Fairground with Moreno Valley; we should reach out for future joint activity ventures.
3. Thank you to Mike Lee and Marshall Eyerman

Council Member Price

1. Thank you to Jeff Giba and Rotary Club for the house that was cleaned up near his home; looks great.
2. Welcomed Martin Koczanowicz our new City Attorney
3. Attended “Tip a Cop” with Deputy Riley and the following week attended “Tip a Firefighter” at St. Jude. Council Member Price expressed the need to publicize these events.
4. Attended the fair in Perris and noticed the City of Perris had a booth; the City of Perris has a night and asked if staff would look into something like that for

Moreno Valley residents
5. Expressed interest in talking to the Lake Ranger at Perris for Olympic events.

Mayor Pro Tem Giba

1. October 13 at 10:00 a.m., there will be a ground breaking ceremony at Shadow Mountain Park and asked Gabe to provide an update on project.
2. JPA program "Honorary Commander" asked Marshall to provide an update on the implementation of the program. Mayor Pro Tem Giba reminded the audience of the civic leaders that will be considered "Ambassadors".
3. Allen and Nick successfully began to implement program and asked Allen to provide an update on Keep MoVal Beautiful Program.
4. Students earned 4 community hours for working this event
5. Water Task Force meeting will be November 28th.

Mayor Gutierrez

1. Thanked the speakers for their comments regarding the special education concerns.
2. Reminded the audience that we are a different agency than the school district.
3. Oktoberfest and Mayors Cup

ADJOURNMENT

There being no further business the Regular Meeting was adjourned at 8:02 p.m.

Submitted by:

_____

Marie Macias, MMC, Interim City Clerk
Secretary, Moreno Valley Community Services District
Secretary, City as Successor Agency for the Community Redevelopment Agency of the City of Moreno Valley
Secretary, Moreno Valley Housing Authority
Secretary, Board of Library Trustees

Approved by:

_____

Dr. Yxstian Gutierrez, Mayor
President, Moreno Valley Community Services District
Chairperson, City as Successor Agency for the Community Redevelopment Agency of the City of Moreno Valley
Chairperson, Moreno Valley Housing Authority
Chairperson, Board of Library Trustees

Report to City Council

TO: Mayor and City Council

FROM: Marie Macias, Interim City Clerk

AGENDA DATE: February 7, 2017

TITLE: COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR FISCAL YEAR 2016/2017 AS OF JULY 1, 2016 AND REIMBURSABLE ACTIVITIES REPORT FOR JULY 1, 2016 - DECEMBER 31, 2016

RECOMMENDED ACTION

Recommendation:

1. Receive and file the Fiscal Year 2016/2017 Council Discretionary Expenditure Reports and the Reimbursable Activities Report as of July 1, 2016 through December 31, 2016.

SUMMARY

This staff report is prepared at the request of the City Council to provide transparency with respect to the expenditure of City funds from City Council Discretionary Expenditure Accounts and Reimbursable Activities. These reports are for each Council Member's year to date expenditures for Fiscal Year 2016/2017, as of July 1, 2016. Each Council District receives an annual budget allocation of $3,000. The Mayor receives an additional $3,000 annually. The reports include each transaction with a clear description of the expenditure.

These new reports have been posted to the City's website. The reports are also included routinely in the City Council agenda as an additional means of distributing the report to the Council and public.

The Expenditure and Reimbursable Activities Reports for the Mayor differential and five independent council districts list, in date order, the transactions allocated to the discretionary expenditure accounts. These reports are unaudited as of the date of this transmittal. Since the reports are reconciled to the City's general ledger, they will be considered audited and final with the completion of the independent audit for FY

2016/17 when completed by Vasquez & Company.

These reports will continue to be provided on a monthly basis, posted to the City's website, and included on the City Council agenda for the first regular meeting of each month. The reports will follow the same cycle, and will appear with the monthly payment register on City Council agendas in the future.

NOTIFICATION

Posting of the agenda as required by the Brown Act.

PREPARATION OF STAFF REPORT

Prepared By:
Angel Migao
Executive Assistant to Mayor/City Council

Department Head Approval:
Marie Macias
Interim City Clerk

CITY COUNCIL GOALS

None

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

ATTACHMENTS

Discretionary Accounts and Reimbursable Activities Reports

APPROVALS

PREPARATION OF STAFF REPORT

Prepared By:
Angel Migao
Executive Assistant to Mayor/City Council

Department Head Approval:
Marie Macias
Interim City Clerk

CITY COUNCIL GOALS

None

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

ATTACHMENTS

1. Nov 2016 - Discretionary Accounts & Reimbursables Report
2. Dec 2016 - Discretionary Accounts & Reimbursables Report

APPROVALS

Budget Officer Approval	✓ Approved	1/26/17 3:58 PM
City Attorney Approval	✓ Approved	1/26/17 4:06 PM
City Manager Approval	✓ Approved	1/26/17 4:09 PM



MAYOR DIFFERENTIAL
Fiscal Year 2016/2017 Council Discretionary Expenditures
Account: 1010-10-01-10010-620130
July 1, 2016 - November 30, 2016

Date		Amount	Description
	$	-	No expenditures to report for July, August, September and October.
11/4/2016	$	25.00	Moreno Valley College Second Annual Veterans Scholarship Breakfast
	$	25.00	TOTAL Council Discretionary Expenditures for FY 16/17 (Mayor Differential)
	$	3,000.00	FY 16/17 Budget Amount
	$	**2,975.00**	**FY 16/17 Budget Amount Remaining**

Source: Unaudited financial data from the City's accounting records.
Updated as of: 1/26/17

Attachment: Nov 2016 - Discretionary Accounts & Reimbursables Report (2460 : COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR



COUNCIL DISTRICT 1

Fiscal Year 2016/2017 Council Discretionary Expenditures

Account: 1010-10-01-10010-620111

July 1, 2016 - November 30, 2016

Date		Amount	Description
7/31/2016	$	14.95	Audible books membership for community book reading group
8/31/2016	$	(44.85)	Audible books membership - 4 months credit and cancellation of services
9/1/2016	$	8.00	Parking County of Riverside SCAG Meeting
9/14/2016	$	35.00	March ARB Tour and Breakfast
9/16/2016	$	25.00	LOC Media & Crisis Communication Training
9/24/2016	$	20.00	MVCC Wake-Up Moreno Valley
9/29/2016	$	100.00	7th Annual Inland Empire Economic Forecast Event
10/20/2016	$	259.00	T-Now Luncheon Meeting
10/20/2016	$	50.00	17th Annual Raincross Trophy Dinner
10/29/2016	$	500.00	Palm Middle School PTSA Fun Run Event
11/4/2016	$	25.00	Moreno Valley College Second Annual Veterans Scholarship Breakfast
11/19/2016	$	130.00	452nd Air Mobility Wing Military Ball
	$	1,122.10	TOTAL Council Discretionary Expenditures for FY 16/17
	$	3,000.00	FY 16/17 Budget Amount
	$	**1,877.90**	**FY 16/17 Budget Amount Remaining**

Source: Unaudited financial data from the City's accounting records.
Updated as of: 1/26/17

Attachment: Nov 2016 - Discretionary Accounts & Reimbursables Report (2460 : COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR



COUNCIL DISTRICT 2

Fiscal Year 2016/2017 Council Discretionary Expenditures

Account: 1010-10-01-10010-620112

July 1, 2016 - November 30, 2016

Date		Amount	Description
7/1/2016	$	25.00	LCC Riverside County Division General Meeting
7/31/2016	$	20.00	Wake-up Moreno Valley Meeting
7/31/2016	$	75.00	BIA Riverside County Meeting
8/29/2016	$	50.00	BIA Riverside County Dinner
8/31/2016	$	80.00	BIA Golf/Winery Tour/Dinner
8/31/2016	$	(80.00)	BIA Golf/Winery Tour/Dinner - Credit/Refund Event
8/31/2016	$	84.70	Sam's Club - farewell refreshments for Commissioner Van Natta
8/31/2016	$	29.17	Albertson's - farewell refreshments for Commissioner Van Natta
8/31/2016	$	93.00	The Cupcake & Espresso Bar -farwell reception Commision Van Netta
8/31/2016	$	47.75	MASH BASH March Field Air Museum Event
8/19/2016	$	317.83	Durden Plaque Installation Ceremony Refreshments
9/6/2016	$	15.00	Adelante
9/20/2016	$	45.00	BIA Desert Water Panel Meeting
10/3/2016	$	100.00	Sponsorship of Victory Outreach Church Live Entertainment Event
10/4/2016	$	50.00	The Salvation Army 7th Annula Soup-er Stars Luncheon
10/5/2016	$	50.00	2016 State of Riverside County Luncheon
10/7/2016	$	25.00	LOC Annual Conference Breakfast Meeting
10/8/2016	$	47.75	MASH BASH March Field Air Museum Event
10/11/2016	$	100.00	Bright Angels at Heart Autism Campaign Dinner
10/14/2016	$	125.00	BIA Riverside County Installation & Awards Celebration
10/14/2016	$	40.00	LOC Riverside County Division General Meeting and Dinner
10/20/2016	$	50.00	17th Annual Raincross Trophy Dinner
11/4/2016	$	25.00	Moreno Valley College Second Annual Veterans Scholarship Breakfast
11/6/2016	$	20.00	MVCC Wake-Up Moreno Valley
11/19/2016	$	65.00	452nd Air Mobility Wing Military Ball
11/30/2016	$	11.19	Mobility 21 Transporation Meeting
	$	1,511.39	TOTAL Council Discretionary Expenditures for FY 16/17
	$	3,000.00	FY 16/17 Budget Amount
	$	**1,488.61**	**FY 16/17 Budget Amount Remaining**

Source: Unaudited financial data from the City's accounting records.

Updated as of: 1/26/17

Attachment: Nov 2016 - Discretionary Accounts & Reimbursables Report (2460 : COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR



COUNCIL DISTRICT 3

Fiscal Year 2016/2017 Council Discretionary Expenditures

Account: 1010-10-01-10010-620113

July 1, 2016 - November 30, 2016

Date		Amount	Description
7/1/2016	$	25.00	LCC Riverside County Division General Meeting 7/11/16
7/31/2016	$	20.00	MVCC Wake-up Moreno Valley Meeting 7/27/16
7/31/2016	$	241.64	Sponsor - MV Parks & Community Services - Programs/Classes Fee Sponsorship
8/24/2016	$	20.00	MVCC Wake-up Moreno Valley Meeting 8/24/16
9/6/2016	$	15.00	Adelante 9/6/16
9/28/2016	$	35.00	March ARB Tour & 452nd Air Mobility Wing Civic Leader Tour & Breakfast
9/28/2016	$	20.00	MVCC Wake-Up Moreno Valley
10/5/2016	$	50.00	2016 State of Riverside County Luncheon
10/7/2016	$	25.00	LOC Annual Conference Breakfast Meeting
10/26/2016	$	20.00	MVCC Wake-up Moreno Valley Meeting 10/25/16
11/4/2016	$	25.00	Moreno Valley College Second Annual Veterans Scholarship Breakfast
11/15/2016	$	44.00	Reimbursement of phone call to Council Meeting from NY
11/19/2016	$	130.00	452nd Air Mobility Wing Military Ball
11/28/2016	$	100.00	Sponsorship of Operation Holiday Cheer
11/28/2016	$	100.00	Sponsorship of Toy Drive
11/30/2016	$	45.00	BIA Riverside County Meeting
	$	915.64	TOTAL Council Discretionary Expenditures for FY 16/17
	$	3,000.00	FY 16/17 Budget Amount
	$	**2,084.36**	**FY 16/17 Budget Amount Remaining**

Source: Unaudited financial data from the City's accounting records.

Updated as of: 1/26/17

Attachment: Nov 2016 - Discretionary Accounts & Reimbursables Report (2460 : COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR

COUNCIL DISTRICT 4

Fiscal Year 2016/2017 Council Discretionary Expenditures

Account: 1010-10-01-10010-620114

July 1, 2016 - November 30, 2016

Date		Amount	Description
7/31/2016	$	20.00	Wake-up Moreno Valley Meeting 7/27/16
			No expenditures to report for August 2016
9/20/2016	$	300.00	Rancho Belago Cowboys Football Team Sponsorship 9/20/16
9/26/2016	$	621.30	Sponsorship of Victory Outreach Church Live Entertainment Event
			No expenditures to report for October 2016
			No expenditures to report for November 2016
	$	941.30	TOTAL Council Discretionary Expenditures for FY 16/17
	$	3,000.00	FY 16/17 Budget Amount
	$	**2,058.70**	**FY 16/17 Budget Amount Remaining**

Source: Unaudited financial data from the City's accounting records.

Updated as of: 1/26/17

Attachment: Nov 2016 - Discretionary Accounts & Reimbursables Report (2460 : COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR



COUNCIL DISTRICT 5

Fiscal Year 2016/2017 Council Discretionary Expenditures

Account: 1010-10-01-10010-620115

July 1 2016 - November 30, 2016

Date		Amount	Description
7/1/2016	$	25.00	LCC Riverside County Division General Meeting 7/11/16
7/18/2016	$	60.00	Sponsor - Moreno Valley High School Class Reunion 1966
8/3/2016	$	216.00	Sponsorship LoveFest Event 8/13/16
8/3/2016	$	75.00	Honor our Heroes Veterans Cementary Fundraiser Event 10/22/16
8/30/2016	$	(47.75)	Reimbursement of Ticket for Council Member Jempson to MASH BASH event
8/31/2016	$	94.96	MASH BASH - March Air Field Museum 10/13/16
9/20/2016	$	45.00	BIA Desert Water Panel Meeting
9/28/2016	$	20.00	MVCC Wake-Up Moreno Valley 9/28/16
10/4/2016	$	15.00	Adelante Meeting 10/4/16
10/5/2016	$	40.00	LOC Division Meeting Inland Empire Division 10/21/16
10/7/2016	$	25.00	LOC Annual Conference Breakfast Meeting 10/7/16
10/13/2016	$	443.00	Universal Soccer Sponsorship of park rental fees
11/4/2016	$	25.00	Moreno Valley College Second Annual Veterans Scholarship Breakfast
11/14/2016	$	15.00	Carols By Candlelight MV Master Chorale Concert
11/14/2016	$	739.00	Sponsorship of MVUSD Facility Use for Victory Outreach Event
11/19/2016	$	65.00	452nd Air Mobility Wing Military Ball
11/28/2016	$	246.75	Sponsorship of Operation Holiday Cheer
	$	2,101.96	TOTAL Council Discretionary Expenditures for FY 16/17
	$	3,000.00	FY 16/17 Budget Amount
	$	**898.04**	**FY 16/17 Budget Amount Remaining**

Source: Unaudited financial data from the City's accounting records.

Updated as of: 1/26/17

Attachment: Nov 2016 - Discretionary Accounts & Reimbursables Report (2460 : COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR

Reports on Reimbursable Activities November 1, 2016 – November 30, 2016			
Council Member	Date	Meeting	Cost
Jeffrey J. Giba	11/4/2016	Moreno Valley College Second Annual Veterans Scholarship Breakfast	$25.00
	11/6/2016	MVCC Wake Up Moreno Valley	$20.00
	11/19/2016	452nd Air Mobility Wing Military Ball	$65.00
	11/30/2016	Mobility 21 Transportation Meeting	$11.19
Dr. Yxstian A. Gutierrez	11/4/2016	Moreno Valley College Second Annual Veterans Scholarship Breakfast	$25.00
George E. Price	11/4/2016	Moreno Valley College Second Annual Veterans Scholarship Breakfast	$25.00
	11/15/2016	Reimbursement of phone call to Council Meeting from NY	$44.00
	11/19/2016	452nd Air Mobility Wing Military Ball	$130.00
	11/28/2016	Sponsorship of Operation Holiday Cheer	$100.00
	11/28/2016	Sponsorship of Toy Drive	$100.00
	11/30/2016	BIA Riverside County Meeting	$45.00
Jesse L. Molina	11/4/2016	Moreno Valley College Second Annual Veterans Scholarship Breakfast	$25.00
	11/19/2016	452nd Air Mobility Wing Military Ball	$130.00
D. LaDonna Jempson	11/4/2016	Moreno Valley College Second Annual Veterans Scholarship Breakfast	$25.00
	11/14/2016	Carols By Candlelight MV Master Chorale Concert	$15.00
	11/14/2016	Sponsorship of MVUSD Facility Use for Victory Outreach Event	$739.00
	11/19/2016	452nd Air Mobility Wing Military Ball	$65.00
	11/28/2016	Sponsorship of Operation Holiday Cheer	$246.75

NOTIFICATION

Publication of Agenda

PREPARATION OF STAFF REPORT

Prepared By:
Angel Migao
Executive Assistant to Mayor/City Council

Department Head Approval:
Marie Macias
Interim City Clerk

Attachment: Nov 2016 - Discretionary Accounts & Reimbursables Report (2460 : COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR



MAYOR DIFFERENTIAL

Fiscal Year 2016/2017 Council Discretionary Expenditures
Account: 1010-10-01-10010-620130
July 1, 2016 - December 31, 2016

Date		Amount	Description
	$	-	No expenditures to report for July, August, September and October.
11/4/2016	$	25.00	Moreno Valley College Second Annual Veterans Scholarship Breakfast
12/7/2016	$	11.19	CA Transportation Commission Holiday Reception
	$	36.19	TOTAL Council Discretionary Expenditures for FY 16/17 (Mayor Differential)
	$	3,000.00	FY 16/17 Budget Amount
	$	**2,963.81**	**FY 16/17 Budget Amount Remaining**

Source: Unaudited financial data from the City's accounting records.
Updated as of: 1/26/17

Attachment: Dec 2016 - Discretionary Accounts & Reimbursables Report (2460 : COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR



COUNCIL DISTRICT 1

Fiscal Year 2016/2017 Council Discretionary Expenditures

Account: 1010-10-01-10010-620111

July 1, 2016 - December 31, 2016

Date		Amount	Description
7/31/2016	$	14.95	Audible books membership for community book reading group
8/31/2016	$	(44.85)	Audible books membership - 4 months credit and cancellation of services
9/1/2016	$	8.00	Parking County of Riverside SCAG Meeting
9/14/2016	$	35.00	March ARB Tour and Breakfast
9/16/2016	$	25.00	LOC Media & Crisis Communication Training
9/24/2016	$	20.00	MVCC Wake-Up Moreno Valley
9/29/2016	$	100.00	7th Annual Inland Empire Economic Forecast Event
10/20/2016	$	259.00	T-Now Luncheon Meeting
10/20/2016	$	50.00	17th Annual Raincross Trophy Dinner
10/29/2016	$	500.00	Palm Middle School PTSA Fun Run Event
11/4/2016	$	25.00	Moreno Valley College Second Annual Veterans Scholarship Breakfast
11/19/2016	$	130.00	452nd Air Mobility Wing Military Ball
12/8/2016	$	67.61	Mileage for travel to SoCal Latina@ Mayors Policy Seminar
12/21/2016	$	20.00	LOC Riverside County Division Meeting
	$	1,209.71	TOTAL Council Discretionary Expenditures for FY 16/17
	$	3,000.00	FY 16/17 Budget Amount
	$	**1,790.29**	**FY 16/17 Budget Amount Remaining**

Source: Unaudited financial data from the City's accounting records.

Updated as of: 1/26/17

Attachment: Dec 2016 - Discretionary Accounts & Reimbursables Report (2460 : COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR



COUNCIL DISTRICT 2

Fiscal Year 2016/2017 Council Discretionary Expenditures

Account: 1010-10-01-10010-620112

July 1, 2016 - December 31, 2016

Date		Amount	Description
7/1/2016	$	25.00	LCC Riverside County Division General Meeting
7/31/2016	$	20.00	Wake-up Moreno Valley Meeting
7/31/2016	$	75.00	BIA Riverside County Meeting
8/29/2016	$	50.00	BIA Riverside County Dinner
8/31/2016	$	80.00	BIA Golf/Winery Tour/Dinner
8/31/2016	$	(80.00)	BIA Golf/Winery Tour/Dinner - Credit/Refund Event
8/31/2016	$	84.70	Sam's Club - farewell refreshments for Commissioner Van Natta
8/31/2016	$	29.17	Albertson's - farewell refreshments for Commissioner Van Natta
8/31/2016	$	93.00	The Cupcake & Espresso Bar -farwell reception Commision Van Netta
8/31/2016	$	47.75	MASH BASH March Field Air Museum Event
8/19/2016	$	317.83	Durden Plaque Installation Ceremony Refreshments
9/6/2016	$	15.00	Adelante
9/20/2016	$	45.00	BIA Desert Water Panel Meeting
10/3/2016	$	100.00	Sponsorship of Victory Outreach Church Live Entertainment Event
10/4/2016	$	50.00	The Salvation Army 7th Annula Soup-er Stars Luncheon
10/5/2016	$	50.00	2016 State of Riverside County Luncheon
10/7/2016	$	25.00	LOC Annual Conference Breakfast Meeting
10/8/2016	$	47.75	MASH BASH March Field Air Museum Event
10/11/2016	$	100.00	Bright Angels at Heart Autism Campaign Dinner
10/14/2016	$	125.00	BIA Riverside County Installation & Awards Celebration
10/14/2016	$	40.00	LOC Riverside County Division General Meeting and Dinner
10/20/2016	$	50.00	17th Annual Raincross Trophy Dinner
11/4/2016	$	25.00	Moreno Valley College Second Annual Veterans Scholarship Breakfast
11/6/2016	$	20.00	MVCC Wake-Up Moreno Valley
11/19/2016	$	65.00	452nd Air Mobility Wing Military Ball
11/30/2016	$	11.19	Mobility 21 Transporation Meeting
12/15/2016	$	55.00	Desert Builder Panel BIA Palm Desert Meeting
	$	1,566.39	TOTAL Council Discretionary Expenditures for FY 16/17
	$	3,000.00	FY 16/17 Budget Amount
	$	**1,433.61**	**FY 16/17 Budget Amount Remaining**

Source: Unaudited financial data from the City's accounting records.

Updated as of: 1/26/17

Attachment: Dec 2016 - Discretionary Accounts & Reimbursables Report (2460 : COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR



COUNCIL DISTRICT 3
Fiscal Year 2016/2017 Council Discretionary Expenditures
Account: 1010-10-01-10010-620113
July 1, 2016 - December 31, 2016

Date		Amount	Description
7/1/2016	$	25.00	LCC Riverside County Division General Meeting 7/11/16
7/31/2016	$	20.00	MVCC Wake-up Moreno Valley Meeting 7/27/16
7/31/2016	$	241.64	Sponsor - MV Parks & Community Services - Programs/Classes Fee Sponsorship
8/24/2016	$	20.00	MVCC Wake-up Moreno Valley Meeting 8/24/16
9/6/2016	$	15.00	Adelante 9/6/16
9/28/2016	$	35.00	March ARB Tour & 452nd Air Mobility Wing Civic Leader Tour & Breakfast
9/28/2016	$	20.00	MVCC Wake-Up Moreno Valley
10/5/2016	$	50.00	2016 State of Riverside County Luncheon
10/7/2016	$	25.00	LOC Annual Conference Breakfast Meeting
10/26/2016	$	20.00	MVCC Wake-up Moreno Valley Meeting 10/25/16
11/4/2016	$	25.00	Moreno Valley College Second Annual Veterans Scholarship Breakfast
11/15/2016	$	44.00	Reimbursement of phone call to Council Meeting from NY
11/19/2016	$	130.00	452nd Air Mobility Wing Military Ball
11/28/2016	$	100.00	Sponsorship of Operation Holiday Cheer
11/28/2016	$	100.00	Sponsorship of Toy Drive
11/30/2016	$	45.00	BIA Riverside County Meeting
12/15/2016	$	45.00	BIA Desert Region Builder Panel Meeting
	$	960.64	TOTAL Council Discretionary Expenditures for FY 16/17
	$	3,000.00	FY 16/17 Budget Amount
	$	**2,039.36**	**FY 16/17 Budget Amount Remaining**

Source: Unaudited financial data from the City's accounting records.
Updated as of: 1/26/17

Attachment: Dec 2016 - Discretionary Accounts & Reimbursables Report (2460 : COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR



COUNCIL DISTRICT 4
Fiscal Year 2016/2017 Council Discretionary Expenditures
Account: 1010-10-01-10010-620114
July 1, 2016 - December 31, 2016

Date		Amount	Description
7/31/2016	$	20.00	Wake-up Moreno Valley Meeting 7/27/16
			No expenditures to report for August 2016
9/20/2016	$	300.00	Rancho Belago Cowboys Football Team Sponsorship 9/20/16
9/26/2016	$	621.30	Sponsorship of Victory Outreach Church Live Entertainment Event
			No expenditures to report for October 2016
			No expenditures to report for November 2016
			No expenditures to report for December 2016
	$	941.30	TOTAL Council Discretionary Expenditures for FY 16/17
	$	3,000.00	FY 16/17 Budget Amount
	$	**2,058.70**	**FY 16/17 Budget Amount Remaining**

Source: Unaudited financial data from the City's accounting records.
Updated as of: 1/26/17

Attachment: Dec 2016 - Discretionary Accounts & Reimbursables Report (2460 : COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR



COUNCIL DISTRICT 5

Fiscal Year 2016/2017 Council Discretionary Expenditures

Account: 1010-10-01-10010-620115

July 1 2016 - December 31, 2016

Date		Amount	Description
7/1/2016	$	25.00	LCC Riverside County Division General Meeting 7/11/16
7/18/2016	$	60.00	Sponsor - Moreno Valley High School Class Reunion 1966
8/3/2016	$	216.00	Sponsorship LoveFest Event 8/13/16
8/3/2016	$	75.00	Honor our Heroes Veterans Cementary Fundraiser Event 10/22/16
8/30/2016	$	(47.75)	Reimbursement of Ticket for Council Member Jempson to MASH BASH event
8/31/2016	$	94.96	MASH BASH - March Air Field Museum 10/13/16
9/20/2016	$	45.00	BIA Desert Water Panel Meeting
9/28/2016	$	20.00	MVCC Wake-Up Moreno Valley 9/28/16
10/4/2016	$	15.00	Adelante Meeting 10/4/16
10/5/2016	$	40.00	LOC Division Meeting Inland Empire Division 10/21/16
10/7/2016	$	25.00	LOC Annual Conference Breakfast Meeting 10/7/16
10/13/2016	$	443.00	Universal Soccer Sponsorship of park rental fees
11/4/2016	$	25.00	Moreno Valley College Second Annual Veterans Scholarship Breakfast
11/14/2016	$	15.00	Carols By Candlelight MV Master Chorale Concert
11/14/2016	$	739.00	Sponsorship of MVUSD Facility Use for Victory Outreach Event
11/19/2016	$	65.00	452nd Air Mobility Wing Military Ball
11/28/2016	$	246.75	Sponsorship of Operation Holiday Cheer
	$	2,101.96	TOTAL Council Discretionary Expenditures for FY 16/17
	$	3,000.00	FY 16/17 Budget Amount
	$	**898.04**	**FY 16/17 Budget Amount Remaining**

Source: Unaudited financial data from the City's accounting records.

Updated as of: 1/26/17

Attachment: Dec 2016 - Discretionary Accounts & Reimbursables Report (2460 : COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR

Reports on Reimbursable Activities December 1, 2016 – December 31, 2016			
Council Member	Date	Meeting	Cost
Jeffrey J. Giba	12/15/2016	Desert Region Builder Panel – BIA Palm Desert Event	$55.00
Dr. Yxstian A. Gutierrez	12/7/2016	CA Transportation Commission Holiday Reception	$11.19
Victoria Baca	12/8/2016	Mileage travel to SoCal Latin@ Mayors Policy Seminar	$67.61
	12/21/2016	MVCC Wake Up Moreno Valley	$20.00
David Marquez	12/15/2016	Desert Region Builder Panel – BIA Palm Desert Event	$55.00

Notification

Publication of Agenda

Preparation of Staff Report

Prepared By:
Angel Migao
Executive Assistant to Mayor/City Council

Department Head Approval:
Marie Macia
Interim City Clerk

Attachment: Dec 2016 - Discretionary Accounts & Reimbursables Report (2460 : COUNCIL DISCRETIONARY EXPENDITURE REPORTS FOR

Report to City Council

TO: Mayor and City Council

FROM: Terrie Stevens, Administrative Services Director

AGENDA DATE: February 7, 2017

TITLE: LIST OF PERSONNEL CHANGES

RECOMMENDED ACTION

Recommendation:

1. Ratify the list of personnel changes as described.

DISCUSSION

The attached list of personnel changes scheduled since the last City Council meeting are presented for City Council ratification.

Staffing of City positions ensures assignment of highly qualified and trained personnel to achieve Momentum MoVal priorities, objectives and initiatives.

FISCAL IMPACT

All position changes are consistent with appropriations previously approved by the City Council.

PREPARATION OF STAFF REPORT

Prepared By:
Terrie Stevens
Administrative Services Director

Department Head Approval:
Terrie Stevens
Administrative Services Director

CITY COUNCIL GOALS

None

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

ATTACHMENTS

1. Personnel Changes 2.7.17

APPROVALS

Budget Officer Approval	✓ Approved	1/18/17 9:44 AM
City Attorney Approval	✓ Approved	1/25/17 9:16 AM
City Manager Approval	✓ Approved	1/26/17 8:59 AM

City of Moreno Valley
Personnel Changes
February 7, 2017

New Hires

None

Promotions

Barbara Hamilton
From: Senior Office Assistant, Public Works/Capital Projects
To: Senior Administrative Assistant, Public Works/Transportation

Heather Knight
From: Recreation Aide (Part-Time Temp), Parks & Community Services
To: Recreation Program Leader (Part-Time Career), Parks & Community Services

Transfers

None

Separations

Robert Roseen
Cable TV Producer
City Manager's Office/Technology Services Division

Attachment: Personnel Changes 2.7.17 [Revision 2] (2441 : LIST OF PERSONNEL CHANGES)

Report to City Council

TO: Mayor and City Council

FROM: Marshall Eyerman, Chief Financial Officer

AGENDA DATE: February 7, 2017

TITLE: APPROVE AGREEMENT BETWEEN THE CITY OF MORENO VALLEY AND HOMETOWN CONNECTIONS INTERNATIONAL, LLC FOR STRATEGIC FACILITATION SERVICES FOR MORENO VALLEY UTILITY

RECOMMENDED ACTION

Recommendation:

1. Approve Agreement between the City of Moreno Valley and Hometown Connections International, LLC for Strategic Facilitation Services for Moreno Valley Utility.

SUMMARY

Objective 4.1 of the City's Strategic Plan, Momentum MoVal, calls for the development of a strategic plan for Moreno Valley Utility to prepare for the December 31, 2020 expiration of the ENCO Utility Services Agreement.

Prior to developing a strategic plan, there are some steps Moreno Valley Utility must take to assess current operations, review opportunities for the future, and establish some general broad based goals for the utility. This report recommends approval of an agreement with Hometown Connections International, LLC to facilitate these first steps which will provide the foundation to the strategic plan for Moreno Valley Utility. The cost of the proposed services is $14,500.

This item was presented to the Utilities Commission on January 25, 2017.

DISCUSSION

Prudent utility planning calls for the development of a strategic plan that focuses on the long-term health of the utility and describes the utility's purpose, direction, priorities, and progress.

There are a number of critical issues currently facing MVU that require direction from City Council and need to be considered in MVU's strategic plan. Among these issues are the following items, not necessarily in order of importance:

1. Expiration of the agreement with ENCO Utility Services
2. Achieving renewable energy goals
3. Funding financial reserves
4. Building a reliable distribution system
5. Power supply – Purchase and/or generation
6. MVU's role in the City's economic development goals
7. Maintaining parity with SCE rates
8. Analyzing the impacts of solar

One of the objectives of the strategic plan is to develop an understanding of how these issues are related; for example, the decision to own generation has impacts on rates, financial performance (cash flow, liquidity, and capital structure), reliability, and power supply costs. The direction provided by the City Council and the Utilities Commission through the strategic planning process will determine the future business model and organizational structure of MVU.

Hometown Connections International, LLC is the utility services subsidiary of the American Public Power Association and specializes in strategic planning for public power utilities. Staff from Hometown Connections will facilitate sessions with the Utilities Commission and the City Council to review and prioritize major issues facing Moreno Valley Utility. The identification of these items can then be utilized as a foundation to assist in the development of the strategic plan.

ALTERNATIVES

1. Approve the Agreement Terms between the City of Moreno Valley and Hometown Connections International, LLC. and authorize execution of a contract in a form approved by the City Attorney. *Staff recommends this alternative. Approval of the Agreement will help Moreno Valley Utility to achieve Objective 4.1 of the City's Strategic Plan.*
2. Do not approve the Agreement Terms between the City of Moreno Valley and Hometown Connections International, LLC. *Staff does not recommend this alternative, as it will not help the utility to achieve Objective 4.1 of the City's Strategic Plan.*

FISCAL IMPACT

Funds are available in account number 6010-30-80-45510-620299, Professional Services – Other to facilitate sessions with the Utilities Commission and the City Council. The amount of the proposed agreement is $14,500.

NOTIFICATION

Publication of Agenda.

PREPARATION OF STAFF REPORT

Prepared By:
Jeannette Olko
Electric Utility Division Manager

Department Head Approval:
Marshall Eyerman
Chief Financial Officer/City Treasurer

CITY COUNCIL GOALS

Revenue Diversification and Preservation. Develop a variety of City revenue sources and policies to create a stable revenue base and fiscal policies to support essential City services, regardless of economic climate.

Positive Environment. Create a positive environment for the development of Moreno Valley's future.

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

Objective 4.1: Develop a Moreno Valley Utility Strategic Plan to prepare for the 2020 expiration of the ENCO Utility Systems agreement.

ATTACHMENTS

1. Hometown Connections Proposal

APPROVALS

Budget Officer Approval	✓ Approved	1/18/17 5:05 PM
City Attorney Approval	✓ Approved	1/25/17 9:30 AM
City Manager Approval	✓ Approved	1/26/17 8:59 AM

Proposal to City of Moreno Valley

For Strategic Facilitation Services

Moreno Valley, California

Prepared by
Hometown Connections, International, LLC
A Subsidiary of the American Public Power Association
March 4, 2016

Hometown Connections®
DELIVERING VALUE TO PUBLIC POWER

Attachment: Hometown Connections Proposal [Revision 1] (2440 : APPROVE AGREEMENT WITH HOMETOWN CONNECTIONS)

Hometown Connections®

DELIVERING VALUE TO PUBLIC POWER

Proposal to City of Moreno Valley

For Strategic Facilitation Services

Introduction

Hometown Connections is pleased to present this proposal to City of Moreno Valley (Moreno Valley) for Strategic Facilitation services. Hometown Connections has had the pleasure of working with dozens of public power systems across the nation in providing them consulting and facilitation assistance in the areas of visioning, strategic planning, performance assessment, market research, customer service and governance. We would be honored to have the opportunity to support Moreno Valley in its own planning efforts.

Since its creation in 1998, Hometown Connections and its many partners have existed to support public power efforts. Strategic planning has been a mainstay of Hometown Connections' efforts from day one. In the intervening years, not only has the electric industry experienced a great deal of change, so too has Hometown Connections' approach to strategic planning, as it continues to adapt it for the public power market. Public power as a concept occupies an interesting place. As the provider of discrete and measureable commodity, which is utilized directly by those paying for it, it resembles a for-profit model and indeed counts among its "competitors" the for-profit investor-owned utilities. And yet as a public non-private institution, public power provides a degree of accountability, access and transparency quite different from a typical for-profit company. Hometown Connections has blended several different approaches to strategic planning, the result being a philosophy that recognizes the need to be financially competitive and customer-focused, while also operating transparently and with recognition of variety of stakeholders who seek involvement in discussions of strategy and service.

Hometown Connections staff has worked with each of these stakeholder groups, including utility staff, boards and city councils, key accounts, special interest groups and customers. We have an extensive understanding of the issues that affect public power and the many forces – external and internal – that push public power in many directions, often simultaneously. Our staff have facilitated board retreats, conducted focus groups, interviewed key players, met with customers, trained utility employees and boards and served as a resource to literally hundreds of public power systems.

We are confident that we can bring great value to Moreno Valley as it seeks to address several important issues with both long and short term implications on the utility's future.

Thank you for the opportunity to present this proposal to you.

Attachment: Hometown Connections Proposal [Revision 1] (2440 : APPROVE AGREEMENT WITH HOMETOWN CONNECTIONS)

Strategic Facilitation Services – Moreno Valley Electric Utility (MVU)

Facilitation Session with the Moreno Valley City Council and MVU Staff

This project provides an opportunity for the MVU City Council and Staff to take a more deliberative approach in identifying and assessing potentially significant changes in the role that MVU plays in Moreno Valley. In our rapidly evolving industry, factors ranging from new technologies to new state and federal activism to changing customer expectations and needs, will all come together to present both challenges and opportunities for today's electric utility. New players are seeking ways to serve electricity customers, while old players are reconsidering what roles they wish to continue serving. Hometown Connections proposes two separate, half day, facilitated workshops for the Moreno Valley City Council.

The workshops would focus on a combination of presentation and discussion on the wide range of issues at the national, state and local level that will affect MVU's business model and its customers. Issues will be reviewed, prioritized and potential responses by the utility generated. At the conclusion of the workshops, city council members will have an understanding of important industry issues and initial alignment around those deemed of the highest priority. The city council will also seek consensus on future direction of the utility, a timeline for next steps, which could include customer engagement obtaining feedback from customers, stakeholders and other current or potential collaborators in future MVU activities. It could also include the development of a formal strategic plan for the utility to have a "road map" of its future direction and the goals of the organization.

Activities: Two onsite facilitated half days with two facilitators and offsite research as needed. Estimated time required: 2 days, plus associated travel.

Additional Facilitation Services

Additional facilitation services would be provided at the standard rate. These services could include the following:

- Market Research
- Organization Check Up
- Strategic Planning
- Governance Training

Activities: To be determined.

Attachment: Hometown Connections Proposal [Revision 1] (2440 : APPROVE AGREEMENT WITH HOMETOWN CONNECTIONS)

Project Team

The Project Team would consist of three members of the Hometown Connections consulting team: Tim Blodgett, Phyllis Currie and Bill Smart.

a. Tim Blodgett: Mr. Blodgett has held the positions of President and CEO of Hometown Connections, the utility services subsidiary of the American Public Power Association, since January 2001. Mr. Blodgett is responsible for Hometown's overall efforts in delivering value to public power utilities. Mr. Blodgett has worked with many public power utilities in the area of strategic consulting management consulting with an emphasis on continuous improvement and is a frequent guest speaker at industry forums across the country. Mr. Blodgett joined Hometown in May of 1998 as the Vice President, Sales and Marketing where he assisted in the molding of a startup organization into a well-recognized company known for value adding products and services specifically designed to meet public power's needs.

   Tim is a graduate of Northwestern Oklahoma State University in Business Management.

   Tim's experience with strategic planning and management consulting in public power includes:
   - Turlock Irrigation District (CA)
   - City of Riverside Public Utilities (CA)
   - Lodi Electric Utility (CA)
   - Roseville Electric Utility (CA)
   - Grand Haven Board of Light & Power (MI)
   - Columbia Power and Water Systems (TN)
   - Muscatine Power and Water (IA)
   - Easton Utilities Commission (MD)
   - Jamestown Board of Public Utilities (NY)
   - Northern Wasco PUD (OR)
   - Benton County PUD (WA)

b. Phyllis Currie joined the Hometown Connections consulting team in August 2015. Prior to joining Hometown, Ms. Currie was the General Manager of Pasadena Water and Power (PWP), which serves the city of Pasadena and portions of the county. Under her leadership, PWP has added new electric generation units to its power plant, added a water treatment plant funded by the National Aeronautics and Space Administration to clean up ground water contamination; embarked on multi-year infrastructure improvement programs to upgrade the city's water and electrical distribution systems, and developed aggressive goals for renewable energy and water conservation. Prior to her time at Pasadena, Ms. Currie spent 30-years with the city of Los Angeles, where she held the positions of Chief Financial Officer for the Los Angeles Department of Water and Power; Assistant City Administrative Officer overseeing development of the city's annual operating and capital budgets and director of the Los Angeles rent control program.

Attachment: Hometown Connections Proposal [Revision 1] (2440 : APPROVE AGREEMENT WITH HOMETOWN CONNECTIONS)

Ms. Curries experience with strategic planning, utility management and operations includes:

- Los Angeles Department of Water and Power
- Pasadena Water and Power
- Board chair of the American Public Power Association
- President of the California Municipal Utilities Association
- President of the Southern California Public Power Authority
- Recently appointed to the Electricity Advisory Committee for the U. S. Department of Energy

c. Bill Smart is the Sr. V.P. of Business Development for Hometown Connections. His duties include partner research, contract negotiations and strategic planning. Bill is also the primary sales contact in the Western U.S. for Hometown services. Bill has been with Hometown for 18 years, since its inception.

d. Other Resources: While not specifically proposed or budgeted in this proposal, Hometown Connections also utilizes the services of our market research partner, GreatBlue Research. Should further scoping suggest the desire for customer, key account or employee surveys, we would be happy to provide additional pricing or information on these options.

Project Budget

Consulting Rates: Hometown Connections' charges a daily rate of $2,500 day for onsite consulting. Offsite consulting, which could include phone interviews, prep work, research or follow-up, are billed at a daily rate of $2,000.

Travel Day: Additionally, for onsite work that requires a day of travel; the travel day charge is $1,500. Typically onsite work results in a single travel day charge, getting to the client's site. Customary travel expenses are billed at cost.

Costs by Project:

Facilitation sessions with Moreno Valley City Council and MVU Staff: **$14,500 (includes two, ¾ day onsite consulting for two facilitators, two days offsite consulting including summary report preparation, and two travel days for one facilitator) plus travel expense billed at cost.**

Additional Facilitation Services: **To Be Determined**

Hometown Connections is happy to modify this scope of work should the client deem changes are appropriate.

Schedule

To be determined

Attachment: Hometown Connections Proposal [Revision 1] (2440 : APPROVE AGREEMENT WITH HOMETOWN CONNECTIONS)

Report to City Council

TO: Mayor and City Council

FROM: Marshall Eyerman, Chief Financial Officer

AGENDA DATE: February 7, 2017

TITLE: RESOLUTIONS OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY AND THE CITY COUNCIL IN ITS CAPACITY AS COMMISSIONERS OF THE CITY OF MORENO VALLEY HOUSING AUTHORITY TO AUTHORIZE AND APPROVE AN EXTENSION OF TIME UNDER THE HEALTH AND SAFETY CODE SECTION 33334.16 FOR DEVELOPMENT OF AFFORDABLE HOUSING

RECOMMENDED ACTION

Recommendation:

1. Approve Resolution No. 2017-07, a Resolution of the City Council of the City of Moreno Valley, California, Approving an Extension of Time under Health and Safety Code Section 33334.16 and affirming the Intention of the City Council that the Property be Used Directly or Indirectly in the Manner Prescribed by Health and Safety Code Section 33334.16.

SUMMARY

This report recommends that the City Council and the City Council in their Capacity as Commissioners of the Moreno Valley Housing Authority ("Housing Authority") authorize and approve resolutions to grant an extension of time to the maximum period allowed in accordance with California's Health and Safety Code Section 33334.16 for the deployment of properties acquired with low and moderate income housing funds for the development of affordable housing.

DISCUSSION

On March 8 2011, the City Council adopted Resolution No. 2011-25 in response to the Governor's 2011-2012 proposed budget that included a plan to potentially dissolve

redevelopment agencies and distribute redevelopment funding to local agencies to pay necessary outstanding debts. Resolution No. 2011-25 established a local Housing Authority to carry out the ministerial actions as authorized under Housing Authority Law. The Resolution provided for such activities as ongoing monitoring of covenant units for compliance as to income limits and affordability, the maintenance of properties, the ability to enter into agreements with developers for the construction, maintenance and operation of housing developments and the ability to enter into other contracts and provide those services as the Housing Authority Law authorizes.

On April 25, 2012, Resolution Nos. OB 2012-08 and OB 2012-09 were approved by the Oversight Board for the Successor Agency to the Community Redevelopment Agency ("RDA") of the City of Moreno Valley. Resolution No. OB 2012-08 ratified the list of properties held by the former RDA and allowed for the transfer of these Housing Properties to the Moreno Valley Housing Authority. Resolution No. OB 2012-09 ratified the list of housing assets held by the former RDA and allowed for the transfer of these Housing Assets (multi-family and home assistance loans along with assistance programs) to the Moreno Valley Housing Authority.

With the dissolution of redevelopment agencies and in accordance with California's Health and Safety Code Section 33334.16 the deployment of properties acquired with low and moderate income housing funds for the development of affordable housing has a time limit under which properties acquired may be deployed. That time limit is five (5) years.

In October of 2013, the California Legislature approved Senate Bill No. 341 (SB 341). According to this bill the five year time limit redevelopment agencies were given could be extended to initiate activities consistent with the development of affordable housing for low and moderate income families once acquired or from the time it was transferred to a housing successor agency. In accordance with SB 341 the host jurisdiction has the option of extending that five year period by enactment of a resolution, which would extend the time the Housing Authority has available to deploy property for the purpose of developing affordable low and moderate income housing.

Based on SB 341, the City desires to exercise the option to extend the five year time period. This can be accomplished through the authorization and approval of the resolution as listed in this report's recommended action. Approval of the resolution will allow an extension of time for a period of no more than an additional five years in order to deploy the property held by the Moreno Valley Housing Authority, the purpose of which is to provide for additional low and moderate income housing in the community.

ALTERNATIVES

1. Approve the recommended action to approve the resolution to authorize and approve the extension of time for the deployment of property held by the City's Housing Authority in accordance with SB 341 and the Health and Safety Code Section 33334.16 to be used directly or indirectly in the manner prescribed by Section 33334.16. *This alternative allows the City's Housing Authority additional*

time to successfully deploy housing assets, which includes property, for the purpose of developing low and moderate income housing. *This alternative will allow homes to be developed to house families whose incomes fall within the low and moderate income levels.*

2. Do not approve the recommended action to approve the resolution to authorize the extension of time for the deployment of property held by the City's Housing Authority in accordance with SB 341 and the Health and Safety Code Section 33334.16 to be used directly or indirectly in the manner prescribed by Section 33334.16. *This alternative will prevent the City's Housing Authority additional time to successfully deploy housing assets*. *Additionally, in accordance with SB 341, if the time period is not extended, the property must be sold and the monies from the sale, less reimbursement to the agency for the cost of the sale, be deposited in the Low and Moderate Income Housing Fund. These funds may not be enough to fund an equal amount of property that the Housing Authority currently holds, which would lead to less housing opportunities for low and moderate income families.*

FISCAL IMPACT

Currently the City of Moreno Valley Housing Authority holds properties that were acquired for the purpose of providing low and moderate income families with safe and affordable housing opportunities. If the time to deploy these properties expires and housing is not constructed the City may not be able to utilize these properties for future development.

NOTIFICATION

N/A.

PREPARATION OF STAFF REPORT

Prepared By:
Sharon Goodale-Sharp
Management Analyst

Department Head Approval:
Marshall E. Eyerman
Chief Financial Officer/City Treasurer

CITY COUNCIL GOALS

Revenue Diversification and Preservation. Develop a variety of City revenue sources and policies to create a stable revenue base and fiscal policies to support essential City services, regardless of economic climate.

CITY COUNCIL STRATEGIC PRIORITIES

1. Economic Development

2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

ATTACHMENTS

1. Resolution Approving an Extension of Time

APPROVALS

Budget Officer Approval	✓ Approved	1/20/17 11:33 AM
City Attorney Approval	✓ Approved	1/25/17 9:56 AM
City Manager Approval	✓ Approved	1/26/17 10:00 AM

Attachment: Resolution Approving an Extension of Time [Revision 5] (2439 : RESOLUTIONS OF THE CITY COUNCIL AND THE CITY COUNCIL

RESOLUTION NO. 2017-07

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, APPROVING AN EXTENSION OF TIME UNDER HEALTH AND SAFETY CODE SECTION 33334.16 AND AFFIRMING THE INTENTION OF THE CITY COUNCIL THAT THE PROPERTY BE USED DIRECTLY OR INDIRECTLY IN THE MANNER PRESCRIBED BY HEALTH AND SAFETY CODE SECTION 33334.16

WHEREAS, in connection with the dissolution of the Community Redevelopment Agency of the City of Moreno Valley ("Former Agency"), the transfer from the Former Agency to the City of Moreno Valley Housing Authority ("Authority") of certain properties that had been acquired with moneys from the low- and moderate-income housing fund was authorized during February 2012; and

WHEREAS, California Health and Safety Code Section 33334.16 ("Section 33334.16") sets forth a time for certain properties to be deployed for use for the development of affordable housing, which time may be extended upon approval of a resolution so providing by the legislative body; and

WHEREAS, the Authority has engaged in considerable efforts, including negotiations with developers with regard to the marketing of properties for affordable housing purposes. However, the realization of projects has in many instances been complicated and frustrated by the loss of redevelopment funding resources, among other circumstances; and

WHEREAS, the Authority has requested that the City Council of the City of Moreno Valley ("City Council"), as the legislative body for purposes of Section 33334.16, approve an extension of time to the maximum period allowable under Section 33334.16 as to all properties the transfer of which was authorized to the Authority, including without limitation those properties enumerated in Exhibit "A" hereto (all of which properties, including without limitation those listed in Exhibit "A" hereto, collectively, the "Property"); and

WHEREAS, the intention of the City Council is that the Property be used, directly or indirectly, in a manner consistent with the authorization of Section 33334.16.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MORENO VALLEY DOES RESOLVE AS FOLLOWS:

Section 1. The City Council finds and determines that each of the recitals set forth above is true and correct.

Section 2. The City Council hereby authorizes an extension of time for the maximum period allowable under Section 33334.16.

Section 3. The City Clerk shall forward a copy of this Resolution to the Secretary of the Authority for dissemination to the members of the governing board of the Authority.

APPROVED AND ADOPTED this 7th day of February, 2017.

Mayor

ATTEST:

City Clerk

APPROVED AS TO FORM:

City Attorney

Attachment: Resolution Approving an Extension of Time [Revision 5] (2439 : RESOLUTIONS OF THE CITY COUNCIL AND THE CITY COUNCIL

RESOLUTION JURAT

STATE OF CALIFORNIA)

COUNTY OF RIVERSIDE)

CITY OF MORENO VALLEY)

I, Marie Macias, MMC, Interim City Clerk of the City of Moreno Valley, do hereby certify that the foregoing Resolution No. 2017-07 was introduced and adopted at a regular meeting provided by law of the City Council of the City of Moreno Valley held on the 7th day of February, 2017, by the following vote of the members thereof:

AYES:

NOES:

ABSENT:

ABSTAIN:

(Council Members, Mayor Pro Tem and Mayor)

_____

CITY CLERK

(SEAL)

Attachment: Resolution Approving an Extension of Time [Revision 5] (2439 : RESOLUTIONS OF THE CITY COUNCIL AND THE CITY COUNCIL

Property

City of Moreno Valley
Inventory of Assets Received Pursuant to Heath and Safety Code Secton 34176 (a) (2)

Item #	Type of Asset[1]	Legal Title (APN)	Carrying Value of Asset	Total Sq. Ft.	Sq. ft. Reserved for Low-Mod. Housing	Is the Property Encumbered by a Low-Mod Housing Covenant?	Source of Low Mod Housing Covenant by Deed of Trust[2]	Date of Transfer to Housing Successor Agency[3]	Is Construction or Acquisition Costs Funded with Low-Mod Housing Funds?	Is Construction or Acquisition Costs Funded with other RDA Funds?	Is Construction or Acquisition Costs Funded with other Non-RDA Funds?	Date of Construction or Acquisition by the former RDA	Interest in Real Property (Option to purchase easement, etc.)
1	Land	291-191-027	$ 399,000	38,333	38,333	No		April 25, 2012	Yes			April 1, 2008	Fee
2	Land	291-191-028	$ 280,000	14,375	14,375	No		April 25, 2012	Yes			April 1, 2008	Fee
3	Land	291-191-029	$ 540,000	16,117	16,117	No		April 25, 2012	Yes			April 1, 2008	Fee
4	Land	291-191-026	$ 135,000	6,098	6,098	No		April 25, 2012	Yes			June 18, 2003	Fee
5	Land	291-191-025	$ 270,900	10,019	10,019	No		April 25, 2012	Yes			April 1, 2008	Fee
6	Land	291-191-007	$ 151,600	12,632	12,632	No		April 25, 2012	Yes			April 1, 2008	Fee
7	Land	291-191-008	$ 650,000	68,369	68,369	No		April 25, 2012	Yes			April 1, 2008	Fee
8	Land	291-191-009	$ 650,000	67,518	67,518	No		April 25, 2012	Yes			April 1, 2008	Fee
9	Land	291-191-010	$ 472,500	43,560	43,560	No		April 25, 2012	Yes			April 1, 2008	Fee
10	Land	291-191-011	$ 498,750	43,560	43,560	No		April 25, 2012	Yes			April 1, 2008	Fee
11	Land	291-191-012	$ 346,800	10,454	10,454	No		April 25, 2012	Yes			April 1, 2008	Fee
12	Land	291-191-013	$ 393,750	37,519	37,519	No		April 25, 2012	Yes			April 1, 2008	Fee
13	Land	481-270-058	$ 144,303	56,628	56,628	No		April 25, 2012	Yes			April 20, 1994	Fee
14	Land	481-130-022	$ 75,000	21,780	21,780	No		April 25, 2012	Yes			Sept. 14, 1992	Fee
15	Land	481-130-023	$ 75,000	18,295	18,295	No		April 25, 2012	Yes			Sept. 14, 1992	Fee
16	Land	482-020-064	$ 360,000	57,499	57,499	No		April 25, 2012	Yes			Aug. 23, 1995	Fee
17	Land	482-161-021	$ 137,500	174,676	174,676	No		April 25, 2012	Yes			Jan. 26, 1994	Fee
18	Land	482-161-022	$ 137,500	51,400	51,400	No		April 25, 2012	Yes			Jan. 26, 1994	Fee
19	Land	482-161-023	$ 137,500	100,188	100,188	No		April 25, 2012	Yes			Jan. 26, 1994	Fee
20	Land	482-161-024	$ 137,500	49,223	49,223	No		April 25, 2012	Yes			Jan. 26, 1994	Fee
21	Land	485-032-013	$ 137,466	8,712	8,712	No		April 25, 2012	Yes			July 2, 2001	Fee
22	Land	486-084-006	$ 30,000	4,356	4,356	No		April 25, 2012	Yes			Nov. 27, 2007	Fee
23	Land	486-084-011	$ 30,000	4,656	4,656	No		April 25, 2012	Yes			Jan. 28, 2008	Fee

Footnotes:

[1]Asset types may include log-mod housing, mixed-income housing, low-mod housing with commercial space, mixed-income housing with commercial space.

[2] May include California Redevelopment Law, tax credits, state bond indentures, and federal fund requirements.

[3] Date of action by Oversight Board; and as of 2/1/2012 due to AB X 1 26.

Attachment: Exhibit A to Resolution No. 2017-07 [Revision 1] (2439 : RESOLUTIONS OF THE CITY

Report to City Council

TO:	Mayor and City Council
FROM:	Ahmad R. Ansari, P.E., Public Works Director/City Engineer
AGENDA DATE:	February 7, 2017
TITLE:	PA07-0129 (TR 35606) – APPROVE TRACT MAP 35606 LOCATED ON METRIC DRIVE BETWEEN HUBBARD STREET AND PERRIS BOULEVARD. DEVELOPER: METRIC HOMES, LLC

RECOMMENDED ACTION

Recommendations:

1. Approve Tract Map 35606 for PA07-0129.

2. Authorize the City Clerk to sign the map and transmit said map to the County Recorder's Office for recordation.

SUMMARY

This report recommends approval of Tract Map 35606, which is owned by Metric Homes, LLC. The project is located on Metric Drive between Hubbard Street and Perris Boulevard.

DISCUSSION

On April 14, 2011, the Planning Commission of the City of Moreno Valley approved project PA07-0129 (Tract 35606). The developer proposes to subdivide a 4.8 acre parcel into 16 single-family residential lots. A Public Improvement Agreement was approved by City Council on January 3, 2017.

Tract Map No. 35606 is in substantial conformance with the approved tentative map. The Conditions of Approval have been met for map recordation. The developer has requested that the map be approved for recordation.

ENVIRONMENTAL

Planning staff, as is typical with all planning projects, has reviewed the request in accordance with the latest edition of the California Environmental Quality Act (CEQA) Guidelines and has determined the project will not result in any significant effect on the environment and qualifies for an exemption under the provisions of CEQA as a Class 15 Categorical Exemption, CEQA Guidelines, Section 15315 Minor Land Divisions.

ALTERNATIVES

1. Approve and authorize the recommended actions as presented in this staff report. *This alternative will allow the project to move forward with development of sixteen single-family residential lots within the site.*

2. Do not approve and authorize the recommended actions as presented in this staff report. *This alternative will not allow the owner to subdivide the site into sixteen lots in order to build sixteen single-family residential lots.*

FISCAL IMPACT

No fiscal impact is anticipated.

NOTIFICATION

Publication of agenda.

PREPARATION OF STAFF REPORT

Prepared By:
Hoang Nguyen
Associate Engineer

Department Head Approval:
Ahmad R. Ansari, P.E.
Public Works Director/City Engineer

Concurred By:
Michael Lloyd, P.E.
Engineering Division Manager

CITY COUNCIL GOALS

Public Facilities and Capital Projects. Ensure that needed public facilities, roadway improvements, and other infrastructure improvements are constructed and maintained.

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

Objective 4.2: Develop and maintain a comprehensive Infrastructure Plan to invest in and deliver City infrastructure.

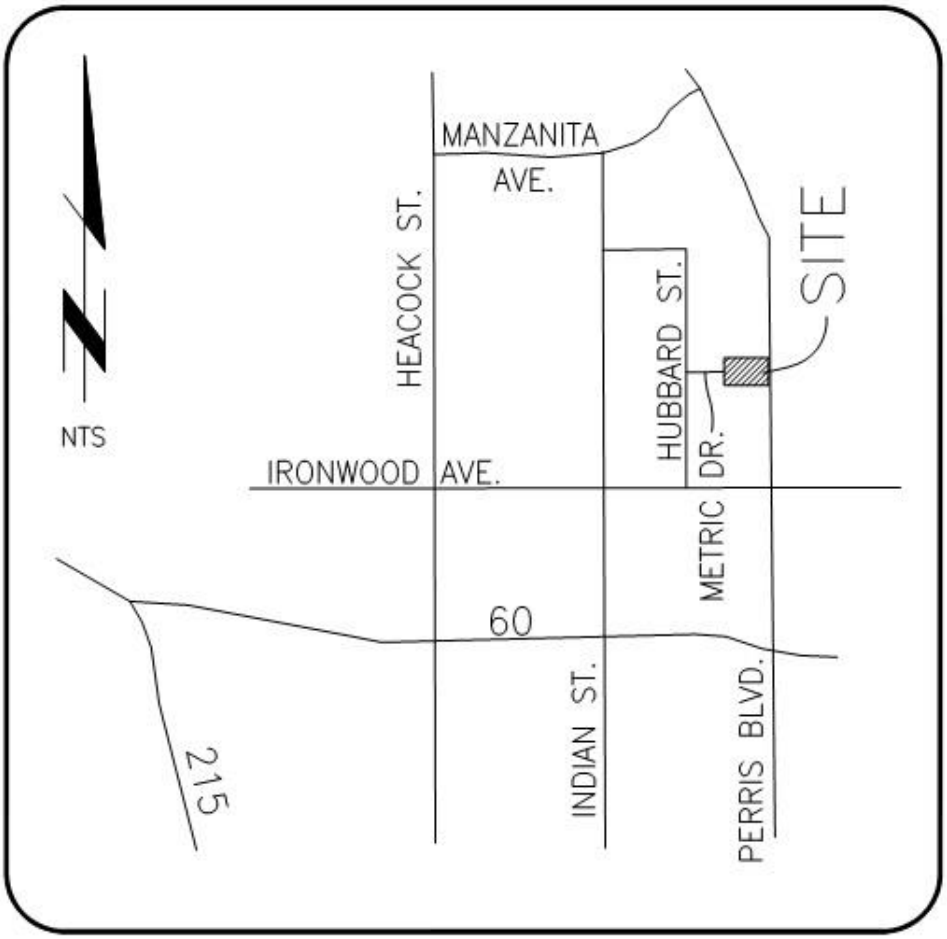
ATTACHMENTS

1. Vicinity Map - PA07-0129 (TR 35606)

APPROVALS

Budget Officer Approval	✓ Approved	1/24/17 1:57 PM
City Attorney Approval	✓ Approved	1/25/17 9:58 AM
City Manager Approval	✓ Approved	1/26/17 9:04 AM

VICINITY MAP



CITY OF MORENO VALLEY **PUBLIC WORKS DEPARTMENT - LAND DEVELOPMENT**	**PA07-0129** **TR 35606**

Attachment: Vicinity Map - PA07-0129 (TR 35606) (2418 : PA07-0129 (TR 35606) – APPROVE TRACT MAP 35606)

Report to City Council

TO: Mayor and City Council

FROM: Marshall Eyerman, Chief Financial Officer

AGENDA DATE: February 7, 2017

TITLE: PAYMENT REGISTER - NOVEMBER 2016

RECOMMENDED ACTION

Recommendation:

1. Receive and file the Payment Register.

SUMMARY

The Payment Register is an important report providing transparency of financial transactions and payments for City activity for review by the City Council and the residents and businesses in Moreno Valley. The report is posted to the City's website as soon as it is available. The report is included in the City Council agenda as an additional means of distributing the report.

The payment register lists in alphabetical order all checks and wires in the amount of $25,000 or greater, followed by a listing in alphabetical order of all checks and wires less than $25,000. The payment register also includes the fiscal year-to-date (FYTD) amount paid to each vendor.

PREPARATION OF STAFF REPORT

Prepared By:
Dena Heald
Financial Operations Division Manager

Department Head Approval:
Marshall Eyerman
Chief Financial Officer/City Treasurer

CITY COUNCIL GOALS

None

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

ATTACHMENTS

1. November 2016 Payment Register

APPROVALS

Budget Officer Approval	✓ Approved	1/06/17 7:55 AM
City Attorney Approval	✓ Approved	1/06/17 7:57 AM
City Manager Approval	✓ Approved	1/26/17 9:59 AM

City of Moreno Valley

Payment Register

For Period 11/1/2016 through 11/30/2016

CHECKS IN THE AMOUNT OF $25,000 OR GREATER

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
BANC OF AMERICA PUBLIC CAPITAL CORP	18718	11/01/2016	W161103	ANNUAL DEBT SERVICE-1997 LEASE REVENUE BONDS REFUNDING-PRINCIPAL/INTEREST	$303,033.80
	18719	11/01/2016	W161104	ANNUAL DEBT SERVICE-1997 VARIABLE RATE COPS-PRINCIPAL/INTEREST	$787,329.60
Remit to: ATLANTA, GA				FYTD:	$1,090,363.40
COMMUNITY NOW	18824	11/21/2016	2001-HSIP	SAFE ROUTES TO SCHOOL OUTREACH PROGRAM-CONSULTANT SERVICES	$25,152.25
Remit to: MORENO VALLEY, CA				FYTD:	$51,427.45
COUNTY OF RIVERSIDE SHERIFF	18725	11/07/2016	SH0000029001	CONTRACT LAW ENFORCEMENT BILLING #1 (7/1-7/20/16)	$1,921,127.64
	18825	11/21/2016	SH0000029187	CONTRACT LAW ENFORCEMENT BILLING #1 (7/21-8/17/16)	$2,721,634.60
Remit to: RIVERSIDE, CA				FYTD:	$15,686,495.04
CROWN TECHNICAL SYSTEMS	18861	11/28/2016	13852 REV	SWITCHGEAR/BUS DUCT-MILESTONE 1-MVU KITCHING ST. SUBSTATION	$641,152.34
Remit to: FONTANA, CA				FYTD:	$641,152.34
EASTERN MUNICIPAL WATER DISTRICT	229976	11/07/2016	OCT-16 11/7/16	WATER CHARGES	$33,446.24
	230019	11/14/2016	OCT-16 11/14/16	WATER CHARGES	$37,843.21
Remit to: LOS ANGELES, CA				FYTD:	$921,954.55

Attachment: November 2016 Payment Register (2414 : PAYMENT REGISTER - NOVEMBER 2016)

City of Moreno Valley

Payment Register

For Period 11/1/2016 through 11/30/2016

Attachment: November 2016 Payment Register (2414 : PAYMENT REGISTER - NOVEMBER 2016)

CHECKS IN THE AMOUNT OF $25,000 OR GREATER

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
ENCO UTILITY SERVICES MORENO VALLEY LLC	18773	11/14/2016	40-323A-09	WORK AUTHORIZATION 40-323A	$448,219.16
		11/14/2016	40-322A-07	WORK AUTHORIZATION 40-322A	
		11/14/2016	40-294B-07	WORK AUTHORIZATION 40-294B	
		11/14/2016	0405-MTS1-SP132	ELECTRIC METER FEES	
		11/14/2016	40-347A-03	WORK AUTHORIZATION 40-347A	
		11/14/2016	40-342A-03	WORK AUTHORIZATION 40-342A	
		11/14/2016	0406-TEMP MF-119	ELECTRIC METER FEES	
		11/14/2016	40-341A-04	WORK AUTHORIZATION 40-341A	
		11/14/2016	40-343A-03	WORK AUTHORIZATION 40-343A	
		11/14/2016	40-348-03	WORK AUTHORIZATION 40-348	
		11/14/2016	40-349A-02	WORK AUTHORIZATION 40-349A	
		11/14/2016	0405-1-214	DISTRIBUTION CHARGES 8/19-9/16/16	
		11/14/2016	40-351-01	WORK AUTHORIZATION 40-351	
		11/14/2016	40-352A-01	WORK AUTHORIZATION 40-352A	
		11/14/2016	40-355-01	WORK AUTHORIZATION 40-355	
		11/14/2016	40-331A-04	WORK AUTHORIZATION 40-331A	
		11/14/2016	40-335A-05	WORK AUTHORIZATION 40-335A	
Remit to: ANAHEIM, CA				FYTD:	$2,684,261.15
ENERGY AMERICA, LLC	18774	11/14/2016	100007 OCT-16	ENERGY PURCHASE/RESOURCE ADEQUACY 10/1-11/1/16	$46,200.00
Remit to: HOUSTON, TX				FYTD:	$285,120.00
EXELON GENERATION COMPANY, LLC	18776	11/14/2016	MVEU-00038A	POWER PURCHASE 10/1-10/31/16	$687,405.44
Remit to: BALTIMORE, MD				FYTD:	$4,349,879.44

City of Moreno Valley

Payment Register

For Period 11/1/2016 through 11/30/2016

CHECKS IN THE AMOUNT OF $25,000 OR GREATER

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
HDR ENGINEERING, INC	18736	11/07/2016	1200016545	DESIGN SERVICES-KITCHING ST SUBSTATION/SWITCHYARD 8/20-10/1/16	$158,358.99
Remit to: CHICAGO, IL				FYTD:	$409,752.91
HILLCREST CONTRACTING, INC	18737	11/07/2016	PB 24144 R	NASON ST. IMPROVEMENTS-CACTUS TO FIR-RETENTION	$434,547.24
		11/07/2016	PB 24100 R	NASON ST. IMPROVEMENTS-CACTUS TO FIR-RETENTION	
Remit to: CORONA, CA				FYTD:	$919,602.78
JDH CONTRACTING	18788	11/14/2016	110316-01	INSTALL NEW ROOF AT MARCH ANNEX	$46,573.00
		11/14/2016	110316-02	TEAR OUT AND REPLACE CONCRETE BASKETBALL COURT-COTTONWOOD GOLF CTR	
Remit to: RIVERSIDE, CA				FYTD:	$179,496.00
LOZANO SMITH, LLP	230024	11/14/2016	2012914	LEGAL SERVICES-SEP 2016-RE: WLC PROJECT	$30,955.82
Remit to: FRESNO, CA				FYTD:	$185,998.22

Attachment: November 2016 Payment Register (2414 : PAYMENT REGISTER - NOVEMBER 2016)

City of Moreno Valley

Payment Register

For Period 11/1/2016 through 11/30/2016

CHECKS IN THE AMOUNT OF $25,000 OR GREATER

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
MARIPOSA HORTICULTURAL ENTERPRISES, INC.	18834	11/21/2016	74125	LANDSCAPE EXTRA WORK-AUG16-ZONE D/IRRIGATION REPAIR AREA 7	$28,862.91
		11/21/2016	74130	LANDSCAPE EXTRA WORK-AUG16-ZONE D/IRRIGATION REPAIR AREA 11	
		11/21/2016	74855	LANDSCAPE MAINT.-SD LMD ZN 02-OCT 2016	
		11/21/2016	74128	LANDSCAPE EXTRA WORK-AUG16-ZONE D/BACKFLOW REPAIR/CEMENT AREA 80	
		11/21/2016	74120	LANDSCAPE EXTRA WORK-AUG16-ZONE D/IRRIGATION REPAIR AREA 80	
		11/21/2016	74597	LANDSCAPE EXTRA WORK-ZONE D-CORRECTIONS TO JULY & AUG INVOICES	
		11/21/2016	74133	LANDSCAPE EXTRA WORK-AUG16-ZONE D/IRRIGATION REPAIR AREA 24	
		11/21/2016	74131	LANDSCAPE EXTRA WORK-AUG16-ZONE D/IRRIGATION REPAIR AREA 42	
		11/21/2016	74129	LANDSCAPE EXTRA WORK-AUG16-ZONE D/INSTALL RAID ANTBAIT VALVE	
		11/21/2016	74854	LANDSCAPE MAINT.-ZONE D-OCT 2016	
		11/21/2016	74126	LANDSCAPE EXTRA WORK-AUG16-ZONE D/AREA 9 WORK-FLOOD CHANNELS	
		11/21/2016	74124	LANDSCAPE EXTRA WORK-AUG16-ZONE D/IRRIGATION REPAIR AREA 19	
		11/21/2016	74132	LANDSCAPE EXTRA WORK-AUG16-ZONE D/IRRIGATION REPAIR AREA 14	
		11/21/2016	74123	LANDSCAPE EXTRA WORK-AUG16-ZONE D/IRRIGATION REPAIR AREA 49	
		11/21/2016	74122	LANDSCAPE EXTRA WORK-AUG16-ZONE D/IRRIGATION REPAIR AREA 7	
		11/21/2016	74127	LANDSCAPE EXTRA WORK-AUG16-ZONE D/IRRIGATION REPAIR AREA 47	

Attachment: November 2016 Payment Register (2414 : PAYMENT REGISTER - NOVEMBER 2016)

City of Moreno Valley

Payment Register

For Period 11/1/2016 through 11/30/2016

Attachment: November 2016 Payment Register (2414 : PAYMENT REGISTER - NOVEMBER 2016)

CHECKS IN THE AMOUNT OF $25,000 OR GREATER

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
MARIPOSA HORTICULTURAL ENTERPRISES, INC.		11/21/2016	74121	LANDSCAPE EXTRA WORK-AUG16-ZONE D/IRRIGATION REPAIR AREA 15	
Remit to: IRWINDALE, CA				FYTD:	$213,951.27
MERCHANTS LANDSCAPE SERVICES INC	18835	11/21/2016	48346	LANDSCAPE MAINT.-SD LMD ZN 04-AUG 2016	$31,210.42
		11/21/2016	48337	LANDSCAPE MAINT.-SD LMD ZN 03 & 03A-AUG 2016	
		11/21/2016	48345	LANDSCAPE MAINT.-ZONES M & S-AUG 2016	
		11/21/2016	48347	LANDSCAPE MAINT.-ZONES E-8, SD LMD ZN 05, 06 & 07-AUG 2016	
Remit to: MONTEREY PARK, CA				FYTD:	$116,808.77
MORENO VALLEY UTILITY	230027	11/14/2016	NOV-16 11/14/16	ELECTRICITY CHARGES	$82,949.11
Remit to: HEMET, CA				FYTD:	$446,853.49
NATIONWIDE COST RECOVERY SERVICES, LLC	18743	11/07/2016	MV M12-A	CONSULTANT SERVICES-FORECLOSURE REGISTRATION PROGRAM	$57,600.00
		11/07/2016	MV M11-A	CONSULTANT SERVICES-FORECLOSURE REGISTRATION PROGRAM	
		11/07/2016	MV M10-A	CONSULTANT SERVICES-FORECLOSURE REGISTRATION PROGRAM	
Remit to: DIAMOND BAR, CA				FYTD:	$114,880.00
PERS HEALTH INSURANCE	18816	11/09/2016	W161101	EMPLOYEE HEALTH INSURANCE	$197,231.26
Remit to: SACRAMENTO, CA				FYTD:	$973,306.10

City of Moreno Valley

Payment Register

For Period 11/1/2016 through 11/30/2016

Attachment: November 2016 Payment Register (2414 : PAYMENT REGISTER - NOVEMBER 2016)

CHECKS IN THE AMOUNT OF $25,000 OR GREATER

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
SOUTHERN CALIFORNIA EDISON 1	229989	11/07/2016	7500716069	WDAT CHARGES-MVU/NANDINA AVE.-SEP16		$64,424.00
		11/07/2016	7500716068	WDAT CHARGES-MVU/GLOBE ST.-SEP16		
		11/07/2016	7500716070	WDAT CHARGES-MVU/FREDERICK AVE.-SEP16		
		11/07/2016	7500716071	WDAT CHARGES-MVU/SUBSTATION 115KV INTERCONNECTION-SEP16		
		11/07/2016	7500716067	WDAT CHARGES-MVU/GRAHAM ST.-SEP16		
		11/07/2016	7500716066	WDAT CHARGES-MVU/IRIS AVE.-SEP16		
		11/07/2016	7500714616	RELIABILITY SERVICE-DLAP_SCE_SEES_HV-JUN16		
		11/07/2016	7500716074	WDAT CHARGES-MVU/24417 NANDINA AVE. SUBSTATION-SEP16		
	230030	11/14/2016	OCT-16 11/14/16	ELECTRICITY CHARGES		$109,238.11
		11/14/2016	707-6081/OCT-16	ELECTRICITY CHARGES		
		11/14/2016	721-3449/OCT-16	IFA CHARGES-SUBSTATION		
		11/14/2016	587-9520/OCT-16	ELECTRICITY-FERC CHARGES/MVU		
	230075	11/21/2016	OCT-16 11/21/16	ELECTRICITY CHARGES		$53,094.42
Remit to: ROSEMEAD, CA					FYTD:	$1,467,275.09
SOUTHERN STATES, LLC	230008	11/07/2016	95789R	4 DISCONNECT SWITCHES FOR KITCHING SUBSTATION		$25,256.45
Remit to: HAMPTON, GA					FYTD:	$25,256.45
STEVEN B. QUINTANILLA A PROFESSIONAL CORPORATION	18750	11/07/2016	JUL-2016	INTERIM CITY ATTORNEY LEGAL SERVICES 7/1-7/31/16		$47,972.50
Remit to: RANCHO MIRAGE, CA					FYTD:	$179,560.00
TENASKA ENERGY, INC	18751	11/07/2016	MOREN0020161021	ELECTRICITY POWER PURCHASE FOR MV UTILITY		$133,346.92
Remit to: ARLINGTON, TX					FYTD:	$256,562.71

City of Moreno Valley

Payment Register

For Period 11/1/2016 through 11/30/2016

CHECKS IN THE AMOUNT OF $25,000 OR GREATER

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
THE ADVANTAGE GROUP/ FLEX ADVANTAGE	18752	11/07/2016	94703	FLEX AND COBRA ADMIN FEES-OCT16		$43,944.00
		11/07/2016	201611	RETIREE MEDICAL BENEFIT BILLING-NOV16		
Remit to: TEMECULA, CA					FYTD:	$229,901.15
THINK TOGETHER, INC	18847	11/21/2016	111-16/17-4	ASES PROGRAM MANAGEMENT SERVICES-INSTALLMENT #4		$494,890.00
Remit to: SANTA ANA, CA					FYTD:	$1,984,240.00
U.S. BANK/CALCARDS	18753	11/07/2016	10-27-16	CALCARD ACTIVITY-OCT16		$191,534.77
Remit to: ST. LOUIS, MO					FYTD:	$1,135,113.61
VANCE CORPORATION	18851	11/21/2016	Reche-11	RECHE VISTA REALIGNMENT-CONSTRUCTION SERVICES		$313,819.08
Remit to: RIALTO, CA					FYTD:	$1,295,203.41
VIRGINIA TRANSFORMER CORP	18810	11/14/2016	48904A	TRANSFORMER (SECOND UNIT) FOR MVU KITCHING ST. SUBSTATION		$441,264.46
		11/14/2016	48846A	TRANSFORMER (FIRST UNIT) FOR MVU KITCHING ST. SUBSTATION		
Remit to: ROANOKE, VA					FYTD:	$1,024,140.46
WELLS FARGO CORPORATE TRUST	18764	11/08/2016	W161105	DEBT SERVICE-SPECIAL TAXES (CFD#7 IMP AREA 1)		$35,458.01
	18817	11/15/2016	W161102	2013 TRIP COPS DEBT SERVICE		$495,612.82
Remit to: MINNEAPOLIS, MN					FYTD:	$4,857,585.31
WILLDAN ENGINEERING	18813	11/14/2016	002-17179	PLAN CHECK & INSPECTION SERVICES FOR BLDG. & SAFETY-SEP16		$40,554.37
Remit to: ANAHEIM, CA					FYTD:	$355,439.90

City of Moreno Valley

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CHECKS IN THE AMOUNT OF $25,000 OR GREATER

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
WRCOG WESTERN RIVERSIDE CO. OF GOVTS.	230082	11/21/2016	OCT-2016 TUMF	TUMF FEES COLLECTED FOR 10/1-10/31/16 (RESIDENTIAL & COMMERCIAL)		$212,665.87
Remit to: RIVERSIDE, CA					FYTD:	$2,080,174.29
WRCRCA	230037	11/14/2016	OCT-2016 MSHCP	MSHCP FEES COLLECTED FOR OCT. 2016-RESIDENTIAL & COMMERCIAL		$25,030.80
Remit to: RIVERSIDE, CA					FYTD:	$270,978.80

TOTAL AMOUNTS OF $25,000 OR GREATER **$11,448,939.6**

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CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
452ND AIR MOBILITY WING	229967	11/07/2016	11/19/16 EVENT	MILITARY BALL DINNER TICKET-MAYOR PRO TEM GIBA		$130.00
				MILITARY BALL DINNER TICKET-COUNCIL MEMBER JEMPSON		
		11/07/2016	11-19-16 EVENT	MILITARY BALL DINNER TICKET-COUNCIL MEMBER PRICE		
	230009	11/14/2016	11/19/16EVENT	MILITARY BALL DINNER TICKETS-COUNCIL MEMBER MOLINA		$260.00
		11/14/2016	11-19-2016 EVENT			
Remit to: MARCH ARB, CA					FYTD:	$755.00
ABILITY COUNTS, INC	18855	11/28/2016	ACI112847	LANDSCAPE MAINT-CFD#1-OCT16		$2,065.00
Remit to: CORONA, CA					FYTD:	$12,390.00
ADMINSURE	230060	11/21/2016	9351	WORKERS' COMP CLAIMS ADMINISTRATION-JUN16		$2,175.00
Remit to: DIAMOND BAR, CA					FYTD:	$13,050.00
ADVANCE REFRIGERATION & ICE SYSTEMS, INC	18818	11/21/2016	42020	ICE MACHINE REPAIR-PSB		$325.52
Remit to: RIVERSIDE, CA					FYTD:	$7,843.31
ADVANCED ELECTRIC	229968	11/07/2016	12077	ELECTRICAL REPAIR-REPLACED BREAKERS AT SUNNYMEAD MIDDLE SCHOOL		$430.20
	230010	11/14/2016	12090	ELECTRICAL REPAIRS-SUNNYMEAD PARK		$1,156.60
		11/14/2016	12117	ELECTRICAL REPAIRS-CELEBRATION PARK		
		11/14/2016	12116	ELECTRICAL REPAIRS-LASSELLE SPORTS PARK		
		11/14/2016	12091	ELECTRICAL REPAIRS-VICTORIANO PARK		
		11/14/2016	12089	ELECTRICAL REPAIRS-CRC SIDE AREA		
		11/14/2016	12119	ELECTRICAL REPAIRS-VISTA LOMAS PARK		
		11/14/2016	12092	ELECTRICAL REPAIRS-JFK PARK		
Remit to: RIVERSIDE, CA					FYTD:	$89,217.87

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
AEROTEK, INC.	18819	11/21/2016	OP06670267	TEMPORARY STAFFING-FIRE PREV. (TS-ACP) 9/26-9/30/16 (V. ADAMS)		$797.72
	18856	11/28/2016	OP06731528	TEMPORARY STAFFING-FIRE PREV. (TS-ACP) 10/3-10/28/16 (V. ADAMS)		$2,904.32
Remit to: CHICAGO, IL					FYTD:	$15,415.68
AIR EXCHANGE INC	18721	11/07/2016	39167	PLYMOVENT MAINT & REPAIR-FIRE STATION 2		$864.03
	18857	11/28/2016	39323	PLYMOVENT MAINT & REPAIR-FIRE STATION 6		$769.54
		11/28/2016	39322	PLYMOVENT MAINT & REPAIR-FIRE STATION 91		
Remit to: FAIRFIELD, CA					FYTD:	$2,452.50
AIRWAVE COMMUNICATIONS ENTERPRISES	229969	11/07/2016	2549	800 MHZ RADIOS (20 UNITS)		$9,865.78
Remit to: MORENO VALLEY, CA					FYTD:	$9,865.78
ALDI, INC.	230041	11/14/2016	MVU-7014047-01	PBI SOLAR REBATE INCENTIVE		$17,853.12
Remit to: MORENO VALLEY, CA					FYTD:	$105,167.32
ALLIED 100, LLC	230104	11/28/2016	738822	AED PARTS AND SUPPLIES		$796.46
Remit to: WOODRUFF, WI					FYTD:	$796.46
ALPHA AUTOMATION	18722	11/07/2016	6106	DATA SERVICE FOR FUEL TANKS (JAN-DEC 2016)		$500.00
Remit to: LOS ANGELES, CA					FYTD:	$500.00
ALVISO, JEROME	230042	11/14/2016	R16-100649	ANIMAL SHELTER REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: EASTVALE, CA					FYTD:	$75.00
AMAYA, BRIDGET	18765	11/14/2016	7/4-11/2/16	MILEAGE REIMBURSEMENT		$116.10
Remit to: MORENO VALLEY, CA					FYTD:	$116.10

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
AMERICAN FORENSIC NURSES	18766	11/14/2016	68551	PHLEBOTOMY SERVICES	$780.00
		11/14/2016	68574	PHLEBOTOMY SERVICES	
Remit to: LA QUINTA, CA				FYTD:	$11,015.00
AMERIGAS PROPANE LP	230105	11/28/2016	3056475135	PROPANE FUEL FOR CITY EQUIPMENT	$150.12
Remit to: PASADENA, CA				FYTD:	$1,371.28
AMTECH ELEVATOR SERVICES	230061	11/21/2016	DVB05044716	ELEVATOR ROUTINE MAINT-CITY HALL-JUL16	$2,566.14
		11/21/2016	DVB65746716	WHEELCHAIR LIFT ROUTINE MAINT-SENIOR CTR 7/1-12/31/16	
		11/21/2016	DVB05046716	ELEVATOR ROUTINE MAINT-EOC-JUL16	
		11/21/2016	DVB65903716	WHEELCHAIR LIFT ROUTINE MAINT-CRC 7/1-12/31/16	
		11/21/2016	DVB33837001	OSHA REQUIRED REPAIRS-EOC ELEVATOR	
		11/21/2016	DVB05046916	ELEVATOR ROUTINE MAINT-EOC-SEPT16	
		11/21/2016	DVB05046A16	ELEVATOR ROUTINE MAINT-EOC-OCT16	
		11/21/2016	DVB05046816	ELEVATOR ROUTINE MAINT-EOC-AUG16	
		11/21/2016	DVB05044A16	ELEVATOR ROUTINE MAINT-CITY HALL-OCT16	
		11/21/2016	DVB05044816	ELEVATOR ROUTINE MAINT-CITY HALL-AUG16	
		11/21/2016	101000390889	ELEVATOR ROUTINE MAINT-CITY HALL-JUL16 (ADDL)	
		11/21/2016	101000390885	ELEVATOR ROUTINE MAINT-EOC-JUL16 (ADDL)	
		11/21/2016	DVB05044916	ELEVATOR ROUTINE MAINT-CITY HALL-SEPT16	
Remit to: PASADENA, CA				FYTD:	$3,767.00
ANIMAL EMERGENCY CLINIC, INC.	18820	11/21/2016	146BW	AFTER HOURS EMERGENCY VET SVCS-ANIMAL SHELTER	$175.00
		11/21/2016	146BV	AFTER HOURS EMERGENCY VET SVCS-ANIMAL SHELTER	
Remit to: GRAND TERRACE, CA				FYTD:	$765.00

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
APPLE ONE EMPLOYMENT SERVICES	18723	11/07/2016	01-4248084	TEMPORARY STAFFING-SPECIAL DISTRICTS 10/10-10/14/16 (R. DE LEON)	$813.60
	18821	11/21/2016	01-4255227	TEMPORARY STAFFING-SPECIAL DISTRICTS 10/17-10/21/16 (R. DE LEON)	$650.88
Remit to: GLENDALE, CA				FYTD:	$10,556.46
ARRIAGA-J, LISSETTE	18767	11/14/2016	FALL 2016	TUITION REIMBURSEMENT	$1,680.00
Remit to: RANCHO CUCAMONGA, CA				FYTD:	$1,680.00
ASCE-AMERICAN SOCIETY OF CIVIL ENGINEERS	230062	11/21/2016	1043493250	2017 MEMBERSHIP RENEWAL-MEMBER#250594 L. GONZALES	$295.00
Remit to: BALTIMORE, MD				FYTD:	$295.00
AT&T MOBILITY	230011	11/14/2016	872455379X100616	CELLULAR PHONE SVC-PD MOBILE COMMAND CTR	$98.64
Remit to: CAROL STREAM, IL				FYTD:	$395.04
AUTOMATIC STOREFRONT SVC/E-Z AUTOMATED SYS.	229970	11/07/2016	0029467	SLIDING GLASS DOOR REPAIR-SENIOR CTR	$1,425.52
		11/07/2016	0029486	MANUAL DOOR REPAIR-CONF. & REC. CTR	
		11/07/2016	0029480	SLIDING GLASS DOOR REPAIR-CONF. & REC. CTR	
Remit to: CHINO, CA				FYTD:	$9,913.65
AVILA, MARIA	230122	11/28/2016	1412209	COTTONWOOD GOLF CTR. RENTAL REFUND DEPOSIT	$200.00
Remit to: MORENO VALLEY, CA				FYTD:	$200.00
AYSO	230123	11/28/2016	1411743	CRC RENTAL REFUND DEPOSIT AND BALANCE	$110.00
Remit to: MORENO VALLEY, CA				FYTD:	$110.00

City of Moreno Valley

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CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
BEESON, JANELLE	230124	11/28/2016	R16-101650	ANIMAL SHELTER REFUND-RABIES & SPAY/NEUTER DEPOSITS		$95.00
Remit to: CHULA VISTA, CA					FYTD:	$95.00
BENNETT, ENID	230087	11/21/2016	R16-101531	ANIMAL SHELTER REFUND-SPAY/NEUTER & RABIES DEPOSITS		$95.00
Remit to: MORENO VALLEY, CA					FYTD:	$95.00
BMW MOTORCYCLES OF RIVERSIDE	18768	11/14/2016	6014774	MAINT & REPAIRS-TRAFFIC MOTORCYCLE		$767.54
Remit to: RIVERSIDE, CA					FYTD:	$16,932.02
BOSCO LEGAL SERVICE, INC.	18769	11/14/2016	9/26-10/20/16	LEGAL COURIER SERVICES-INVS. 232800 THRU 234629		$1,367.75
Remit to: RIVERSIDE, CA					FYTD:	$4,951.25

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CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
BOX SPRINGS MUTUAL WATER COMPANY	229971	11/07/2016	1087-1 10/27/16	WATER ASSESSMENT ON VACANT LOT OWNED BY THE HOUSING AUTHORITY		$272.00
		11/07/2016	1088-1 10/27/16	WATER ASSESSMENT ON VACANT LOT OWNED BY THE HOUSING AUTHORITY		
		11/07/2016	1086-1 10/27/16	WATER ASSESSMENT ON VACANT LOT OWNED BY THE HOUSING AUTHORITY		
		11/07/2016	80-4 10/27/16	WATER ASSESSMENT ON VACANT LOT OWNED BY THE HOUSING AUTHORITY		
		11/07/2016	189-13 10/27/16	WATER ASSESSMENT ON VACANT LOT OWNED BY THE HOUSING AUTHORITY		
		11/07/2016	195-5 10/27/16	WATER ASSESSMENT ON VACANT LOT OWNED BY THE HOUSING AUTHORITY		
		11/07/2016	204-9 10/27/16	WATER ASSESSMENT ON VACANT LOT OWNED BY THE HOUSING AUTHORITY		
		11/07/2016	1084-1 10/27/16	WATER ASSESSMENT ON VACANT LOT OWNED BY THE HOUSING AUTHORITY		
		11/07/2016	1085-1 10/27/16	WATER ASSESSMENT ON VACANT LOT OWNED BY THE HOUSING AUTHORITY		
		11/07/2016	45-4 10/27/16	WATER ASSESSMENT ON VACANT LOT OWNED BY THE HOUSING AUTHORITY		
	230012	11/14/2016	721-1 10/27/16	WATER USAGE-ZONE 01 TOWNGATE		$133.13
Remit to: MORENO VALLEY, CA					FYTD:	$2,647.33
BOYER, KIMBERLY	230088	11/21/2016	R16-101480	ANIMAL SHELTER REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: RIVERSIDE, CA					FYTD:	$75.00
BRAUN BLAISING MCLAUGHLIN	230013	11/14/2016	16312	LEGAL SERVICES-MV UTILITY-SEPT16		$2,216.10
Remit to: SACRAMENTO, CA					FYTD:	$17,460.87

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CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
BUCK, DALTON	230043	11/14/2016	R16-102146	ANIMAL SHELTER REFUND-SPAY/NEUTER & RABIES DEPOSITS		$95.00
Remit to: PERRIS, CA					FYTD:	$95.00
BULL, ROBERT	230044	11/14/2016	R16-102480	ANIMAL SHELTER REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: MORENO VALLEY, CA					FYTD:	$75.00
BURGESS, TRACY	230125	11/28/2016	1411440	CANCELLED COURSE		$76.00
Remit to: MORENO VALLEY, CA					FYTD:	$76.00
BURKE, WILLIAMS & SORENSEN, LLP.	18822	11/21/2016	207077	LEGAL REVIEW SVCS. FOR SALES TAX ALLOCATION ISSUES-SEPT16		$238.33
Remit to: LOS ANGELES, CA					FYTD:	$4,532.90
CALIFORNIA DRUG CONSULTANTS, INC.	230102	11/21/2016	PA99-0024	RELEASE GRADING SECURITY CASH DEPOSIT (PM 29970)		$6,224.00
Remit to: MORENO VALLEY, CA					FYTD:	$6,224.00
CALIFORNIA MUNICIPAL STATISTICS, INC. V1	230063	11/21/2016	16101903	ANNUAL DIRECT AND OVERLAPPING DEBT SCHEDULE		$475.00
Remit to: OAKLAND, CA					FYTD:	$475.00
CALIFORNIA WATERSHED ENGINEERING CORP.	18770	11/14/2016	16282	PLAN CHECK SVCS-PWQMP-OCT 2016		$6,355.75
		11/14/2016	16263	PLAN CHECK SVCS-PWQMP-JUL-SEPT 2016		
		11/14/2016	16117	PLAN CHECK SVCS-PWQMP-MAR-APR 2016		
Remit to: FULLERTON, CA					FYTD:	$8,648.25
CARE ANIMAL HOSPITAL	230014	11/14/2016	193511	VET CARE SERVICE-SET K-9 DRE		$168.50
Remit to: TEMECULA, CA					FYTD:	$168.50

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
CHANDLER ASSET MANAGEMENT, INC	18724	11/07/2016	1610MORENOVA	INVESTMENT MANAGEMENT SVCS-OCT16		$4,212.07
Remit to: SAN DIEGO, CA					FYTD:	$21,059.17
CHANNING BETE COMPANY	229972	11/07/2016	53252088	CPR TRAINING MATERIALS & SUPPLIES		$285.48
Remit to: SOUTH DEERFIELD, MA					FYTD:	$285.48
CHARLES ABBOTT ASSOCIATES, INC	18823	11/21/2016	56307	CONSULTING SVCS-NPDES/SWMP-OCT16		$16,710.00
Remit to: MISSION VIEJO, CA					FYTD:	$79,641.00
CHILES, JESSICA	230126	11/28/2016	R16-103502	ANIMAL SHELTER REFUND-RABIES & SPAY/NEUTER DEPOSITS		$95.00
Remit to: COSTA MESA, CA					FYTD:	$95.00
CHUCK GALLEY	230106	11/28/2016	NOV-2016	INSTRUCTOR SERVICES-ELECTRIC GUITAR & BASS INSTRUCTION CLASS		$90.00
Remit to: RIALTO, CA					FYTD:	$210.00
CIVIL SOURCE, INC.	18771	11/14/2016	1041-0632-2	CONSULTANT PLAN CHECK SVCS-JUL THRU AUG 2016		$1,395.00
Remit to: IRVINE, CA					FYTD:	$7,958.62
COGENT COMMUNICATIONS, INC	18858	11/28/2016	1112016	SECONDARY INTERNET CONNECTION 11/1-11/30/16		$1,676.00
Remit to: BALTIMORE, MD					FYTD:	$11,283.22
COLONIAL SUPPLEMENTAL INSURANCE	229973	11/07/2016	7133069-1101525	SUPPLEMENTAL INSURANCE		$5,768.46
Remit to: COLUMBIA, SC					FYTD:	$28,945.40

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CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
COMMUNITY WORKS DESIGN GROUP	18859	11/28/2016	12169	ALESSANDRO MONUMENT - DESIGN CONSULTANT		$127.50
Remit to: RIVERSIDE, CA					FYTD:	$11,438.35
CONTRERAS, SANDRA E.	18860	11/28/2016	11/29-11/30/16	TRAVEL PER DIEM & MILEAGE-TRAINING/CERTIFYING ELIGIBILITY & NEED		$227.22
Remit to: RIVERSIDE, CA					FYTD:	$227.22
CORTEZ, ARMANDO	230090	11/21/2016	FP16-0437	REFUND-FIRE PLAN CHECK & INSPECTION FEES (NOT REQUIRED)		$583.00
Remit to: MORENO VALLEY, CA					FYTD:	$583.00
COSTCO	229974	11/07/2016	23584	MISC. SUPPLIES FOR EMERGENCY OP'S. CTR		$178.61
Remit to: MORENO VALLEY, CA					FYTD:	$3,543.09
COUNTY OF RIVERSIDE	229975	11/07/2016	16-358103	MAP RECORDING FEES		$60.00
	230015	11/14/2016	16-364083	MAP RECORDING FEES		$90.00
	230016	11/14/2016	IT0000000223	TRAFFIC MOTOR RADIO COMMUNICATIONS FOR PD-SEPT16		$2,671.24
	230017	11/14/2016	2141	CERTIFICATION OF REGISTERED VOTERS		$35.00
Remit to: RIVERSIDE, CA					FYTD:	$35,803.35
CRUZ, BELEN	230091	11/21/2016	R16-102486	ANIMAL SHELTER REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: MORENO VALLEY, CA					FYTD:	$75.00
D&D SERVICES DBA D&D DISPOSAL, INC.	230018	11/14/2016	37996	DECEASED ANIMAL REMOVAL SVC-OCT16		$745.00
Remit to: VALENCIA, CA					FYTD:	$3,725.00
DEIGHTON, JODY	230092	11/21/2016	R16-101994	ANIMAL SHELTER REFUND-SPAY/NEUTER & RABIES DEPOSITS		$95.00
Remit to: LOS ANGELES, CA					FYTD:	$95.00

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
DELTA DENTAL OF CALIFORNIA	18726	11/07/2016	BE001889937	EMPLOYEE DENTAL INSURANCE-PPO		$11,276.70
Remit to: SAN FRANCISCO, CA					FYTD:	$54,349.12
DELTACARE USA	18727	11/07/2016	BE001890814	EMPLOYEE DENTAL INSURANCE-HMO		$5,034.58
Remit to: DALLAS, TX					FYTD:	$24,792.73
DENNIS GRUBB & ASSOCIATES, LLC	18826	11/21/2016	1528	PLAN REVIEW SERVICES-SEPT16		$600.00
	18862	11/28/2016	1541	PLAN REVIEW SERVICES-OCT16		$300.00
Remit to: MIRA LOMA, CA					FYTD:	$6,335.00
DIMENSION DATA NORTH AMERICA INC/FORMERLY NEXUS	18728	11/07/2016	461192	CISCO SMARTNET ANNUAL MAINTENANCE RENEWAL		$23,247.37
Remit to: PITTSBURGH, PA					FYTD:	$104,258.41

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
DMS FACILITY SERVICES	18827	11/21/2016	RC-L108332	JANITORIAL SERVICES-RAINBOW RIDGE PORTABLE-NOV16	$20,981.51
		11/21/2016	RC-L108333	JANITORIAL SERVICES-RED MAPLE PORTABLE-NOV16	
		11/21/2016	RC-L108337	JANITORIAL SERVICES-TOWNGATE COMMUNITY CTR-NOV16	
		11/21/2016	RC-L108336	JANITORIAL SERVICES-SUNNYMEAD ELEMENTARY-NOV16	
		11/21/2016	RC-L108330	JANITORIAL SERVICES-MARCH FIELD PARK COMM. CTR-NOV16	
		11/21/2016	RC-L108338	JANITORIAL SERVICES-TRANSP. TRAILER-NOV16	
		11/21/2016	RC-L108339	JANITORIAL SERVICES-COTTONWOOD GOLF CTR-NOV16	
		11/21/2016	RC-L108329	JANITORIAL SERVICES-LIBRARY-NOV16	
		11/21/2016	RC-L108334	JANITORIAL SERVICES-SENIOR CTR-NOV16	
		11/21/2016	RC-L108335	JANITORIAL SERVICES-SUNNYMEAD MIDDLE/THINK-NOV16	
		11/21/2016	RC-L108327	JANITORIAL SERVICES-EMERGENCY OPS. CTR-NOV16	
		11/21/2016	RC-L108326	JANITORIAL SERVICES-CONF. & REC. CTR-NOV16	
		11/21/2016	RC-L108325	JANITORIAL SERVICES-CITY YARD-NOV16	
		11/21/2016	RC-L108343	JANITORIAL SERVICES-CITY YARD/SANTIAGO OFFICE-NOV16	
		11/21/2016	RC-L108322	JANITORIAL SERVICES-ANIMAL SHELTER-NOV16	
		11/21/2016	L42024	SPECIAL CLEANINGS FOR OCT. 2016 EVENT RENTALS-SENIOR CTR	
		11/21/2016	RC-L108324	JANITORIAL SERVICES-CITY HALL-NOV16	
		11/21/2016	RC-L108323	JANITORIAL SERVICES-ANNEX 1-NOV16	

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
DMS FACILITY SERVICES	18863	11/28/2016	L42022	SPECIAL CLEANINGS FOR OCT 20-29 EVENT RENTALS-CONF & REC CTR	$6,313.20
		11/28/2016	L42023	SPECIAL CLEANINGS FOR OCT 2016 EVENT RENTALS-TOWNGATE COMM. CTR	
		11/28/2016	L42021	SPECIAL CLEANINGS FOR OCT 1-14 EVENT RENTALS-CONF & REC CTR	
		11/28/2016	RC-L108100	JANITORIAL SERVICES-EMPLOYMENT RES. CTR-OCT16	
		11/28/2016	L41455	SPECIAL CLEANING OF (113) UPHOLSTERED CHAIRS AT ERC-8/24/16	
		11/28/2016	L42046	SPECIAL CLEANING FOR 9/11 EVENT RENTAL-COTTONWOOD GOLF CTR	
		11/28/2016	RC-L107386	JANITORIAL SERVICES-EMPLOYMENT RES. CTR-JUL16	
		11/28/2016	RC-L107630	JANITORIAL SERVICES-EMPLOYMENT RES. CTR-AUG16	
		11/28/2016	RC-L108328	JANITORIAL SERVICES-EMPLOYMENT RES. CTR-NOV16	
		11/28/2016	RC-L107854	JANITORIAL SERVICES-EMPLOYMENT RES. CTR-SEPT16	
		11/28/2016	L42020	SPECIAL CLEANINGS FOR OCT 2016 EVENT RENTALS-COTTONWOOD GOLF CTR	
Remit to: SOUTH PASADENA, CA				FYTD:	$158,399.11
DRAYTON, TAMI JANOHNE	18864	11/28/2016	NOV-2016	INSTRUCTOR SERVICES-LINE DANCING CLASS	$201.60
Remit to: MORENO VALLEY, CA				FYTD:	$760.08

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
E.R. BLOCK PLUMBING & HEATING, INC.	18729	11/07/2016	121564	BACKFLOW DEVICE TESTINGS-VARIOUS LOCATIONS	$550.00
	18828	11/21/2016	117916	BACKFLOW DEVICE TEST-FIRE STATION 6	$2,367.00
		11/21/2016	122258	REPLACED BACKFLOW DEVICE-ZONE D	
		11/21/2016	122281	BACKFLOW DEVICE TEST-CRC	
		11/21/2016	122257	REPLACED BACKFLOW DEVICE-ZONE D	
	18865	11/28/2016	1221061	BACKFLOW DEVICE TESTS-CFD#1 & CITY PARKS	$375.00
		11/28/2016	122328	BACKFLOW DEVICE TESTS-CFD#1 & CITY PARKS	
Remit to: RIVERSIDE, CA				FYTD:	$32,127.58
EASTERN MUNICIPAL WATER DISTRICT	230064	11/21/2016	OCT-16 11/21/16	WATER CHARGES	$22,174.91
	230107	11/28/2016	NOV-16 11/28/16	WATER CHARGES	$22,782.24
Remit to: LOS ANGELES, CA				FYTD:	$921,954.55
EDGELANE MOBILE HOME PARK	18772	11/14/2016	NOV 2016	UUT REFUNDS	$1.69
Remit to: LOS ANGELES, CA				FYTD:	$10.08
EDGEMONT COMMUNITY SERVICES DISTRICT	230020	11/14/2016	16-09	FY16/17 LIGHTING USER FEES-APN 291-250-005-4 & 291-191-029-4	$646.96
Remit to: RIVERSIDE, CA				FYTD:	$751.96
EMERGENT BATTERY TECHNOLOGIES, INC.	18866	11/28/2016	29518	REPLACEMENT BATTERIES (28) FOR BATTERY BACKUP SYSTEMS	$3,605.04
Remit to: ANAHEIM, CA				FYTD:	$8,616.24
EMPIRE MOWER	230108	11/28/2016	175203	TREE TRIMMING EQUIPMENT REPAIR & PARTS	$132.84
		11/28/2016	175428	TREE TRIMMING EQUIPMENT REPAIR & PARTS	
Remit to: MORENO VALLEY, CA				FYTD:	$842.71

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
EMPLOYMENT DEVELOPMENT DEPARTMENT	18854	11/17/2016	3RD QTR 2016	UNEMPLOYMENT CLAIMS 7/1-9/30/16		$8,537.00
Remit to: SACRAMENTO, CA					FYTD:	$17,613.00
ENCO UTILITY SERVICES MORENO VALLEY LLC	18730	11/07/2016	0402-MF-01935A	SOLAR METER INSTALLATION		$1,422.00
		11/07/2016	0402-MF-01942A	SOLAR METER INSTALLATION		
Remit to: ANAHEIM, CA					FYTD:	$2,684,261.15
ENGAGED PUBLIC	18731	11/07/2016	16-6214	SUBSCRIPTION TO BALANCING ACT WEBSITE		$5,276.00
Remit to: DENVER, CO					FYTD:	$5,276.00
ENVISIO SOLUTIONS INC	230139	11/28/2016	130170	STRATEGIC PLAN IMPLEMENTATION SOFTWARE (1 YR)		$14,600.00
Remit to: SURREY, BC					FYTD:	$14,600.00
ESGIL CORPORATION	18775	11/14/2016	09164791	PLAN CHECK SVCS-BLDG. & SAFETY-SEPT16		$1,243.32
Remit to: SAN DIEGO, CA					FYTD:	$11,464.11
EVANS ENGRAVING & AWARDS	18732	11/07/2016	102416-12	NAMEPLATES/BADGES FOR ARTS COMMISSIONERS		$100.04
		11/07/2016	102016-12	RETIREMENT PLAQUE-ALICE ROD		
	18867	11/28/2016	111016-31	NAMEPLATE/BADGE FOR ARTS COMMISSIONER-FELIPE DELAO		$174.96
		11/28/2016	110916-2	NAMEPLATES/BADGES FOR ARTS COMMISSIONERS		
		11/28/2016	11916-27	NAMEPLATE FOR PARKS STAFF-RUDY RODRIGUEZ		
Remit to: BANNING, CA					FYTD:	$469.40
EYERMAN, MARSHALL	230083	11/21/2016	11/29-12/2/16	TRAVEL PER DIEM-2016 MUNICIPAL FINANCE INSTITUTE-MONTEREY, CA		$259.00
Remit to: CORONADO, CA					FYTD:	$441.36

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
FAST SIGNS	229977	11/07/2016	70-36484	VEHICLE MAGNETICS-CODE		$72.36
Remit to: MORENO VALLEY, CA					FYTD:	$72.36
FIRST CHOICE SERVICES	18777	11/14/2016	593279	WATER PURIF. UNIT RENTAL-CITY YARD		$550.80
		11/14/2016	593281	WATER PURIF. UNIT RENTAL-FIRE STATION 2		
		11/14/2016	593274	WATER PURIF. UNITS RENTAL-ANIMAL SHELTER		
		11/14/2016	591314	WATER PURIF. UNIT RENTAL-FIRE STATION 65		
		11/14/2016	593275	WATER PURIF. UNIT RENTAL-ANNEX 1		
		11/14/2016	593284	WATER PURIF. UNIT RENTAL-FIRE STATION 58		
		11/14/2016	589627	WATER PURIF. UNIT RENTAL-FIRE STATION 65		
		11/14/2016	593283	WATER PURIF. UNIT RENTAL-FIRE STATION 48		
		11/14/2016	593277	WATER PURIF. UNITS RENTAL-CITY HALL/2ND FLOOR		
		11/14/2016	593278	WATER PURIF. UNIT RENTAL-CONFERENCE & REC. CTR.		
		11/14/2016	593287	WATER PURIF. UNIT RENTAL-FIRE STATION 99		
		11/14/2016	593280	WATER PURIF. UNIT RENTAL-EOC		
		11/14/2016	593286	WATER PURIF. UNIT RENTAL-FIRE STATION 91		
		11/14/2016	593276	WATER PURIF. UNITS RENTAL-CITY HALL/1ST FLOOR		
		11/14/2016	593288	WATER PURIF. UNIT RENTAL-LIBRARY		
		11/14/2016	593291	WATER PURIF. UNIT RENTAL-TRANSP. TRAILER		
		11/14/2016	593290	WATER PURIF. UNIT RENTAL-SENIOR CTR		
		11/14/2016	593282	WATER PURIF. UNIT RENTAL-FIRE STATION 6		
		11/14/2016	593289	WATER PURIF. UNIT RENTAL-PUBLIC SAFETY BLDG.		
		11/14/2016	593285	WATER PURIF. UNIT RENTAL-FIRE STATION 65		
Remit to: ONTARIO, CA					FYTD:	$2,536.66
FIRST INDUSTRIAL REALTY TRUST	18733	11/07/2016	2643275	PROPERTY LEASE RENT-NOV16		$531.00
Remit to: PASADENA, CA					FYTD:	$2,708.10

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
FIRSTCARBON SOLUTIONS	18778	11/14/2016	65723	PEER REVIEW FOR EIR FOR INDIAN ST. COMMERCE CTR 8/27-9/30/16		$1,804.00
Remit to: IRVINE, CA					FYTD:	$23,156.06
FORTUNE BUILDERS	230127	11/28/2016	1412214	COTTONWOOD GOLF CTR. RENTAL REFUND DEPOSIT		$200.00
Remit to: SAN DIEGO, CA					FYTD:	$440.00
FRANKLIN, L. C.	18779	11/14/2016	OCT-2016	MILEAGE REIMBURSEMENT		$268.38
Remit to: PERRIS, CA					FYTD:	$741.96
FRONTIER COMMUNICATIONS/FORMERLY VERIZON	18829	11/21/2016	7002Z183-S-16310	BACKBONE COMMUNICATION SERVICE 11/5-12/4/16		$1,955.10
Remit to: ROCHESTER, NY					FYTD:	$9,800.46
FRONTIER COMMUNICATIONS/FORMERLY VERIZON CALIF.	230021	11/14/2016	082109-5/NOV16	PHONE CHARGES FOR ERC 11/4-12/3/16		$614.85
	230065	11/21/2016	3101548661/NOV16	FIOS SERVICES FOR FIRE STATION 99		$117.16
Remit to: CINCINNATI, OH					FYTD:	$3,677.49
FRONTIER COMMUNITIES	230103	11/21/2016	PA03-0106	RELEASE EROSION CONTROL SECURITY DEPOSIT (TR 31618)		$21,188.75
Remit to: RANCHO CUCAMONGA, CA					FYTD:	$21,188.75
FUEL PROS, INC	18734	11/07/2016	27062	MAINT & REPAIRS-FUEL PUMPS #2 & #3 (CITY YARD)		$1,360.01
	18868	11/28/2016	26924	DIESEL FUEL PUMP REPAIR-FIRE STATION 48		$675.00
Remit to: CHINO, CA					FYTD:	$2,222.51

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
G/M BUSINESS INTERIORS, INC.	230066	11/21/2016	0224598-IN	FIRE PREVENTION 2-DRAWER PEDESTAL		$382.91
Remit to: RIVERSIDE, CA					FYTD:	$195,137.79
GFOA-GOVERNMENT FINANCE OFFICERS ASSOC.	230084	11/21/2016	FY15/16 CAFR	CAFR AWARD APPLICATION - JUNE 30, 2016		$580.00
	230085	11/21/2016	FY15/16 PAFR	PAFR AWARD APPLICATION - JUNE 30, 2016		$225.00
Remit to: CHICAGO, IL					FYTD:	$805.00
GIBBS, GIDEN, LOCHER,TURNER, SENET & WITTBRODT LLP	18735	11/07/2016	234504	LEGAL SERVICES-BOND SAFEGUARD (RANCHO VERDE PARK-EMPIRE LLC)		$457.25
	18780	11/14/2016	234947	LEGAL SERVICES-BOND SAFEGUARD (RANCHO VERDE PARK-EMPIRE LLC)		$72.50
Remit to: LOS ANGELES, CA					FYTD:	$529.75
GOOD HOPE BAPTIST CHURCH	230093	11/21/2016	1408454	CRC RENTAL REFUND DEPOSIT		$256.00
Remit to: PERRIS, CA					FYTD:	$256.00
GOZDECKI, DAN	18781	11/14/2016	NOV-2016 YOUTH	INSTRUCTOR SERVICES-KUNG FU CLASS		$313.80
		11/14/2016	NOV-2016 ADULT	INSTRUCTOR SERVICES-KUNG FU CLASS		
Remit to: MORENO VALLEY, CA					FYTD:	$1,950.60
GRAVES & KING, LLP	18782	11/14/2016	1609-0009862-05	LEGAL SERVICES-CLAIM MV1633 (R. WARREN)		$19,436.76
		11/14/2016	1609-0009808-01	LEGAL SERVICES-CLAIM MV1622 (K. CABRERA)		
Remit to: RIVERSIDE, CA					FYTD:	$44,792.67
GROW, MIRANDA	230094	11/21/2016	R16-103294	ANIMAL SHELTER REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: MORENO VALLEY, CA					FYTD:	$75.00

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GUARNETT, MARTHA	230095	11/21/2016	R16-102459	ANIMAL SHELTER REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: MORENO VALLEY, CA					FYTD:	$75.00
GUERRERO, SANDRA	230128	11/28/2016	1411710	CRC RENTAL REFUND DEPOSIT		$750.00
Remit to: MORENO VALLEY, CA					FYTD:	$750.00
GUERRERO, VILMA	230129	11/28/2016	R16-103822,823	ANIMAL SHELTER REFUND-RABIES DEPOSIT & ADOPTION OVERCHARGE		$21.00
Remit to: PERRIS, CA					FYTD:	$21.00
GUINTO, SANDRA	230045	11/14/2016	1409988	REFUND FOR SR CTR RENTAL 307304		$300.00
Remit to: MORENO VALLEY, CA					FYTD:	$300.00
HABITAT RESTORATION SCIENCES, INC	18783	11/14/2016	7703	DETENTION BASIN MAINTENANCE SVC-SEPT16		$1,874.00
Remit to: CARLSBAD, CA					FYTD:	$9,370.00
HALL, CHARMAYNE	229996	11/07/2016	1408013	TOWNGATE COMM. CTR. RENTAL CANCELLATION		$200.00
Remit to: MORENO VALLEY, CA					FYTD:	$200.00
HDL COREN & CONE	230022	11/14/2016	0023338-IN	CONTRACT SVCS-PROPERTY TAX SOFTWARE MAINT (OCT-DEC 2016)		$5,362.50
Remit to: DIAMOND BAR, CA					FYTD:	$11,370.00
HECTOR, ABBY	230046	11/14/2016	R16-102264	ANIMAL SHELTER REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: MORENO VALLEY, CA					FYTD:	$75.00
HEPP, LAUREN	230047	11/14/2016	R16-099748	ANIMAL SHELTER REFUND-RABIES DEPOSIT		$20.00
	230130	11/28/2016	R16-099748	ANIMAL SHELTER REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: TEMECULA, CA					FYTD:	$95.00

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
HIGHLAND FAIRVIEW PROPERTIES, LLC	230048	11/14/2016	PM 33532/PA04-69	REFUND-EROSION CONTROL SECURITY DEPOSIT	$19,300.00
Remit to: MORENO VALLEY, CA				FYTD:	$19,300.00
HILLTOP GEOTECHNICAL, INC.	18784	11/14/2016	15598 R	COTTONWOOD AVE AND EDGEMONT PAVEMENT RESURFACING	$3,372.00
Remit to: SAN BERNARDINO, CA				FYTD:	$23,065.50
HIROU, LUANN	230096	11/21/2016	R16-103141	ANIMAL SHELTER REFUND-SPAY/NEUTER & RABIES DEPOSITS	$95.00
Remit to: SAN CLEMENTE, CA				FYTD:	$95.00
HISPANIC ASSOCIATION OF SMALL BUSINESS	229997	11/07/2016	1408228	CRC RENTAL REFUND DEPOSIT	$500.00
Remit to: PERRIS, CA				FYTD:	$500.00
HLP, INC.	18785	11/14/2016	12608	WEB LICENSE MONTHLY SERVICE FEE	$33.95
Remit to: LITTLETON, CO				FYTD:	$21,694.85
HONDA YAMAHA OF REDLANDS	18786	11/14/2016	86516	MAINT & REPAIRS-TRAFFIC MOTORCYCLE	$219.70
Remit to: REDLANDS, CA				FYTD:	$4,760.49
HYLAND SOFTWARE, INC. (FMRLY SIRE TECHNOLOGIES)	18787	11/14/2016	314809	SIRE SOFTWARE MAINTENANCE 11/1/16-1/31/17	$5,738.33
Remit to: WESTLAKE, OH				FYTD:	$13,109.61
INLAND EMPIRE BUSINESS PUBLICATIONS, LLC	18738	11/07/2016	49	1/2 PAGE ADVERTISEMENT-INLAND EMPIRE BUSINESS REVIEW	$624.00
Remit to: MORENO VALLEY, CA				FYTD:	$3,120.00

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INLAND EMPIRE ECONOMIC PARTNRSHP FOUNDTN	230109	11/28/2016	65205	ANNUAL MEMBERSHIP-PUBLIC PARTNER MEMBER 3/1/16-2/29/17	$7,500.00
Remit to: RANCHO CUCAMONGA, CA				FYTD:	$7,500.00
INLAND OVERHEAD DOOR COMPANY	230067	11/21/2016	40536	AUTO GATES REPAIR-PUBLIC SAFETY BLDG. GATE 4 & 5	$5,290.30
		11/21/2016	40452	ROLL UP DOORS PREVENTIVE MAINT-ANNEX 1	
		11/21/2016	40453	AUTO GATE PREVENTIVE MAINT-ANIMAL SHELTER	
		11/21/2016	40454	AUTO GATES/ROLL UP DOORS PREVENTIVE MAINT-FIRE STATION 58	
		11/21/2016	40455	AUTO GATES/ROLL UP DOORS PREVENTIVE MAINT-FIRE STATION 48	
		11/21/2016	40456	AUTO GATES/ROLL UP DOORS PREVENTIVE MAINT-FIRE STATION 6	
		11/21/2016	40458	AUTO GATES/ROLL UP DOORS PREVENTIVE MAINT-FIRE STATION 91	
		11/21/2016	40460	AUTO GATES/ROLL UP DOORS PREVENTIVE MAINT-PUBLIC SAFETY BLDG.	
		11/21/2016	40451	AUTO GATES/ROLL UP DOORS PREVENTIVE MAINT-FIRE STATION 2	
		11/21/2016	40459	AUTO GATES/ROLL UP DOORS PREVENTIVE MAINT-FIRE STATION 99	
Remit to: COLTON, CA				FYTD:	$11,951.11
IRON MOUNTAIN, INC	18830	11/21/2016	NCZ3853	OFF-SITE STORAGE OF CITY RECORDS-NOV16	$1,996.99
Remit to: PASADENA, CA				FYTD:	$11,469.81
JACK HENRY & ASSOCIATES	230023	11/14/2016	2388321	ONLINE PAYMENT PROCESSING-MVU-SEPT16	$15.00
Remit to: MONETT, MO				FYTD:	$60.00

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
JAMES, KEELEY	230049	11/14/2016	R16-102479	ANIMAL SHELTER REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: MURRIETA, CA					FYTD:	$75.00
JANNEY & JANNEY ATTORNEY SVCS, INC.	230068	11/21/2016	STMT NO. 9793	LEGAL COURIER SERVICES 9/30/16 & 10/28/16		$116.50
Remit to: RIVERSIDE, CA					FYTD:	$2,833.70
JDH CONTRACTING	18831	11/21/2016	111116-01	ROOF RENOVATION-WOODLAND PARK		$11,697.00
Remit to: RIVERSIDE, CA					FYTD:	$179,496.00
KEPLAR, AMBER	229998	11/07/2016	1403988	REFUND FOR CHEERLEADING/POM POM CLASS		$71.00
Remit to: MORENO VALLEY, CA					FYTD:	$71.00
KERN, VERONICA	230097	11/21/2016	FP16-0442	REFUND-FIRE PLAN CHECK & INSPECTION FEES (NOT REQUIRED)		$379.00
Remit to: MORENO VALLEY, CA					FYTD:	$379.00
KRAMER, DENNIS	230098	11/21/2016	R16-102790	ANIMAL SHELTER REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: MORENO VALLEY, CA					FYTD:	$75.00
L.N.CURTIS & SONS	229978	11/07/2016	INV56228	SPECIALIZED EQUIPMENT & SUPPLIES FOR USAR VEHICLE		$13,819.52
	230069	11/21/2016	INV60690	SPECIALIZED EQUIPMENT FOR USAR VEHICLE		$68.74
Remit to: SAN FRANCISCO, CA					FYTD:	$13,888.26
LAFOND, KAITLYN	230050	11/14/2016	R16-102056	ANIMAL SHELTER REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: MORENO VALLEY, CA					FYTD:	$75.00
LANDCARE USA, LLC	18832	11/21/2016	8145940	LANDSCAPE MAINT-ZONES E-7, SD LMD ZN 01, 01A & 08-OCT16		$12,129.60
		11/21/2016	8151203	IRRIGATION REPAIRS-ZONES SD LMD ZN 01, 01A & 08-OCT16		
Remit to: RIVERSIDE, CA					FYTD:	$141,764.77

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
LEAGUE OF CALIFORNIA CITIES-RIV CNTY DIV 1	230110	11/28/2016	2644a	DIVISION MEETING ATTENDANCE ON 10/5/16-LA DONNA JEMPSON		$80.00
		11/28/2016	2644	DIVISION MEETING ATTENDANCE ON 10/5/16-MARSHALL EYERMAN		
Remit to: SACRAMENTO, CA					FYTD:	$320.00
LEE, JERI	18789	11/14/2016	OCT-2016	INSTRUCTOR SERVICES-ADAPTIVE ZUMBA CLASS		$138.60
Remit to: MORENO VALLEY, CA					FYTD:	$138.60
LEE-MCDUFFIE, PRECIOUS	18790	11/14/2016	NOV-2016	INSTRUCTOR SERVICES-ACTING FOR KIDS CLASS		$358.20
Remit to: MORENO VALLEY, CA					FYTD:	$1,830.00
LEVEL 3 COMMUNICATIONS/ FORMERLY TW TELCOM	18739	11/07/2016	47797562a	INTERNET & DATA SERVICES 10/17-11/16/16		$4,659.09
		11/07/2016	47797562	TELEPHONE SVCS-LOCAL/LONG DISTANCE CALLS 10/17-11/16/16		
Remit to: BROOMFIELD, CO					FYTD:	$23,419.49
LEXISNEXIS PRACTICE MGMT.	18791	11/14/2016	1609076731	LEGAL RESEARCH TOOLS-SEPT16		$1,180.00
Remit to: MIAMISBURG, OH					FYTD:	$5,900.00
LIEBERT, CASSIDY, WHITMORE	229979	11/07/2016	11/10/16TRAINING	TRAINING FEES FOR 6 ATTENDEES		$210.00
Remit to: LOS ANGELES, CA					FYTD:	$5,336.00
LOPEZ PARTY RENTALS (MARIA G. LOPEZ)	230038	11/14/2016	11316	BALLOON PILLARS FOR VETERANS DAY EVENT		$150.00
Remit to: RIVERSIDE, CA					FYTD:	$150.00
LOPEZ, BERTHA	229999	11/07/2016	1406419 1406420	REFUND-A CHILD'S PLACE PROGRAM		$74.00
Remit to: MORENO VALLEY, CA					FYTD:	$74.00

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LOPEZ, TERESA	230000	11/07/2016	1404583	REFUND FOR RENTAL AT SR. CTR 30323		$300.00
Remit to: MORENO VALLEY, CA					FYTD:	$300.00
LORA, ELIZABETH	230001	11/07/2016	1407462	REFUND FOR RENTAL SR. CTR. 30323		$300.00
Remit to: MORENO VALLEY, CA					FYTD:	$300.00
LOUCKS, CHRISTOPHER	230039	11/14/2016	10/23-28/16	REIMBURSEMENT-TRAVEL EXPENSES (AIRPORT PARKING & RENTAL CAR)		$285.87
Remit to: MORENO VALLEY, CA					FYTD:	$573.87
LOZANO SMITH, LLP	230070	11/21/2016	2014819	LEGAL SERVICES-SEPT. 2016-RE: WLC PROJECT		$13,955.51
Remit to: FRESNO, CA					FYTD:	$185,998.22
LYONS SECURITY SERVICE, INC	18740	11/07/2016	23418	SECURITY GUARD SVCS-LIBRARY-OCT16		$1,576.71
		11/07/2016	23403	SECURITY GUARD SVCS-MV UTILITIES-OCT16		
	18833	11/21/2016	23411	SECURITY GUARD SVCS-SENIOR CTR SPECIAL EVENTS-OCT16		$9,055.75
		11/21/2016	23410	SECURITY GUARD SVCS-CRC SPECIAL EVENTS-OCT16		
		11/21/2016	23290	SECURITY GUARD SVCS-CONF. & REC. CTR-SEPT16		
		11/21/2016	23420	SECURITY GUARD SVCS-COTTONWOOD GOLF CTR SPECIAL EVENTS-OCT16		
		11/21/2016	23419	SECURITY GUARD SVCS-TOWNGATE COMM. CTR SPECIAL EVENTS-OCT16		
		11/21/2016	23294	SECURITY GUARD SVCS-SENIOR CTR SPECIAL EVENTS-SEPT16		
Remit to: ANAHEIM, CA					FYTD:	$66,492.40

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
MARIPOSA HORTICULTURAL ENTERPRISES, INC.	18792	11/14/2016	74510	LANDSCAPE EXTRA WORK-SEP16-ZONE D/IRRIGATION REPAIR AREA 34	$2,980.74
		11/14/2016	74519	LANDSCAPE EXTRA WORK-SEP16-SD LMD ZN 02/IRRIGATION REPAIR AREA 6	
		11/14/2016	74521	LANDSCAPE EXTRA WORK-SEP16-SD LMD ZN 02/IRRIGATION REPAIR AREA 4	
		11/14/2016	74517	LANDSCAPE EXTRA WORK-SEP16-SD LMD ZN 02/IRRIGATION REPAIR AREA 6	
		11/14/2016	74534	LANDSCAPE EXTRA WORK-SEP16-ZONE D/IRRIGATION REPAIR AREA 89	
		11/14/2016	74516	LANDSCAPE EXTRA WORK-SEP16-ZONE D/IRRIGATION REPAIR AREA 65	
		11/14/2016	74515	LANDSCAPE EXTRA WORK-SEP16-ZONE D/IRRIGATION REPAIR AREA 82	
		11/14/2016	74518	LANDSCAPE EXTRA WORK-SEP16-SD LMD ZN 02/IRRIGATION REPAIR AREA 2	
		11/14/2016	74522	LANDSCAPE EXTRA WORK-SEP16-SD LMD ZN 02/IRRIGATION REPAIR AREA 3	
		11/14/2016	74508	LANDSCAPE EXTRA WORK-SEP16-ZONE D/IRRIGATION REPAIR AREA 34	
		11/14/2016	74520	LANDSCAPE EXTRA WORK-SEP16-SD LMD ZN 02/IRRIGATION REPAIR AREA 3	
		11/14/2016	74507	LANDSCAPE EXTRA WORK-SEP16-ZONE D/IRRIGATION REPAIR AREA 57	
Remit to: IRWINDALE, CA				FYTD:	$213,951.27
MCCAIN TRAFFIC SUPPLY	230071	11/21/2016	INV0213856	TRAFFIC SIGNAL SUPPLIES	$5,994.01
Remit to: VISTA, CA				FYTD:	$5,994.01

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MCKINNEY, BROOKE	18741	11/07/2016	10/24-10/25/16	REIMBURSE LODGING, PARKING & TRANSP. COSTS FOR LAIF CONFERENCE		$277.13
Remit to: RIVERSIDE, CA					FYTD:	$277.13
MCLENDON, KELLIE	230052	11/14/2016	R16-102715	ANIMAL SHELTER REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: MORENO VALLEY, CA					FYTD:	$75.00
MENDOZA, LORENZO	230131	11/28/2016	1411579	REFUND FOR CLASS		$44.60
Remit to: MORENO VALLEY, CA					FYTD:	$44.60
MENGISTU, YESHIALEM	18793	11/14/2016	OCT-2016	MILEAGE REIMBURSEMENT		$186.84
Remit to: MORENO VALLEY, CA					FYTD:	$524.88
MGT OF AMERICA, INC.	18869	11/28/2016	29043	CONSULTING SERVICES-ANNUAL COMPLETION & FILING OF SB 90 CLAIMS		$5,450.00
Remit to: TALLAHASSEE, FL					FYTD:	$5,450.00
MOALLEM, ABBAS	230002	11/07/2016	BL#31754-YR2016	REFUND OF OVERPAYMENT FOR BL#31754		$61.00
Remit to: ANAHEIM, CA					FYTD:	$61.00
MONTGOMERY PLUMBING INC	230111	11/28/2016	110516	HYDROJET WASHING MACHINE LINE/CLEAR FLOOR DRAIN-ANIMAL SHELTER		$650.00
		11/28/2016	110616	INITIAL SERVICE CALL REGARDING MAIN LINE REPAIR AT MFPCC		
Remit to: MORENO VALLEY, CA					FYTD:	$8,050.00
MORENO VALLEY CHAMBER OF COMMERCE	229980	11/07/2016	5443	WAKE-UP MV MEETING ATTENDANCE-9/28/16		$140.00
	230026	11/14/2016	5464	WAKE-UP MV MEETING ATTENDANCE-10/26/16		$160.00
Remit to: MORENO VALLEY, CA					FYTD:	$1,370.00

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MORENO VALLEY COLLEGE	230003	11/07/2016	11/4/16 EVENT	2ND ANNUAL VETERANS SCHOLARSHIP BREAKFAST-COUNCIL MEMBER PRICE		$25.00
	230099	11/21/2016	11/4/16 EVENT	2ND ANNUAL VETERANS SCHOLARSHIP BREAKFAST-COUNCIL MEMBER MOLINA		$25.00
Remit to: MORENO VALLEY, CA					FYTD:	$125.00
MORENO VALLEY MASTER CHORALE	18742	11/07/2016	12/11/16 EVENT	TICKET FOR COUNCIL MEMBER JEMPSON-CAROLS BY CANDLELIGHT CONCERT		$15.00
Remit to: MORENO VALLEY, CA					FYTD:	$5,265.00
MORENO VALLEY UNIFIED SCHOOL DISTRICT	229981	11/07/2016	INV17-00035	JULY 4TH FACILITY USE CUSTODIAN/LIGHTS CHARGES-MT. VIEW & VVHS		$1,503.50
	229982	11/07/2016	161878	BUS TRANSPORTATION FOR A CHILD'S PLACE PROGRAM FIELD TRIPS		$3,030.00
	230112	11/28/2016	INV17-00080	SPONSORSHIP BY L. JEMPSON-VICTORY OUTREACH PERF. FACILITY USE		$739.08
Remit to: MORENO VALLEY, CA					FYTD:	$8,827.58
MORENO VALLEY UTILITY	229983	11/07/2016	7013411-01/OCT16	ELECTRICITY-UTILITY FIELD OFFICE		$184.80
Remit to: HEMET, CA					FYTD:	$446,853.49
MUSIC CHANGING LIVES	18836	11/21/2016	NOV-2016	INSTRUCTOR SERVICES-DRAWING FOR KIDS CLASS		$42.00
Remit to: MORENO VALLEY, CA					FYTD:	$1,180.80
MUSICSTAR	230113	11/28/2016	NOV-2016	INSTRUCTOR SERVICES-PIANO FOR KIDS CLASSES		$432.00
Remit to: RIVERSIDE, CA					FYTD:	$6,843.60
N P G CORPORATION	18870	11/28/2016	1115118	REMOVE & REPLACE 2 WHEEL STOPS IN LIBRARY PARKING LOT		$350.00
Remit to: PERRIS, CA					FYTD:	$350.00

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NATIONWIDE COST RECOVERY SERVICES, LLC	18794	11/14/2016	MV M13-A	CONSULTANT SERVICES-FORECLOSURE REGISTRATION PROGRAM		$15,360.00
Remit to: DIAMOND BAR, CA					FYTD:	$114,880.00
NEW HORIZON MOBILE HOME PARK	18795	11/14/2016	NOV 2016	UUT REFUNDS		$5.27
Remit to: LOS ANGELES, CA					FYTD:	$23.07
NGUYEN, NHO	230132	11/28/2016	R16-103898	ANIMAL SHELTER REFUND-TRAP DEPOSIT		$50.00
Remit to: MORENO VALLEY, CA					FYTD:	$50.00
OLUKOJU, FATIMART	230133	11/28/2016	1410894	SENIOR CENTER RENTAL REFUND DEPOSIT		$300.00
Remit to: MORENO VALLEY, CA					FYTD:	$300.00
PACIFIC ALARM SERVICE, INC	18796	11/14/2016	R 124696	BURGLAR ALARM SYSTEM RENT/SVC/MONITORING-MVU SUBSTATION-NOV16		$244.00
Remit to: BEAUMONT, CA					FYTD:	$1,220.00
PACIFIC LIFT & EQUIPMENT CO, INC	230053	11/14/2016	BL#14555-YR2016	REFUND OF OVERPAYMENT FOR BL#14555		$73.03
Remit to: PASADENA, CA					FYTD:	$73.03
PACIFIC TELEMANAGEMENT SERVICES	18797	11/14/2016	877959	PAY PHONE SERVICES-DEC16		$187.92
Remit to: SAN RAMON, CA					FYTD:	$1,378.08
PAINTING BY ZEB BODE	18871	11/28/2016	11222016	COTTONWOOD GOLF CENTER EXTERIOR LS PAINTING		$4,000.00
Remit to: NORCO, CA					FYTD:	$40,900.00

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PALACIOS, MAGALY	230004	11/07/2016	1408468	TOWNGATE COMM. CTR. RENTAL REFUND DEPOSIT		$200.00
Remit to: MORENO VALLEY, CA					FYTD:	$200.00
PERCEPTIVE ENTERPRISES, INC.	18798	11/14/2016	MVL-25	DBE - CONSULTANT SERVICES		$2,100.00
Remit to: LOS ANGELES, CA					FYTD:	$8,100.00
PERMA	18837	11/21/2016 11/21/2016	MV1703 MV1617	LIABILITY CLAIM PAYMENT-MV1703 BOTKIN LIABILITY CLAIM PAYMENT-MV1617 CUTHERELL		$3,213.72
Remit to: PALM DESERT, CA					FYTD:	$479,578.72
PETTY CASH - FINANCE	230040	11/14/2016	OCT 2016	PETTY CASH FUND REPLENISHMENT		$457.47
Remit to: MORENO VALLEY, CA					FYTD:	$2,273.71
POSITIVE PROMOTIONS	230114	11/28/2016	05597311	COMMUNITY EVENT ITEMS FOR COMMUNITY NOW (WRCOG BEYOND)		$4,195.55
Remit to: NEWARK, NJ					FYTD:	$4,195.55
PRICE, GEORGE E.	18744	11/07/2016	10/7/16 REIMB.	REIMBURSE HOTEL CHARGES FOR LOC CONFERENCE-BILLED TO PERSONAL CC		$479.02
Remit to: MORENO VALLEY, CA					FYTD:	$712.13
PROFESSIONAL COMMUNICATIONS NETWORK PCN	230028	11/14/2016	152410180	LIVE ANSWERING SERVICE FOR ROTATIONAL TOW VEHICLES PROGRAM		$596.06
Remit to: RIVERSIDE, CA					FYTD:	$3,540.93

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PRUDENTIAL OVERALL SUPPLY	18745	11/07/2016	22320387	UNIFORM RENTAL & LAUNDERING SVC.-SECURITY GUARD STAFF	$250.30
		11/07/2016	22324258	UNIFORM RENTAL & LAUNDERING SVC.-SIGNS & STRIPING STAFF	
		11/07/2016	22324259	UNIFORM RENTAL & LAUNDERING SVC.-TRAFFIC SIGNAL MAINT. STAFF	
		11/07/2016	22327725	UNIFORM RENTAL & LAUNDERING SVC.-TRAFFIC SIGNAL MAINT. STAFF	
		11/07/2016	22327724	UNIFORM RENTAL & LAUNDERING SVC.-SIGNS & STRIPING STAFF	
		11/07/2016	22328302	UNIFORM RENTAL & LAUNDERING SVC.-FACILITIES MAINT. STAFF	
		11/07/2016	22320973	UNIFORM RENTAL & LAUNDERING SVC.-FACILITIES MAINT. STAFF	
		11/07/2016	22320391	UNIFORM RENTAL & LAUNDERING SVC.-SIGNS & STRIPING STAFF	
		11/07/2016	22320392	UNIFORM RENTAL & LAUNDERING SVC.-TRAFFIC SIGNAL MAINT. STAFF	
		11/07/2016	22324856	UNIFORM RENTAL & LAUNDERING SVC.-FACILITIES MAINT. STAFF	

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PRUDENTIAL OVERALL SUPPLY	18799	11/14/2016	22327728	UNIFORM RENTAL & LAUNDERING SVC.-ST. SWEEPING STAFF	$347.00
		11/14/2016	22327730	UNIFORM RENTAL & LAUNDERING SVC.-GRAFFITI REMOVAL STAFF	
		11/14/2016	22327732	UNIFORM RENTAL & LAUNDERING SVC.-TREE MAINT. STAFF	
		11/14/2016	22327721	UNIFORM RENTAL & LAUNDERING SVC.-PURCHASING DIV. STAFF	
		11/14/2016	22327723	UNIFORM RENTAL & LAUNDERING SVC.-STREET MAINT. STAFF	
		11/14/2016	22324266	UNIFORM RENTAL & LAUNDERING SVC.-TREE MAINT. STAFF	
		11/14/2016	22320388	UNIFORM RENTAL & LAUNDERING SVC.-PURCHASING DIV. STAFF	
		11/14/2016	22324256	UNIFORM RENTAL & LAUNDERING SVC.-VEHICLE/EQUIPMENT MAINT. STAFF	
		11/14/2016	22324257	UNIFORM RENTAL & LAUNDERING SVC.-STREET MAINT. STAFF	
		11/14/2016	22324262	UNIFORM RENTAL & LAUNDERING SVC.-ST. SWEEPING STAFF	
		11/14/2016	22324263	UNIFORM RENTAL & LAUNDERING SVC.-CONCRETE MAINT. STAFF	
		11/14/2016	22324264	UNIFORM RENTAL & LAUNDERING SVC.-GRAFFITI REMOVAL STAFF	
		11/14/2016	22327722	UNIFORM RENTAL & LAUNDERING SVC.-VEHICLE/EQUIPMENT MAINT. STAFF	
		11/14/2016	22324255	UNIFORM RENTAL & LAUNDERING SVC.-PURCHASING DIV. STAFF	
		11/14/2016	22327729	UNIFORM RENTAL & LAUNDERING SVC.-CONCRETE MAINT. STAFF	

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PRUDENTIAL OVERALL SUPPLY	18838	11/21/2016	22324265	UNIFORM RENTAL & LAUNDERING SVC.-PARKS MAINT. STAFF	$390.20
		11/21/2016	22327726	UNIFORM RENTAL & LAUNDERING SVC.-GOLF COURSE STAFF	
		11/21/2016	22334372	UNIFORM RENTAL & LAUNDERING SVC.-TRAFFIC SIGNAL MAINT. STAFF	
		11/21/2016	22324261	UNIFORM RENTAL & LAUNDERING SVC.-CFD #1 STAFF	
		11/21/2016	22324254	UNIFORM RENTAL & LAUNDERING SVC.-SECURITY GUARD STAFF	
		11/21/2016	22334371	UNIFORM RENTAL & LAUNDERING SVC.-SIGNS & STRIPING STAFF	
		11/21/2016	22306872	UNIFORM RENTAL & LAUNDERING SVC.-FACILITIES MAINT. STAFF	
		11/21/2016	22309759	UNIFORM RENTAL & LAUNDERING SVC.-SECURITY GUARD STAFF	
		11/21/2016	22334367	UNIFORM RENTAL & LAUNDERING SVC.-SECURITY GUARD STAFF	
		11/21/2016	22331774	UNIFORM RENTAL & LAUNDERING SVC.-FACILITIES MAINT. STAFF	
		11/21/2016	22331189	UNIFORM RENTAL & LAUNDERING SVC.-TRAFFIC SIGNAL MAINT. STAFF	
		11/21/2016	22331188	UNIFORM RENTAL & LAUNDERING SVC.-SIGNS & STRIPING STAFF	
		11/21/2016	22331184	UNIFORM RENTAL & LAUNDERING SVC.-SECURITY GUARD STAFF	
		11/21/2016	22327731	UNIFORM RENTAL & LAUNDERING SVC.-PARKS MAINT. STAFF	
		11/21/2016	22327727	UNIFORM RENTAL & LAUNDERING SVC.-CFD #1 STAFF	
		11/21/2016	22327720	UNIFORM RENTAL & LAUNDERING SVC.-SECURITY GUARD STAFF	
		11/21/2016	22324260	UNIFORM RENTAL & LAUNDERING SVC.-GOLF COURSE STAFF	
		11/21/2016	22335171	UNIFORM RENTAL & LAUNDERING SVC.-FACILITIES MAINT. STAFF	

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PRUDENTIAL OVERALL SUPPLY	18872	11/28/2016	22334375	UNIFORM RENTAL & LAUNDERING SVC.-ST. SWEEPING STAFF	$358.48
		11/28/2016	22331193	UNIFORM RENTAL & LAUNDERING SVC.-CONCRETE MAINT. STAFF	
		11/28/2016	22334376	UNIFORM RENTAL & LAUNDERING SVC.-CONCRETE MAINT. STAFF	
		11/28/2016	22331186	UNIFORM RENTAL & LAUNDERING SVC.-VEHICLE/EQUIPMENT MAINT. STAFF	
		11/28/2016	22331187	UNIFORM RENTAL & LAUNDERING SVC.-STREET MAINT. STAFF	
		11/28/2016	22331192	UNIFORM RENTAL & LAUNDERING SVC.-ST. SWEEPING STAFF	
		11/28/2016	22331196	UNIFORM RENTAL & LAUNDERING SVC.-TREE MAINT. STAFF	
		11/28/2016	22334377	UNIFORM RENTAL & LAUNDERING SVC.-GRAFFITI REMOVAL STAFF	
		11/28/2016	22334370	UNIFORM RENTAL & LAUNDERING SVC.-STREET MAINT. STAFF	
		11/28/2016	22334369	UNIFORM RENTAL & LAUNDERING SVC.-VEHICLE/EQUIPMENT MAINT. STAFF	
		11/28/2016	22334379	UNIFORM RENTAL & LAUNDERING SVC.-TREE MAINT. STAFF	
		11/28/2016	22331194	UNIFORM RENTAL & LAUNDERING SVC.-GRAFFITI REMOVAL STAFF	
Remit to: RIVERSIDE, CA				FYTD:	$7,481.91
PUBLIC EMPLOYMENT RELATIONS BOARD	230072	11/21/2016	2016-74	ARBITRATION SERVICE FEE	$50.00
Remit to: SACRAMENTO, CA				FYTD:	$50.00
QUALITY CODE PUBLISHING, LLC	18873	11/28/2016	2016-390	SUPPLEMENT SERVICE TO THE MV MUNICIPAL CODE	$842.33
Remit to: SEATTLE, WA				FYTD:	$3,476.76
RAHMAN, JEFF	230134	11/28/2016	1411723	CRC RENTAL REFUND DEPOSIT	$750.00
Remit to: HEMET, CA				FYTD:	$750.00

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RAMOS, ROBERTO	18839	11/21/2016	NOV-2016	INSTRUCTOR SERVICES-KINDER KARATE, SELF DEFENSE, & TAE KWON DO		$916.30
Remit to: MORENO VALLEY, CA					FYTD:	$6,113.80
RANCHO BELAGO DANCE COMPANY	18800	11/14/2016	OCT-2016	INSTRUCTOR SERVICES-DANCE CLASSES		$120.00
	18840	11/21/2016	NOV-2016	INSTRUCTOR SERVICES-DANCE CLASS		$40.00
Remit to: MORENO VALLEY, CA					FYTD:	$956.00
REPUBLIC MASTER CHEFS TEXTILE RENTAL SERVICE	18746	11/07/2016	11958974	LINENS RENTAL FOR CRC BALLROOM		$222.38
		11/07/2016	11964461	LINENS RENTAL FOR CRC BALLROOM		
		11/07/2016	S581381	LINENS RENTAL FOR CRC SPECIAL EVENTS		
		11/07/2016	11969364	LINENS RENTAL FOR CRC BALLROOM		
	18801	11/14/2016	11974302	LINENS RENTAL FOR CRC BALLROOM		$22.00
	18841	11/21/2016	11978623	LINENS RENTAL FOR CRC BALLROOM		$124.64
		11/21/2016	S586321	LINENS RENTAL FOR CRC SPECIAL EVENTS		
Remit to: LOS ANGELES, CA					FYTD:	$1,288.33
RICHARD, ROLAND	230135	11/28/2016	1412221	TOWNGATE COMM. CTR. RENTAL REFUND DEPOSIT		$175.00
Remit to: MORENO VALLEY, CA					FYTD:	$175.00
RICHARDS, WILLIAM J.	229984	11/07/2016	080716	SPORTS OFFICIATING SERVICES-SOFTBALL		$63.00
Remit to: HEMET, CA					FYTD:	$63.00

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RIGHTWAY SITE SERVICES, INC.	229985	11/07/2016	155201	PORTABLE RESTROOM RENTAL-PSB CAR WASH AREA		$113.90
	230073	11/21/2016	156218	PORTABLE RESTROOM RENTAL-M&O @ CITY YARD		$205.04
	230115	11/28/2016	155811	PORTABLE RESTROOM RENTAL-COTTONWOOD GOLF COURSE		$591.70
		11/28/2016	155812	PORTABLE RESTROOMS RENTAL-EQUESTRIAN CENTER		
		11/28/2016	155813	PORTABLE RESTROOMS RENTAL-MARCH MIDDLE SCHOOL		
Remit to: LAKE ELSINORE, CA					FYTD:	$4,872.14
RIVERA, JESUS	230005	11/07/2016	1403324	REFUND FOR RENTAL 30032 AT SR. CTR.		$300.00
Remit to: MORENO VALLEY, CA					FYTD:	$300.00
RIVERSIDE COUNTY INFORMATION TECHNOLOGY (RCIT)	229986	11/07/2016	IT0000000199	VPN CONNECTION FOR CODE ENFORCEMENT STAFF-SEPT16		$22.75
	230116	11/28/2016	IT0000000275	VPN CONNECTION FOR CODE ENFORCEMENT STAFF-OCT16		$9.10
Remit to: RIVERSIDE, CA					FYTD:	$100.10
RIVERSIDE MEDICAL CLINIC	18874	11/28/2016	204560620 8/8/16	HEALTH INSURANCE CLAIM-RUSSELL HOUGH/EMPLOYEE TREATMENT		$207.00
		11/28/2016	204724800 8/11	HEALTH INSURANCE CLAIM-RUSSELL HOUGH/EMPLOYEE TREATMENT		
Remit to: RIVERSIDE, CA					FYTD:	$7,313.00
RMA GROUP	230074	11/21/2016	53712	RECHE VISTA REALIGNMENT-GEOTECH SERVICES		$4,430.00
Remit to: RANCHO CUCAMONGA, CA					FYTD:	$16,885.00
ROBERT , LINA	230054	11/14/2016	R16-101802	ANIMAL SHELTER REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: MORENO VALLEY, CA					FYTD:	$75.00

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For Period 11/1/2016 through 11/30/2016

Attachment: November 2016 Payment Register (2414 : PAYMENT REGISTER - NOVEMBER 2016)

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
ROSE, KASEY	230055	11/14/2016	R16-103093	ANIMAL SHELTER REFUND-ADOPTION FEES	$50.00
Remit to: PERRIS, CA				FYTD:	$50.00
RSG, INC	18842	11/21/2016	I001879	DOCUMENT REVIEW-HABITAT HOMEBUYER: PINEDA/ALVAREZ	$1,000.00
	18875	11/28/2016	I001814	AFFORDABLE MULTI-FAMILY RENTAL COMPLIANCE MONITORING SVCS-SEPT16	$467.50
Remit to: SANTA ANA, CA				FYTD:	$32,318.74
SALAZAR-BREDIN, THERESA	230056	11/14/2016	R16-103685	ANIMAL SHELTER REFUND-RABIES DEPOSIT	$20.00
Remit to: GLENDORA , CA				FYTD:	$20.00
SAN BERNARDINO & RIVERSIDE CO FIRE EQUIP	18876	11/28/2016	87661	FIRE SPRINKLER FIVE YEAR CERTIFICATION-CONFERENCE & REC. CENTER	$400.00
Remit to: SAN BERNARDINO, CA				FYTD:	$1,870.96
SCHIEFELBEIN, LORI C.	230029	11/14/2016	OCT 2016	CONSULTANT SERVICES-ROTATIONAL TOW SERVICE PROGRAM	$1,210.00
Remit to: BULLHEAD CITY, AZ				FYTD:	$5,788.75
SCHOOL, VALLEY CHRISTIAN	230100	11/21/2016	16210456	REFUND - FALSE ALARM APPEAL	$31.00
Remit to: MORENO VALLEY, CA				FYTD:	$31.00
SECTRAN SECURITY, INC	230117	11/28/2016	16110790	ARMORED TRANSPORT SERVICES-NOV16	$474.75
Remit to: LOS ANGELES, CA				FYTD:	$2,369.25
SECURITY LOCK & KEY	18747	11/07/2016	27771	LOCK RE-KEYING FOR CRC FRONT DESK FURNITURE	$80.00
Remit to: YUCAIPA, CA				FYTD:	$8,536.36
SERRANO, ERIKA	230136	11/28/2016	R16-101603	ANIMAL SHELTER REFUND-RABIES DEPOSIT	$20.00
Remit to: MORENO VALLEY, CA				FYTD:	$20.00

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SHELTON, LISA	230057	11/14/2016	R16-100852	ANIMAL SHELTER REFUND-SPAY/NEUTER & RABIES DEPOSITS		$95.00
Remit to: MORENO VALLEY, CA					FYTD:	$95.00
SIMPSON, NICHOLE	230058	11/14/2016	R16-102308	ANIMAL SHELTER REFUND-SPAY/NEUTER DEPOSIT		$75.00
Remit to: MORENO VALLEY, CA					FYTD:	$75.00
SKECHERS	230059	11/14/2016	MVU-7013669-02	PBI SOLAR REBATE INCENTIVE		$4,070.16
Remit to: MANHATTAN BEACH, CA					FYTD:	$31,303.86
SKY PUBLISHING	18843	11/21/2016	16-6_5	1/2 PAGE ADVERTISEMENT-YOUR VILLA MAGAZINE/ NOV. 17-19 ISSUE		$850.00
Remit to: MORENO VALLEY, CA					FYTD:	$14,289.23
SKY TRAILS MOBILE VILLAGE	18802	11/14/2016	NOV 2016	UUT REFUNDS		$9.91
Remit to: LOS ANGELES, CA					FYTD:	$75.00
SOCAL OFFICE TECHNOLOGIES, INC.	18877	11/28/2016	IN270835	COPY MACHINE BILLABLE CHARGE FOR COLOR COPIES 6/15-9/14/16		$15,668.83
		11/28/2016	IN281807	QUARTERLY COPY MACHINES LEASE 10/1-12/31/16		
		11/28/2016	IN287879	COPY MACHINES BILLABLE CHARGE FOR 7/1-9/30/16		
Remit to: CYPRESS, CA					FYTD:	$31,079.54

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SOCO GROUP, INC	18844	11/21/2016	0330136-IN	FUEL FOR CITY VEHICLES & EQUIPMENT		$19,265.06
		11/21/2016	0327218-IN	FUEL FOR CITY VEHICLES & EQUIPMENT		
		11/21/2016	0326167-IN	FUEL FOR CITY VEHICLES & EQUIPMENT		
		11/21/2016	0324955-IN	FUEL FOR CITY VEHICLES & EQUIPMENT		
		11/21/2016	0331391-IN	FUEL FOR CITY VEHICLES & EQUIPMENT		
		11/21/2016	0329168-IN	FUEL FOR CITY VEHICLES & EQUIPMENT		
		11/21/2016	0323895-IN	FUEL FOR CITY VEHICLES & EQUIPMENT		
		11/21/2016	0327993-IN	FUEL FOR CITY VEHICLES & EQUIPMENT		
Remit to: PERRIS, CA					FYTD:	$101,502.54
SOSA, HUGO	18878	11/28/2016	NOV-2016	INSTRUCTOR SERVICES-TRADITIONAL KARATEDO CLASS		$453.60
Remit to: RANCHO CUCAMONGA, CA					FYTD:	$1,782.00
SOUTH COAST AIR QUALITY MGMT DISTRICT	229987	11/07/2016	3018690	EMISSIONS FEES-EOC FAMILY CARE CENTER GENERATOR		$479.21
		11/07/2016	3015088	ANNUAL RENEWAL FEES-DIESEL GENERATOR AT EOC FAMILY CARE CENTER		
Remit to: DIAMOND BAR, CA					FYTD:	$1,896.15
SOUTHERN CALIFORNIA EDISON 1	229988	11/07/2016	OCT-16 11/7/16	ELECTRICITY CHARGES		$8,461.06
	230031	11/14/2016	7500719070	RELIABILITY SERVICE-DLAP_SCE_SEES_HV-JUL16		$211.93
	230118	11/28/2016	OCT-16 11/28/16	ELECTRICITY CHARGES		$20,335.99
		11/28/2016	NOV-16 11/28/16	ELECTRICITY CHARGES		
Remit to: ROSEMEAD, CA					FYTD:	$1,467,275.09
SOUTHERN CALIFORNIA GAS CO.	230032	11/14/2016	OCT-2016	GAS CHARGES		$4,114.97
Remit to: MONTEREY PARK, CA					FYTD:	$17,031.96

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Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
SPRINT	18748	11/07/2016	634235346-074	CELLULAR PHONE SERVICE-PD SET UNIT		$57.78
Remit to: CAROL STREAM, IL					FYTD:	$319.06
ST. NICK'S	230076	11/21/2016	15097	CIVIC CENTER LIGHTING		$12,250.00
Remit to: LONG BEACH, CA					FYTD:	$12,250.00
STANDARD INSURANCE CO	229990	11/07/2016	161101	SUPPLEMENTAL INSURANCE		$1,161.81
Remit to: PORTLAND, OR					FYTD:	$5,301.29

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STANLEY CONVERGENT SECURITY SOLUTIONS, INC	18749	11/07/2016	13789635	ALARM SYSTEM MONITORING-CY SANTIAGO OFFICE BURGLAR ALARM/JUL-NOV	$9,989.28
		11/07/2016	13869294	ALARM SYSTEM MONITORING-FIRE STATION #99/OCT16	
		11/07/2016	13859034	ALARM SYSTEM MONITORING-EOC/OCT16	
		11/07/2016	13826618	SECURITY SYSTEM SERVICE CALL-ANIMAL SHELTER-ADD USERS/UPGRADE SW	
		11/07/2016	13826671	SECURITY SYSTEM SERVICE CALL-CRC-REPLACED SYSTEM KEYPAD	
		11/07/2016	13628510	ALARM SYSTEM MONITORING-CY SANTIAGO OFFICE FIRE ALARM/JUL-DEC16	
		11/07/2016	13630459	ALARM SYSTEM MONITORING-PUBLIC SAFETY BLDG. FIRE ALARM-JUL16	
		11/07/2016	13793143	ALARM SYSTEM MONITORING-FIRE STATION #99/SEP16	
		11/07/2016	13790791	ALARM SYSTEM MONITORING-FIRE STATION #58/SEP-NOV16	
		11/07/2016	13873188	ALARM SYSTEM MONITORING-TOWNGATE COMMUNITY CTR./OCT-DEC16	
		11/07/2016	13765713	ALARM SYSTEM MONITORING SERVICE-EOC/SEP16	
		11/07/2016	13785072	ALARM SYSTEM MONITORING-ANIMAL SHELTER/SEP-NOV16	
		11/07/2016	13871566	ALARM SYSTEM MONITORING-ANNEX 1 BURGLAR ALARM/OCT-DEC16	
		11/07/2016	13876867	ALARM SYSTEM MONITORING-MARCH FIELD PARK COMM. CENTER/OCT-DEC16	
		11/07/2016	13779286	ALARM SYSTEM MONITORING SERVICE-SENIOR CENTER/SEP-NOV16	
		11/07/2016	13871894	ALARM SYSTEM MONITORING-PUBLIC SAFETY BLDG./OCT-DEC16	
		11/07/2016	13782146	ALARM SYSTEM MONITORING-CITY YARD & TRANSP. TRAILER/SEP-NOV16	
		11/07/2016	13876358	ALARM SYSTEM MONITORING-CONFERENCE & REC. CENTER/OCT-DEC16	
		11/07/2016	13740038	ALARM SYSTEM INSTALLATION AT NEW CITY YARD SANTIAGO OFFICE	

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STANLEY CONVERGENT SECURITY SOLUTIONS, INC	18803	11/14/2016	13624778	ALARM SYSTEM MONITORING-SUNNYMEAD MIDDLE SCHOOL/JUL-SEP16	$672.00
		11/14/2016	13693953	ALARM SYSTEM MONITORING-RED MAPLE/AUG-OCT16	
		11/14/2016	13889257	ALARM SYSTEM MONITORING-SUNNYMEAD MIDDLE SCHOOL/OCT-DEC16	
	18845	11/21/2016	13866415	ALARM SYSTEM MONITORING-SUNNYMEAD & BETHUNE PARKS SNACK BARS/OCT	$1,226.84
		11/21/2016	13592308	ALARM SYSTEM MONITORING-SUNNYMEAD & BETHUNE PARKS SNACK BARS/JUL	
		11/21/2016	13766792	ALARM SYSTEM MONITORING-SUNNYMEAD & BETHUNE PARKS SNACK BARS/SEP	
		11/21/2016	13717807	ALARM SYSTEM MONITORING-LASSELLE SPORTS PARK/AUG-OCT16	
		11/21/2016	13701245	ALARM SYSTEM MONITORING-MORRISON PARK SNACK BAR/AUG-OCT16	
		11/21/2016	13699866	ALARM SYSTEM MONITORING-SUNNYMEAD & BETHUNE PARKS SNACK BARS/AUG	
Remit to: PALATINE, IL				FYTD:	$17,851.52
STATE BOARD OF EQUALIZATION 1	18881	11/25/2016	103116	SALES & USE TAX REPORT 10/1-10/31/16	$1,695.00
Remit to: SACRAMENTO, CA				FYTD:	$14,553.00
STATE OF CALIFORNIA DEPT. OF JUSTICE	229991	11/07/2016	190913	LIVE SCAN FINGERPRINTING APPS FOR PD-SEP 2016	$2,032.00
	230033	11/14/2016	185142 (PCS)	FINGERPRINTING SERVICES-PARKS CONTRACT CLASS RELATED-AUG16	$899.00
		11/14/2016	185142 (HR)	FINGERPRINTING SERVICES-HR/EMPLOYMENT/VOLUNTEERS RELATED-AUG16	
Remit to: SACRAMENTO, CA				FYTD:	$18,087.00

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STATE WATER RESOURCES CONTROL BOARD	230034	11/14/2016	479998	EDGEMONT NEIGHBORHOOD - PERMIT	$200.00
Remit to: SACRAMENTO, CA				FYTD:	$200.00
STILES ANIMAL REMOVAL, INC.	230077	11/21/2016	105705	DECEASED LARGE ANIMAL REMOVAL SERVICES-OCT16	$450.00
Remit to: GUASTI, CA				FYTD:	$750.00
STRADLING, YOCCA, CARLSON & RAUTH	18804	11/14/2016	315035-0002	LEGAL SERVICES-DAY & ALESSANDRO MATTERS-SEP16	$3,684.00
		11/14/2016	315036-0000	LEGAL SERVICES-GENERAL MATTERS-SEP16	
	18846	11/21/2016	316341-0000	LEGAL SERVICES-SUCCESSOR AGENCY GENERAL-OCT16	$1,377.12
		11/21/2016	316332-0031	LEGAL SERVICES-HOUSING AUTHORITY GENERAL-OCT16	
		11/21/2016	315006-0031	LEGAL SERVICES-GENERAL (ALLIES)	
		11/21/2016	315037-0032	LEGAL SERVICES-HOME AGREEMENTS (22889 & 22899 ALLIES)	
Remit to: NEWPORT BEACH, CA				FYTD:	$18,121.54
THE LEW EDWARDS GROUP	229992	11/07/2016	0004	PROFESSIONAL SVCS-RE: FISCAL SUSTAINABILITY-OCT16	$12,250.00
Remit to: OAKLAND, CA				FYTD:	$114,092.91
THE MENTOR NETWORK	230006	11/07/2016	1408471 1408472	TOWNGATE COMM. CTR. RENTAL REFUND DEPOSIT AND BALANCE ON ACCT	$221.00
Remit to: MORENO VALLEY, CA				FYTD:	$421.00
THE SAUCE CREATIVE SERVICES	230078	11/21/2016	1224	WINDOW CLINGS FOR HOLIDAY TREE LIGHTING CEREMONY	$162.00
Remit to: MONROVIA, CA				FYTD:	$162.00
THERMAL COMBUSTION INNOVATORS	230119	11/28/2016	166368	HAZARDOUS MATERIAL PICK-UP SERVICES AT ANIMAL SHELTER-OCT16	$101.73
Remit to: COLTON, CA				FYTD:	$508.33

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THOMAS, MAUISHA	230138	11/28/2016	1412204	TOWNGATE COMM. CTR. RENTAL REFUND DEPOSIT		$200.00
Remit to: MORENO VALLEY, CA					FYTD:	$200.00
THOMPSON COBURN LLP	18805	11/14/2016	3194934	LEGAL SERVICES-MVU-RELIABILITY STANDARD COMPLIANCE-SEP16		$34.95
Remit to: WASHINGTON, DC					FYTD:	$232.01
T-MOBILE	230137	11/28/2016	P16-013	REFUND 50% PLANNING FEES (PROJECT CANCELLED)		$425.00
Remit to: IRVINE, CA					FYTD:	$4,081.00
TRICHE, TARA	18848	11/21/2016	NOV-2016	INSTRUCTOR SERVICES-DANCE CLASSES		$2,397.60
Remit to: MORENO VALLEY, CA					FYTD:	$10,123.20
TRUEPOINT SOLUTIONS, LLC	229993	11/07/2016	16-447	ACP WRITING & SCRIPT DEVELOPMENT SERVICES-AUG16		$23,175.00
	230079	11/21/2016	16-567	ACP WRITING & SCRIPT DEVELOPMENT SERVICES-OCT16		$2,025.00
Remit to: LOOMIS, CA					FYTD:	$25,200.00
TTG ENGINEERS	230035	11/14/2016	110865	CITYWIDE BRIDGE REPAIR MAINT. PROGRAM-DESIGN SERVICES		$4,255.00
		11/14/2016	112431	CITYWIDE BRIDGE REPAIR MAINT. PROGRAM-DESIGN SERVICES		
		11/14/2016	111492	CITYWIDE BRIDGE REPAIR MAINT. PROGRAM-DESIGN SERVICES		
Remit to: PASADENA, CA					FYTD:	$50,538.54
TYRA EDUCATIONAL SERVICES LLC	230007	11/07/2016	1408236	CRC RENTAL REFUND DEPOSIT		$500.00
Remit to: HACIENDA HEIGHTS, CA					FYTD:	$500.00
U.S. POSTAL SERVICE	230086	11/21/2016	WINTER/SPRING'17	PERMIT#153-DEPOSIT FOR POSTAGE TO MAIL RECREATION GUIDES		$10,000.00
Remit to: MORENO VALLEY, CA					FYTD:	$19,885.00

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ULTRASERV AUTOMATED SERVICES, LLC	229994	11/07/2016	3590:043945	COFFEE SERVICE SUPPLIES-ANNEX 1	$801.26
		11/07/2016	3590:043382	COFFEE SERVICE SUPPLIES-CITY HALL/CITY CLERK LOCATION	
		11/07/2016	3590:043136	COFFEE SERVICE SUPPLIES-CONFERENCE & REC. CENTER	
		11/07/2016	3590:043384	COFFEE SERVICE SUPPLIES-CITY HALL/PUBLIC WORKS LOCATION	
		11/07/2016	3590:043941	COFFEE SERVICE SUPPLIES-CITY HALL	
	230080	11/21/2016	3590:044326	COFFEE SERVICE SUPPLIES-CITY YARD	$858.39
		11/21/2016	3590:043943	COFFEE SERVICE SUPPLIES-CONFERENCE & REC. CENTER	
		11/21/2016	3590:044332	COFFEE SERVICE SUPPLIES-CITY HALL/PUBLIC WORKS LOCATION	
		11/21/2016	3590:044328	COFFEE SERVICE SUPPLIES-CONFERENCE & REC. CENTER	
Remit to: COSTA MESA, CA				FYTD:	$9,633.20
UNDERGROUND SERVICE ALERT	18754	11/07/2016	920160458(a)	DIGALERT TICKETS SUBSCRIPTION SERVICE-SEP16	$378.00
		11/07/2016	920160458(c)	DIGALERT TICKETS SUBSCRIPTION SERVICE-SEP16	
		11/07/2016	920160458(d)	DIGALERT TICKETS SUBSCRIPTION SERVICE-SEP16	
		11/07/2016	920160458(b)	DIGALERT TICKETS SUBSCRIPTION SERVICE-SEP16	
	18849	11/21/2016	1020160459(c)	DIGALERT TICKETS SUBSCRIPTION SERVICE-OCT16	$258.00
		11/21/2016	1020160459(b)	DIGALERT TICKETS SUBSCRIPTION SERVICE-OCT16	
		11/21/2016	1020160459(a)	DIGALERT TICKETS SUBSCRIPTION SERVICE-OCT16	
		11/21/2016	1020160459(d)	DIGALERT TICKETS SUBSCRIPTION SERVICE-OCT16	
Remit to: CORONA, CA				FYTD:	$1,482.00
UNION BANK OF CALIFORNIA 1	230120	11/28/2016	1008651	INVESTMENT CUSTODIAL SERVICES-OCT16	$335.67
Remit to: LOS ANGELES, CA				FYTD:	$1,813.35
UNITED ROTARY BRUSH CORP	18755	11/07/2016	292799	STREET SWEEPER BROOM KITS/RECONDITIONING	$1,124.45
		11/07/2016	292690	STREET SWEEPER BROOM KITS/RECONDITIONING	
Remit to: KANSAS CITY, MO				FYTD:	$13,742.46

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UNITED SITE SERVICES OF CA, INC.	18806	11/14/2016	114-4515700	FENCE RENTAL AT ANIMAL SHELTER 9/29-10/26/16	$106.65
	18850	11/21/2016	114-4629482	FENCE RENTAL AT ANIMAL SHELTER 10/27-11/23/16	$106.65
Remit to: PHOENIX, AZ				FYTD:	$1,667.55
USA MOBILITY/ARCH WIRELESS	18807	11/14/2016	Z6218870K	PAGER SERVICE FOR ON-CALL TRAFFIC SIGNAL MAINT. STAFF-NOV16	$4.69
Remit to: SPRINGFIELD, VA				FYTD:	$32.82

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VACATE TERMITE & PEST ELIMINATION COMPANY	18808	11/14/2016	68373	PEST CONTROL SERVICE-CITY HALL	$2,580.00
		11/14/2016	68119	PEST CONTROL SERVICE-SENIOR CENTER	
		11/14/2016	68116	PEST CONTROL SERVICE-LIBRARY	
		11/14/2016	68114	PEST CONTROL SERVICE-FIRE STATION #6	
		11/14/2016	68104	PEST CONTROL SERVICE-TOWNGATE COMMUNITY CENTER	
		11/14/2016	69265	PEST CONTROL SERVICE-FIRE STATION #58	
		11/14/2016	68102	PEST CONTROL SERVICE-FIRE STATION #99	
		11/14/2016	68101	PEST CONTROL SERVICE-FIRE STATION #48	
		11/14/2016	67000	PEST CONTROL SERVICE-CITY YARD	
		11/14/2016	67014	PEST CONTROL SERVICE-TRANSP. TRAILER	
		11/14/2016	68120	PEST CONTROL SERVICE-FIRE STATION #2	
		11/14/2016	68118	PEST CONTROL SERVICE-FIRE STATION #58	
		11/14/2016	68381	PEST CONTROL SERVICE-CITY YARD SANTIAGO OFFICE/INITIAL SERVICE	
		11/14/2016	68387	PEST CONTROL SERVICE-TRANSP. TRAILER	
		11/14/2016	68386	PEST CONTROL SERVICE-MARCH FIELD PARK COMMUNITY CENTER	
		11/14/2016	68384	PEST CONTROL SERVICE-ANIMAL SHELTER	
		11/14/2016	68383	PEST CONTROL SERVICE-ANNEX 1	
		11/14/2016	68115	PEST CONTROL SERVICE-UTILITY FIELD OFFICE	
		11/14/2016	68382	PEST CONTROL SERVICE-FIRE STATION #58	
		11/14/2016	69257	PEST CONTROL SERVICE-EOC	
		11/14/2016	68374	PEST CONTROL SERVICE-EOC	
		11/14/2016	68908	PEST CONTROL SERVICE-FIRE STATION #48	
		11/14/2016	68372	PEST CONTROL SERVICE-CONFERENCE & REC. CENTER	
		11/14/2016	68369	PEST CONTROL SERVICE-CITY YARD	
		11/14/2016	68368	PEST CONTROL SERVICE-COTTONWOOD GOLF CENTER	
		11/14/2016	68367	PEST CONTROL SERVICE-PUBLIC SAFETY BUILDING	

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VACATE TERMITE & PEST ELIMINATION COMPANY		11/14/2016	68121	PEST CONTROL SERVICE-FIRE STATION #91	
		11/14/2016	68909	PEST CONTROL SERVICE-FIRE STATION #99	
		11/14/2016	68911	PEST CONTROL SERVICE-TOWNGATE COMMUNITY CENTER	
		11/14/2016	68103	PEST CONTROL SERVICE-FIRE STATION #65	
		11/14/2016	68922	PEST CONTROL SERVICE-UTILITY FIELD OFFICE	
		11/14/2016	68925	PEST CONTROL SERVICE-FIRE STATION #58	
		11/14/2016	68927	PEST CONTROL SERVICE-FIRE STATION #2	
		11/14/2016	68928	PEST CONTROL SERVICE-FIRE STATION #91	
		11/14/2016	69250	PEST CONTROL SERVICE-PUBLIC SAFETY BUILDING	
		11/14/2016	69256	PEST CONTROL SERVICE-CITY HALL	
		11/14/2016	69255	PEST CONTROL SERVICE-CONFERENCE & REC. CENTER	
		11/14/2016	68910	PEST CONTROL SERVICE-FIRE STATION #65	
		11/14/2016	69264	PEST CONTROL SERVICE-CITY YARD SANTIAGO OFFICE	
		11/14/2016	68923	PEST CONTROL SERVICE-LIBRARY	
		11/14/2016	69266	PEST CONTROL SERVICE-ANNEX 1	
		11/14/2016	69267	PEST CONTROL SERVICE-ANIMAL SHELTER	
		11/14/2016	69269	PEST CONTROL SERVICE-MARCH FIELD PARK COMMUNITY CENTER	
		11/14/2016	69270	PEST CONTROL SERVICE-TRANSP. TRAILER	
		11/14/2016	69252	PEST CONTROL SERVICE-CITY YARD	
		11/14/2016	68926	PEST CONTROL SERVICE-SENIOR CENTER	
		11/14/2016	69251	PEST CONTROL SERVICE-COTTONWOOD GOLF CENTER	
		11/14/2016	68921	PEST CONTROL SERVICE-FIRE STATION #6	

City of Moreno Valley

Payment Register

For Period 11/1/2016 through 11/30/2016

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
VACATE TERMITE & PEST ELIMINATION COMPANY	18879	11/28/2016	68074	RODENT CONTROL SERVICES-COTTONWOOD GOLF COURSE	$2,092.50
		11/28/2016	68371	PEST CONTROL SERVICE-SKATE PARK RESTROOM/SNACK BAR	
		11/28/2016	68370	PEST CONTROL SERVICE-CELEBRATION PARK RESTROOM	
		11/28/2016	68366	RODENT CONTROL SERVICES-MARCH FIELD/SKATE PARK	
		11/28/2016	66637	RODENT CONTROL SERVICES-COTTONWOOD GOLF COURSE	
		11/28/2016	66635	RODENT CONTROL SERVICES-VARIOUS MARCH FIELD LOCATIONS	
		11/28/2016	66634	RODENT CONTROL SERVICES-SUNNYMEAD PARK	
		11/28/2016	68243	RODENT CONTROL SERVICES-CELEBRATION PARK	
		11/28/2016	68241	RODENT CONTROL SERVICES-MORRISON PARK	
		11/28/2016	68079	RODENT CONTROL SERVICES-CONFERENCE & REC. CENTER	
		11/28/2016	68078	RODENT CONTROL SERVICES-EL POTRERO PARK	
		11/28/2016	66638	RODENT CONTROL SERVICES-MORRISON PARK	
		11/28/2016	66639	RODENT CONTROL SERVICES-EQUESTRIAN CENTER	
		11/28/2016	66643	RODENT CONTROL SERVICES-CONFERENCE & REC. CENTER	
		11/28/2016	68376	PEST CONTROL SERVICE-SUNNYMEAD PARK RESTROOM/SNACK BAR	
		11/28/2016	68075	RODENT CONTROL SERVICES-EQUESTRIAN CENTER	
		11/28/2016	68375	PEST CONTROL SERVICE-MORRISON PARK RESTROOM	
		11/28/2016	68076	RODENT CONTROL SERVICES-SHADOW MOUNTAIN PARK	
		11/28/2016	66642	RODENT CONTROL SERVICES-EL POTRERO PARK	
		11/28/2016	68077	RODENT CONTROL SERVICES-EDISON EASEMENT PARK	
		11/28/2016	67001	PEST CONTROL SERVICE-CELEBRATION PARK RESTROOM	
		11/28/2016	67002	PEST CONTROL SERVICE-SKATE PARK RESTROOM/SNACK BAR	
		11/28/2016	67006	PEST CONTROL SERVICE-MORRISON PARK RESTROOM	
		11/28/2016	67007	PEST CONTROL SERVICE-SUNNYMEAD PARK RESTROOM/SNACK BAR	
		11/28/2016	68073	RODENT CONTROL SERVICES-SUNNYMEAD PARK	
		11/28/2016	66640	RODENT CONTROL SERVICES-SHADOW MOUNTAIN PARK	

Attachment: November 2016 Payment Register (2414 : PAYMENT REGISTER - NOVEMBER 2016)

City of Moreno Valley

Payment Register

For Period 11/1/2016 through 11/30/2016

Attachment: November 2016 Payment Register (2414 : PAYMENT REGISTER - NOVEMBER 2016)

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
VACATE TERMITE & PEST ELIMINATION COMPANY		11/28/2016	66641	RODENT CONTROL SERVICES-EDISON EASEMENT PARK	
Remit to: MORENO VALLEY, CA				FYTD:	$10,360.00
VALLEY WIDE TOWING, LLC	18756	11/07/2016	EVIDENCE @ MVPD	EVIDENCE TOWING FOR PD - REF# 00002370	$1,400.00
		11/07/2016	MV132230178 TRK1	EVIDENCE TOWING FOR PD	
		11/07/2016	MV132230178 TRK3	EVIDENCE TOWING FOR PD	
		11/07/2016	MV140150390	EVIDENCE TOWING FOR PD	
		11/07/2016	16-02765	EVIDENCE TOWING FOR PD	
Remit to: MORENO VALLEY, CA				FYTD:	$2,370.00
VASQUEZ & COMPANY LLP	18757	11/07/2016	2160873-IN	AUDIT SVCS-CITY FINANCIAL STMTS. FOR FY15/16-5TH PROGRESS BILLNG	$10,000.00
	18852	11/21/2016	2160874	PROFESSIONAL SERVICES-REVIEW OF FINANCIAL PROCEDURES/PRACTICES	$20,746.25
Remit to: LOS ANGELES, CA				FYTD:	$103,805.00
VERIZON WIRELESS	229995	11/07/2016	9773506807	CELLULAR SERVICE FOR PD TRAFFIC TICKET WRITERS	$99.81
Remit to: DALLAS, TX				FYTD:	$399.78
VICTOR MEDICAL CO	18809	11/14/2016	4047899	ANIMAL MEDICAL SUPPLIES & VACCINES	$3,437.64
		11/14/2016	3919147	ANIMAL MEDICAL SUPPLIES & VACCINES	
		11/14/2016	3942294	ANIMAL MEDICAL SUPPLIES & VACCINES	
Remit to: LAKE FOREST, CA				FYTD:	$14,638.63
VILLALOBOS, KHRYSTYNE	230121	11/28/2016	FALL 2016	TUITION REIMBURSEMENT-2016 CVMA FALL SEMINAR	$180.00
Remit to: SAN BERNARDINO, CA				FYTD:	$180.00

City of Moreno Valley

Payment Register

For Period 11/1/2016 through 11/30/2016

Attachment: November 2016 Payment Register (2414 : PAYMENT REGISTER - NOVEMBER 2016)

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description		Payment Amount
VISION SERVICE PLAN	18758	11/07/2016	161101	EMPLOYEE VISION INSURANCE		$4,203.34
Remit to: SAN FRANCISCO, CA					FYTD:	$20,696.25
VOYAGER FLEET SYSTEM, INC.	18811	11/14/2016	869336602644	FUEL CARD CHARGES-PD TRAFFIC MOTORS		$1,096.24
Remit to: HOUSTON, TX					FYTD:	$19,804.48
VULCAN MATERIALS CO, INC.	18759	11/07/2016	71274237	ASPHALTIC MATERIALS		$1,609.81
		11/07/2016	71270752	ASPHALTIC MATERIALS		
		11/07/2016	71228057	ASPHALTIC MATERIALS		
		11/07/2016	71270753	ASPHALTIC MATERIALS		
		11/07/2016	71282789	ASPHALTIC MATERIALS		
		11/07/2016	71270754	ASPHALTIC MATERIALS		
		11/07/2016	71276618	ASPHALTIC MATERIALS		
		11/07/2016	71276619	ASPHALTIC MATERIALS		
		11/07/2016	71284916	ASPHALTIC MATERIALS		
		11/07/2016	71282788	ASPHALTIC MATERIALS		
		11/07/2016	71278661	ASPHALTIC MATERIALS		
	18880	11/28/2016	71295780	ASPHALTIC MATERIALS		$1,498.23
		11/28/2016	71302586	ASPHALTIC MATERIALS		
		11/28/2016	71298087	ASPHALTIC MATERIALS		
		11/28/2016	71302585	ASPHALTIC MATERIALS		
		11/28/2016	71295781	ASPHALTIC MATERIALS		
		11/28/2016	71293157	ASPHALTIC MATERIALS		
		11/28/2016	71289121	ASPHALTIC MATERIALS		
		11/28/2016	71300010	ASPHALTIC MATERIALS		
Remit to: LOS ANGELES, CA					FYTD:	$35,747.32

City of Moreno Valley

Payment Register

For Period 11/1/2016 through 11/30/2016

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
WALTER'S WHOLESALE ELECTRIC	230036	11/14/2016	S105914026.001	LIGHTS FOR COTTONWOOD GOLF CENTER PROJECT	$3,977.75
Remit to: LONG BEACH, CA				FYTD:	$3,977.75
WELLS FARGO CORPORATE TRUST	18812	11/14/2016	1376948	TRUSTEE SERVICES-2014 REF OF 05 LRB FOR PERIOD 11/20/16-11/19/17	$9,500.00
		11/14/2016	1376556	TRUSTEE SERVICES-2007 RDA TABS FOR PERIOD 11/29/16-11/28/17	
		11/14/2016	1376555	TRUSTEE SERVICES-2007 CFD 87-1 IMP AREA #1 FOR 11/29/16-11/28/17	
		11/14/2016	1376554	TRUSTEE SERVICES-2007 CFD 87-1 FOR PERIOD 11/29/16-11/28/17	
Remit to: MINNEAPOLIS, MN				FYTD:	$4,857,585.31
WESTERN MUNICIPAL WATER DISTRICT	230081	11/21/2016	23821-018258/OC6	WATER CHARGES-MARCH FIELD PARK COMMUNITY CTR.-BLDG. 938	$1,812.23
		11/21/2016	23821-018257/OC6	WATER CHARGES-MARCH FIELD PARK COMMUNITY CTR. LANDSCAPE	
		11/21/2016	24753-018620/OC6	WATER CHARGES-M.A.R.B. BALLFIELDS	
		11/21/2016	23866-018292/OC6	WATER CHARGES-SKATE PARK	
Remit to: ARTESIA, CA				FYTD:	$13,247.54
WHEELER PAVING, INC.	18760	11/07/2016	6065	JFK DR. ST. IMPROVEMENTS-RETENTION	$10,908.60
Remit to: RIVERSIDE, CA				FYTD:	$74,904.27
WILLDAN FINANCIAL SERVICES	18761	11/07/2016	010-32521	ARBITRAGE REBATE SERVICES-2007 CFD #5 9/1/15-9/1/16	$1,250.00
	18853	11/21/2016	01-032761.	GRANT SUPPORT SERVICES 6/20-9/30/16	$4,785.00
Remit to: TEMECULA, CA				FYTD:	$58,180.00

City of Moreno Valley

Payment Register

For Period 11/1/2016 through 11/30/2016

CHECKS UNDER $25,000

Vendor Name	Check/EFT Number	Payment Date	Inv Number	Invoice Description	Payment Amount
XEROX CAPITAL SERVICES, LLC	18815	11/14/2016	086838654	COPIER LEASE FOR PARKS/COMM. SVCS. DEPT.-OCT16	$2,579.35
		11/14/2016	086838653	COPIER LEASE/BILLABLE PRINTS FOR PARKS/COMM. SVCS. DEPT.-OCT16	
		11/14/2016	086838652	COPIER LEASE FOR GRAPHICS-NOV16	
		11/14/2016	086838651	COPIER LEASE/BILLABLE PRINTS FOR GRAPHICS-OCT16	
Remit to: PASADENA, CA				FYTD:	$14,349.01
XEROX FINANCIAL SERVICES LLC	18762	11/07/2016	655136	EDD COLOR COPIER LEASE 10/15-11/14/16	$784.62
Remit to: DALLAS, TX				FYTD:	$4,068.40
ZAVALA, ALEJANDRO	230101	11/21/2016	R16-102117	ANIMAL SHELTER REFUND-RABIES DEPOSIT	$20.00
Remit to: MORENO VALLEY, CA				FYTD:	$20.00

TOTAL CHECKS UNDER $25,000 **$753,760.49**

GRAND TOTAL **$12,202,700.10**

Attachment: November 2016 Payment Register (2414 : PAYMENT REGISTER - NOVEMBER 2016)

Report to City Council

TO:

FROM: Ahmad R. Ansari, P.E., Public Works Director/City Engineer

AGENDA DATE: February 7, 2017

TITLE: PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S TURF REMOVAL REBATE PROGRAM FOR ZONE 03 AND ZONE 04 OF LANDSCAPE MAINTENANCE DISTRICT NO. 2014-02

RECOMMENDED ACTION

Recommendations:

1. Authorize Participation in Eastern Municipal Water District's (EMWD) Turf Removal Program for a Rebate of up to $232,858.00 for the benefit of Zone 03 and Zone 04 of Landscape Maintenance District (LMD) No. 2014-02.

2. Approve the First Amendment to the fiscal year (FY) 2016/17 Independent Contractor Agreement for Landscape Districts – South with Merchants Landscape Services, Inc., 1510 S. Lyon St., Santa Ana, CA, 92705 ("First Amendment") to replace certain turf areas with drought tolerant landscaping and water efficient irrigation (Additional Work) and to reduce the frequency of service in Zone 04.

3. Approve budget adjustments as set forth in the Fiscal Impact section of this report.

4. Authorize the City Manager to execute the First Amendment which includes authorizing the City Manager to execute subsequent amendments or extensions to the Agreement, and the authority to authorize associated purchase orders in accordance with the terms of the Agreement as amended, subject to the approval of the City Attorney and provided sufficient funding appropriations and program approvals have been granted by the City Council, which may include potential contingencies for unanticipated work.

5. Authorize the issuance of a change order for FY 2016/17 from the current not-to-exceed amount of $345,595.60 to a new not-to-exceed amount of $626,083.47, an increase of $280,487.87 for the First Amendment.

SUMMARY

This report recommends approval of the City's participation in EMWD's Turf Removal Rebate program, a First Amendment to the Independent Contractor Agreement for Landscape Districts – South ("First Amendment") with Merchants Landscape Services, Inc. ("Contractor") to complete the turf removal project and adjust the level of service of Zone 04 in Landscape Maintenance District (LMD) No. 2014-02, and corresponding budget adjustments.

EMWD has approved the City's participation in its Turf Removal Rebate Program, subject to satisfactorily meeting the terms of the program. The project includes the removal of certain turf areas in Zone 03 and Zone 04 of LMD No. 2014-02 as specified in Attachment 1. The turf will be replaced with drought tolerant landscaping and water efficient irrigation. After completion of the project, EMWD will rebate the City up to $2 per square foot of turf replaced.

The First Amendment adds the turf removal project costs and adjusts the level of landscape maintenance service provided to Zone 04. The service level adjustment is based on available financial resources after the property owners opposed an increase to their landscape maintenance assessment in June 2016.

Completion of the turf removal project will demonstrate the City's commitment to conserve water, ensure compliance with EMWD's recycled water guidelines, reduce ongoing water expenses, reduce water runoff, and aid in balancing Zone 04's landscape maintenance budget.

DISCUSSION

The City established special districts to fund the maintenance of public landscaping in parkways, medians, and open space to designated developments throughout the community. Property owners within a special district pay a special assessment as part of their annual property tax bill. Revenue received from the assessment funds the cost to provide the landscape maintenance services to each zone within the district. The frequency of landscape maintenance service is based on each zone's financial resources. Revenue collected from the assessment is restricted and can only be used for landscape maintenance services in the zone for which they are collected.

Maintenance of the public landscape is performed by licensed and insured landscape contractors. Contracts are awarded after a competitive Request for Proposal process. The scope of work for the landscape maintenance services is categorized into either Base Work or Additional Work.

Base Work is the regular, routine landscape maintenance service. The

cost for this service is a set monthly amount and is determined based on the frequency of landscape maintenance service. The frequency of service provided is based on each zone's financial resources. At the time the City accepts an area's public landscaping for maintenance, the special assessment is set at a rate sufficient to fund the City's standard frequency of service, Level 1 (4-week rotation). For those zones where costs to maintain the landscaping have increased and the property owners have opposed an increase in their assessment, the frequency of service has been reduced to a level consistent with available funding.

Additional Work is for services above and beyond routine maintenance. It may include additional labor and material costs for irrigation repairs, plant material replacement and other landscape related services. The unit costs for Additional Work services are predetermined and approved as part of the contract. The total cost of these services varies each year based upon the needs of the area and its available funding.

Landscape maintenance services are provided to Zone 03 of LMD No. 2014-02 by the Contractor as part of a separate agreement, the Independent Contractor Agreement for Project No. E-3/11-12.

In June 2016, the property owners in Zone 04 opposed an increase to their special assessment. The Zone has been using reserves to fund maintenance services and needed to increase the assessment to maintain or enhance the current Level 3 service (12-week rotation). Without the increase and the necessary financial resources, the Zone can no longer afford the current frequency of service. Further expenditures are necessary to balance the budget. Staff recommends removing the turf in the medians and certain parkways to reduce the monthly maintenance expenses. Removal of the turf will decrease the ongoing landscape maintenance costs and reduce water expenses. A group of interested property owners ("Stakeholders") have met with staff to discuss the need to decrease expenses to include the decrease in frequency of service and removal of the turf.

Pursuant to the terms of the Agreements, the Contractor provided a proposal to remove approximately 116,429 square feet of turf in the medians and certain parkways (see Attachment 2 for a map). The proposal includes replacing the turf with drought tolerant landscaping (e.g. plants and mulch) and drip line irrigation (the "Project"). The Project will be completed consistent with the California Friendly Landscape guidelines as well as the State's proposed Model Water Efficient Landscape Ordinance. The drip line irrigation will also reduce the amount of water runoff typically associated with the medians. The cost proposed for these services is $291,657.31 and is consistent with the predetermined unit costs in the Agreements. Detail on the Project locations and cost for each area can be found in the table in the Fiscal Impact section of this report.

Turf Removal Grant

In November 2016, the City was contacted by EMWD and invited to participate in a rebate program for those turf areas irrigated with recycled water. The program will

rebate up to $2 for each square foot of turf removed and replaced with drought tolerant landscaping and water efficient irrigation, for a maximum of $250,000, provided it is completed prior to June 30, 2017. Approximately 116,429 square feet of turf has been identified that can be easily included within the project for a rebate up to $232,858. Approximately 5,222 square feet of the Iris Ave. median is shared with Zone 03 and has been included in the Project for landscape design continuity.

First Amendment to the Agreement for Zone 04

The proposed First Amendment increases Additional Work services for the Project and decreases the frequency of service to Level 5 (20-week rotation) for Zone 04, effective April 1, 2017. At the time the Agreement was awarded, the reduction to Level 5 (20-week rotation) was anticipated to become effective January 1, 2017. The property owners in Zone 04 will be provided 30-day notice of the reduction in service, consistent with the City's Policy for Conducting Mail Ballot Proceedings. At the request of the Stakeholders, a neighborhood meeting has been tentatively scheduled for Thursday, March 16, 2017 at 6:00 p.m. in the Council Chamber to discuss the reduction in service levels and the Project.

The Agreement for Zone 03 has sufficient funding in the Additional Work budget and does not require an amendment.

ALTERNATIVES

1. Approve and authorize the recommended actions as presented in this staff report. *By selecting this alternative, the turf in the Zone 04 medians and in certain areas within Zone 03 and Zone 04 of LMD No. 2014-02 will be replaced with drought tolerant landscaping and water efficient irrigation as part of EMWD's Turf Removal Rebate program.*

2. Do not approve or authorize the recommended actions as presented in this staff report. *By selecting this alternative, the turf in the Zone 04 medians and in certain areas within Zone 03 and Zone 04 of LMD No. 2014-02 will not be replaced with drought tolerant landscaping and the City will not be able to meet program requirements for EMWD's Turf Removal Rebate program.*

FISCAL IMPACT

Public landscape maintenance services are funded through annual assessments collected on the property tax bills. The assessments are levied on those properties that receive benefit from the public landscaping. Funds are restricted and can only be used for the services and in the zone for which they are collected.

Participation in EMWD's Turf Removal Rebate Program will have no impact on the General Fund. EMWD will provide reimbursement for the Project up to $232,858 for eligible costs. The rebate has been approved for reimbursement contingent upon completion of the program's requirements (see Attachment 3).

The proposed First Amendment includes a $277,154.63 increase in Additional Work to complete the Project for Zone 04 and a $3,333.24 increase in Base Work for an additional three months of service at Level 3 (12-week rotation) for Zone 04. At the time the Agreement was awarded, the reduction to Level 5 (20-week rotation) was anticipated to become effective January 1, 2017. The effective date for the reduction has been extended to April 1, 2017 to coincide with the Project, to allow notification to the property owners, and to allow for a neighborhood meeting. A summary of the Agreement and its First Amendment is outlined in the table below.

Landscape Districts - South **Agreement Summary* (FY 2016/17)** **First Amendment**				
Agreement			$	345,595.60
Increase in Additional Work (Zone 04's share)	$	277,154.63		
Increase in Base Work	$	3,333.24		
First Amendment			$	280,487.87
Total Agreement as Amended			**$**	**626,083.47**

Breakdown of Base Work and Additional Work				
Base Work				
Agreement	$	223,635.60		
First Amendment	$	3,333.24		
Total Base Work			$	226,968.84
Additional Work				
Agreement	$	121,960.00		
First Amendment	$	277,154.63		
Total Additional Work			$	399,114.63
Total Agreement as Amended			**$**	**626,083.47**

*Agreement includes landscape maintenance services for CSD Zone E-8 and Zone 04, 05, 06, and 07 of Landscape Maintenance District No. 2014-02

The rebate will not cover the full cost of the Project. The FY 2016/17 budget for Zone 03 can absorb its share of the cost. Zone 04's fund balance will cover its share ($54,740.63) of the Project.

2017 EMWD Turf Rebate Summary					
Zone	**Location**	**Turf sq. ft.**	**Potential Rebate**	**Cost**	**Difference**
03	Median on Iris Ave. at Hammet Ct.	5,222	$ 10,444.00	$ 14,502.68	$ 4,058.68
	Zone 03 Total				$ 4,058.68
04	Medians on Moreno Beach Dr./Iris Ave.	82,010	$ 164,020.00	$ 200,475.00	$ 36,455.00
	Parkway behind the sidewalk, on north side of JFK Dr. between Cactus Ave. and Ridge Crest Park	22,027	$ 44,054.00	$ 59,502.91	$ 15,448.91
	Cactus Ave. & JFK Dr. corners	7,170	$ 14,340.00	$ 17,176.72	$ 2,836.72
	Zone 04 Total				$ 54,740.63
Totals		**116,429**	**$ 232,858.00**	**$ 291,657.31**	

The Project was not anticipated as part of the FY 2016/17 budget and requires a budget adjustment. There are sufficient operational reserves in both zones to cover the upfront costs of the Project.

FY 2016/17 Budget Adjustment							
Description	**Fund**	**GL Account No.**	**Project**	**Type**	**Adopted Budget**	**Adjustment**	**Amended Budget**
Maint. & Repair - Building & Ground	5014	5014-70-79-25721-620910	SD LMD ZN 04-MVRE	Exp.	$ 216,404	$ 277,155	$ 493,559
Turf Removal Rebate	5014	5014-70-79-25705-585200	SD LMD ZN 04-MVRE	Rev.	$ -	$ 222,414	$ 222,414
Turf Removal Rebate	5014	5014-70-79-25721-585200	SD LMD ZN 03-MVRW	Rev.	$ -	$ 10,444	$ 10,444
*Rounded to whole numbers for budgetary purposes							

NOTIFICATION

As part of their mail ballot documentation, Zone 04 property owners were advised of the need to reduce the frequency service if the ballot did not pass.

PREPARATION OF STAFF REPORT

Prepared By:
Candace E. Cassel
Special Districts Division Manager

Department Head Approval:
Ahmad Ansari, P.E.
Public Works Director/City Engineer

CITY COUNCIL GOALS

Revenue Diversification and Preservation. Develop a variety of City revenue sources and policies to create a stable revenue base and fiscal policies to support essential City services, regardless of economic climate.

Community Image, Neighborhood Pride and Cleanliness. Promote a sense of community pride and foster an excellent image about our City by developing and executing programs which will result in quality development, enhanced neighborhood preservation efforts, including home rehabilitation and neighborhood restoration.

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

Objective 5.2: Promote the installation and maintenance of cost effective, low maintenance landscape, hardscape and other improvements which create a clean, inviting community.

ATTACHMENTS

1. First Amendment to the Agreement for Landscape Districts - South
2. Map - EMWD Turf Removal Rebate Locations
3. EMWD Rebate Approval
4. FY 2016/17 Agreement for Landscape Districts - South

APPROVALS

Budget Officer Approval	✓ Approved	1/24/17 1:55 PM
City Attorney Approval	✓ Approved	1/25/17 9:39 AM
City Manager Approval	✓ Approved	1/26/17 9:19 AM

Attachment: First Amendment to the Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER

FIRST AMENDMENT TO THE INDEPENDENT CONTRACTOR AGREEMENT CITY OF MORENO VALLEY MAINTENANCE OF PARKWAY AND MEDIAN LANDSCAPE AND IRRIGATION LANDSCAPE DISTRICTS – SOUTH

RFP NO. 2016-009

This First Amendment to the Agreement by and between the CITY OF MORENO VALLEY, a municipal corporation, hereinafter referred to as "City" and Merchants Landscape Services, Inc., hereinafter referred to as "Contractor" is made and entered into effective on the date the City Manager signs this Amendment.

RECITALS:

WHEREAS, the City and Contractor entered into an Agreement entitled "INDEPENDENT CONTRACTOR AGREEMENT" for RFP NO. 2016-009 MAINTENANCE OF PARKWAY AND MEDIAN LANDSCAPING AND IRRIGATION for LANDSCAPE DISTRICTS - SOUTH ("Agreement") for fiscal year (FY) 2016/17, dated August 9, 2016 at a total compensation amount of $345,595.60 ($223,635.60 for Base Work and $121,960.00 for Additional Work); and,

WHEREAS, the Contractor is providing maintenance of parkway and median landscape and irrigation; and,

WHEREAS, it is desirable to amend the Agreement to expand the scope of the work to be performed by the Contractor as is more particularly described in Section 1 of this First Amendment.

WHEREAS, the Contractor has submitted Proposals for expansion of the scope of work to be performed consistent with, or below, the predetermined unit costs in the Agreement. A copy of said Proposals is attached as “Exhibit A-First Amendment” and is incorporated herein by this reference.

Attachment: First Amendment to the Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER

SECTION 1. AMENDMENT TO ORIGINAL AGREEMENT:

1.1 The Agreement termination date of June 30, 2017 is not extended by this Amendment, unless the termination date is further extended by a subsequent Amendment to the Agreement.

1.2 Exhibit "A" to the Agreement is hereby amended by adding to the scope of work section described in "Exhibit A – First Amendment," entitled Turf Removal Project (Additional Work) and to extend the provision of Level 3 service (Base Work) for Zone 04 of Landscape Maintenance District (LMD) No. 2014-02 for an additional three months, through March 31, 2017, after which it will transition to service Level 5.

1.3 Exhibit "C" to the Agreement is hereby further amended by adding to the cost proposal section thereof described in "Exhibit A – First Amendment," entitled Turf Removal Project and by $3,333.24 for an additional three months of Level 3 service in Zone 04 of LMD No. 2014-02.

1.4 The City agrees to pay the Contractor and the Contractor agrees to receive a "Not-to-Exceed" fee of $277,154.63, as set forth in the above-referenced Cost Summary, in consideration of the Contractor's performance of the work set forth in "Exhibit A – First Amendment" (Additional Work) and a "Not-to-Exceed" fee of $3,333.24, as set forth in the above-referenced Cost Summary, in consideration of the Contractor's provision of an additional three months of Level 3 service (Base Work) in Zone 04 of LMD No. 2014-02.

1.5 The total "Not-to-Exceed" fee for this contract is $626,083.47 ($345,595.60 for the original Agreement plus $280,487.87 for the First Amendment to Agreement).

SECTION 2:

2.1 Except as otherwise specifically provided in this First Amendment, all other terms and conditions of the Agreement shall remain in full force and effect.

SIGNATURE PAGE TO FOLLOW

IN WITNESS HEREOF, the parties have each caused their authorized representative to execute this Agreement.

City	Contractor
Moreno Valley Community Services District	Merchants Landscape Services, Inc.,
By: _____	By: _____
Title: City Manager, Acting in the capacity of District Manager to the Moreno Valley Community Services District	Title: (President or Vice President)
Date: _____	Date: _____

[redacted]

By: _____
Title: Corporate Secretary or Assistant Secretary

Date: _____

Affix Corporate Seal Below

Attachment: First Amendment to the Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER

Exhibit A.1 – First Amendment
Turf Removal Project

merchants
landscape services, inc.

September 29, 2016

City of Moreno Valley
14331 Frederick Street Ste#2
Moreno Valley, CA 92552

RE: Moreno Valley (Zone 04)

Merchants Landscape Services is pleased to submit the following proposal to perform additional work at Moreno Valley (Zone 4). The following proposal includes equipment, labor and supervision.

DESCRIPTION

The following proposal is for the removal and installation of the new plant material at the above reference location as follows:

• Spray Tech to burn grass 32 hours @ $35.00 per hr	$ 1,120.00
• Sod removal 82,010 sq. ft. @ $0.70 per sq. ft.	$ 57,407.00
• Apply 500 yards of Mulch @ $25.00 per yard	$ 12,500.00
• Install 6,872 (1) gallon shrubs @ $9.00 each	$ 61,848.00
• Install new drip system valve (52 valves), pressure regulator, valve boxes, Netafim tech line, fittings and labor to perform job	$ 67,600.00

Grand Total $200,475.00

Proposal Accepted:_____Date:_____
Signature

_____
Print Name

_____ Start Date:_____
Title

Should you have any questions regarding this proposal, please do not hesitate to contact us.

Sincerely,

Osvaldo Patino
Area Supervisor

8847 W. 9th Street, Rancho Cucamonga, CA 91730 Office 909/981-1022 Fax 909/981-1029

Attachment: First Amendment to the Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER

Exhibit A.2 – First Amendment
Turf Removal Project

merchants
landscape services, inc.

January 11, 2017

City of Moreno Valley
Daniel Monto
14331 Frederick Street Ste#2
Moreno Valley, CA 92552

RE: Zone 04 – JFK Parkway

Merchants Landscape Services is pleased to submit the following proposal to perform additional work at Moreno Valley (Zone 4). The following proposal includes equipment, labor and supervision.

DESCRIPTION

• Sod removal 22,027 sq. ft. @ $0.70 per sq. ft.	$15,418.90
• Install 68 yards of Mulch @25.00 per yard	$ 1,700.00
• Install new drip system valve, pressure regulator,valve boxes, Netafim tech line, fittings and labor to perform job	$ 20,775.01
• Install 2,401 – 1 gal shrubs @$9.00 each	$21,609.00

Grand Total $59,502.91

Proposal Accepted:_____Date:_____
Signature

_____
Print Name

_____ Start Date:_____
Title

Should you have any questions regarding this proposal, please do not hesitate to contact us.

Sincerely,

Osvaldo Patino
Area Supervisor

8847 W. 9th Street, Rancho Cucamonga, CA 91730 Office 909/981-1022 Fax 909/981-1029

Attachment: First Amendment to the Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER

Exhibit A.3 – First Amendment
Turf Removal Project

merchants
landscape services, inc.

January 11, 2017

City of Moreno Valley
Daniel Monto
14331 Frederick Street Ste#2
Moreno Valley, CA 92552

RE: Zone 04 – Cactus & JFK corners

Merchants Landscape Services is pleased to submit the following proposal to perform additional work at Moreno Valley (Zone 4). The following proposal includes equipment, labor and supervision.

DESCRIPTION

• Sod removal 7,170 sq. ft. @ $0.70 per sq. ft.	$ 5,019.00
• Install 22 yards of Mulch @ $25.00 per yard	$ 550.00
• Install new drip system valve, pressure regulator,valve boxes, Netafim tech line, fittings and labor to perform job	$ 4,785.72
• Install 758 – 1 gal shrubs @$9.00 each	$ 6,822.00

Grand Total $17,176.72

Proposal Accepted:_____Date:_____
Signature

_____
Print Name

_____ Start Date:_____
Title

Should you have any questions regarding this proposal, please do not hesitate to contact us.

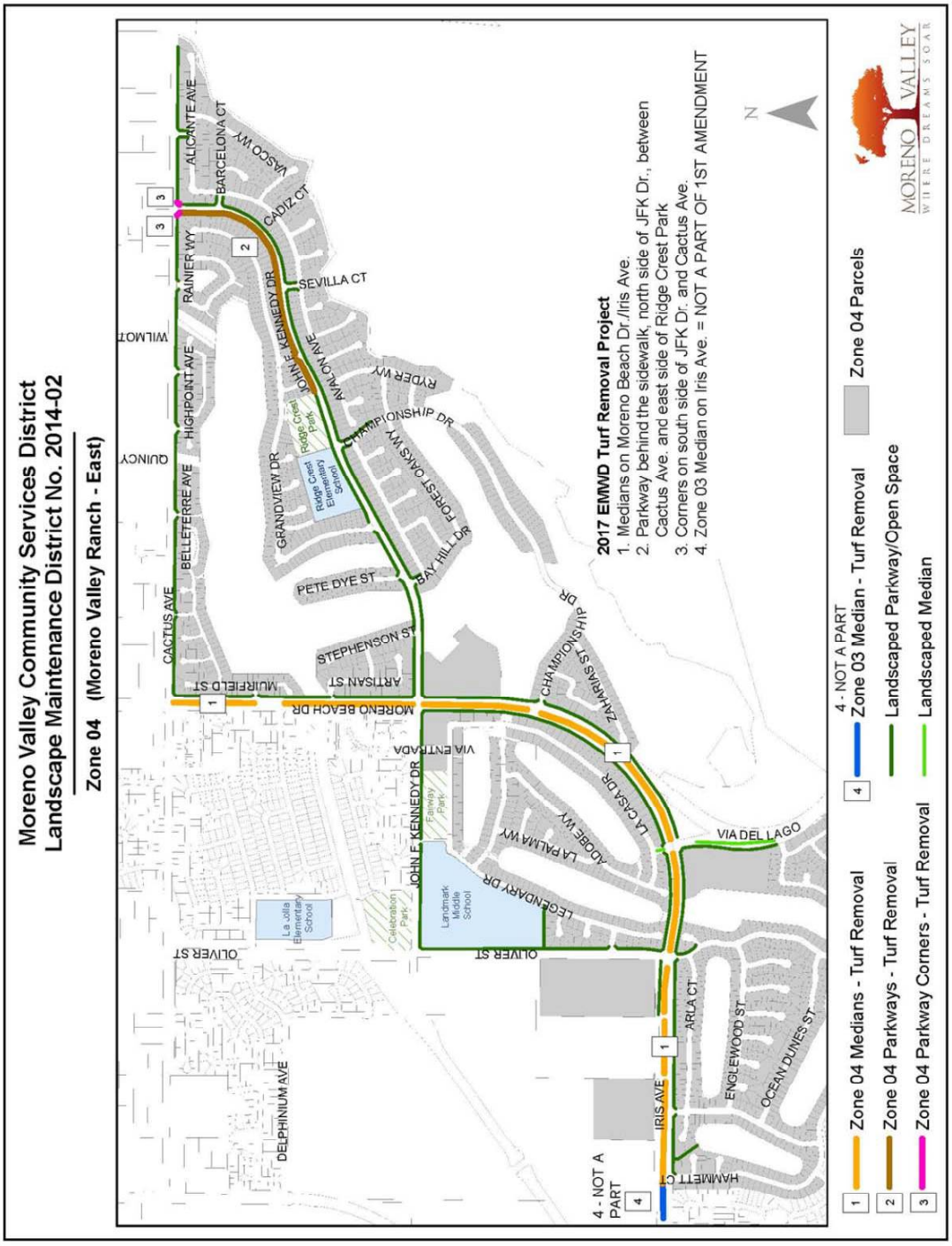
Sincerely,

Osvaldo Patino
Area Supervisor

8847 W. 9th Street, Rancho Cucamonga, CA 91730 Office 909/981-1022 Fax 909/981-1029

Attachment: First Amendment to the Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER

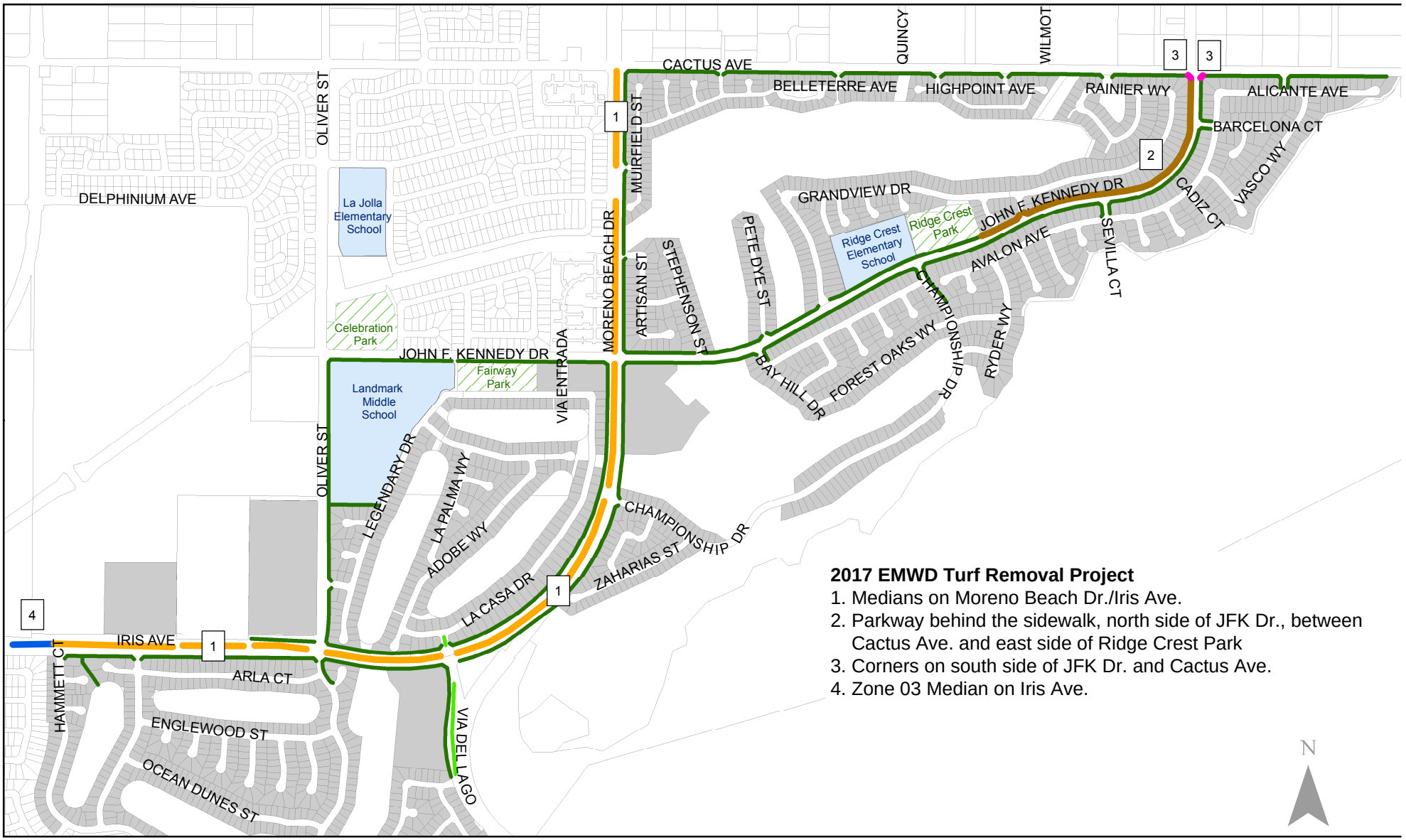
Exhibit A.4 – First Amendment
Turf Removal Project



Attachment: First Amendment to the Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER

Moreno Valley Community Services District
Landscape Maintenance District No. 2014-02

Zone 04 (Moreno Valley Ranch - East)



2017 EMWD Turf Removal Project

1. Medians on Moreno Beach Dr./Iris Ave.
2. Parkway behind the sidewalk, north side of JFK Dr., between Cactus Ave. and east side of Ridge Crest Park
3. Corners on south side of JFK Dr. and Cactus Ave.
4. Zone 03 Median on Iris Ave.

1 Zone 04 Medians - Turf Removal

2 Zone 04 Parkways - Turf Removal

3 Zone 04 Parkway Corners - Turf Removal

4 Zone 03 Median - Turf Removal

Landscaped Parkway/Open Space

Landscaped Median

Zone 04 Parcels

MORENO VALLEY WHERE

Attachment: Map - EMWD Turf Removal Rebate Locations (2386 : PARTICIPATION IN EASTERN

EASTERN MUNICIPAL WATER DISTRICT

November 16, 2016

Dan Monto
Landscape Services Supervisor
Public Works
City of Moreno Valley

Subject: Turf Removal Rebates

Dear Dan:

I am pleased to inform you that EMWD is able to fund/rebate your turf removal project of 87,232 square feet at $2 per square foot for a total of $174,464.00.
Our Grant has a cap of $250,000.00 per City, which in turn leaves the amount of $75,536.00 towards your next project if you decide to complete it also.
Please submit 2-4 before pictures of the area and a map of the site showing the area where turf removal will be done. Once the project is completed, submit 2-4 after pictures and copies of invoices showing the total cost of project.
All projects must be completed by June 30, 2017 in order to receive funding.
Please contact me with any questions.

Sincerely,

Juan Zamora
Conservation Programs Specialist III
(951)928-3777 x-4384
zamoraj@emwd.org

Board of Directors
Randy A. Record, *President* David J. Slawson, *Vice President* Joseph J. Kuebler, CPA, *Treasurer* Philip E. Paule Ronald W. Sullivan

INDEPENDENT CONTRACTOR AGREEMENT
RFP NO. 2016-009
LANDSCAPE DISTRICTS - SOUTH

MAINTENANCE OF PARKWAY AND MEDIAN
LANDSCAPING AND IRRIGATION

This Agreement, herein referred to as "Agreement" or "Contract" is made by and between the City of Moreno Valley, a California municipal corporation and/or the Moreno Valley Community Services District, a Community Services District established pursuant to Section 61000 and following of the California Government Code, with its principal place of business at 14177 Frederick Street, Moreno Valley, CA 92552 hereinafter referred to as "City" and Merchants Landscape Services, Inc., a corporation, with its principal place of business at 1510 South Lyon Street, Santa Ana, California, 92705, hereinafter referred to as the "Contractor," based upon City policies and the following legal citations:

RECITALS

A. Government Code Section 53060 authorizes the engagement of persons to perform special services as independent contractors; and

B. Contractor desires to perform and assume responsibility for the provision of professional landscape and irrigation maintenance contracting services required by the City based upon on the term and conditions set forth in this Agreement. Contractor represents that it is experienced in providing professional landscape and irrigation maintenance contracting services and is licensed in the State of California; if applicable;

C. The City desires to engage Contractor to render such services for landscape and irrigation maintenance as set forth in this agreement;

D. The public interest, convenience, necessity and general welfare will be served by this Agreement; and

E. This Agreement is made and entered into effective the date the City signs this Agreement.

1. CONTRACTOR INFORMATION:

Contractor's Name	Merchants Landscape Services, Inc.
Street Address	1510 South Lyon Street
Street Address	
City, State, Zip	Santa Ana, CA 92705
Mailing Address (If same as Street Address, write same or same as above)	Same as above
Business Phone (with area code)	800-645-4881
Cell or Mobile Phone (with area code)	
Other Contact Number (with area code)	
Fax Number	
Email Address	patrick@merchantslandscape.com
Social Security Number	
Business License Number	
Federal Tax ID Number	95-4725606
Contractor's License Number & Classification	765658 C27

2. CONTRACTOR SERVICES, FEES, AND RELEVANT DATES:

A. The Contractor's scope of service is described in Exhibit "A" attached hereto and incorporated herein by this reference.

B. The City's responsibilities, other than payment, are described in Exhibit "B" attached hereto and incorporated herein by this reference.

C. Payment terms are provided in Exhibit "C" attached hereto and incorporated herein by this reference.

D. The term of this Agreement shall be from July 1, 2016 to June 30, 2017 unless terminated earlier as provided herein. The City acknowledges that it will not unreasonably withhold approval of the Contractor's requests for extensions of time in which to complete the work required. The Contractor shall not be responsible for performance delays caused by others or delays beyond the Contractor's reasonable control (excluding delays caused by non-performance or unjustified delay by Contractor, his/her/its employees, or subcontractors), and such delays shall extend the time for performance of the work by the Contractor.

E. Contractor's Proposal, including but not limited to the Proposal Schedule, Additional Work Price List, Contract Proposal, Proposed Project Work Schedules, Proposed Annual Material Schedule, Contractor Information, Certification of Non-Discrimination, and List of Subcontractors, are described in Exhibit "E" attached hereto and incorporated by this reference.

3. STANDARD TERMS AND CONDITIONS:

A. Control of Work. Contractor is solely responsible for the content and sequence of the work, and will not be subject to control and direction as to the details and means for accomplishing the anticipated results of services. The City will not provide any training to Contractor or his/her/its employees.

B. Intent of Parties. Contractor is, and at all times shall be, an independent contractor and nothing contained herein shall be construed as making the Contractor or any individual whose compensation for services is paid by the Contractor, an agent or employee of the City, or authorizing the Contractor to create or assume any obligation or liability for or on behalf of the City, or entitling the Contractor to any right, benefit, or privilege applicable to any officer or employee of the City.

C. Subcontracting. Contractor may retain or subcontract for the services of other necessary contractors with the prior written approval of the City. Payment for such services shall be the responsibility of the Contractor. Any and all subcontractors shall be subject to the terms and conditions of this Agreement, with the exception that the City shall have no obligation to pay for any subcontractor services rendered. Contractor shall be responsible for paying prevailing wages where required by law [See California Labor Code Sections 1770 through 1777.7].

D. Conformance to Applicable Requirements. All work prepared by Contractor shall be subject to the approval of City.

E. Substitution of Key Personnel. Contractor has represented to City that certain key personnel will perform and coordinate the services under this Agreement. Should one or more of such personnel become unavailable, Contractor may substitute other personnel of at least equal competence upon written approval of City. In the event that City and Contractor cannot agree as to the substitution of key personnel, City shall be entitled to terminate this Agreement for cause. As discussed below, any personnel who fail or refuse to perform the services in a manner acceptable to the City, or who are determined by the City to be uncooperative, incompetent, a threat to the adequate or timely completion of the project or a threat to the safety of persons or property, shall be promptly removed from the project by the Contractor at the request of the City. The key personnel for performance of this Agreement are as follows: Patrick Healy.

F. City's Representative. The City hereby designates the City Manager, or his or her designee, to act as its representative for the performance of this Agreement ("City's Representative"). Contractor shall not accept direction or orders from any person other than the City's Representative or his or her designee.

G. Contractor's Representative. Contractor hereby designates Patrick Healy, or his or her designee, to act as its representative for the performance of this Agreement ("Contractor's Representative"). Contractor's Representative shall have full authority to represent and act on behalf of the Contractor for all purposes under this Agreement. The Contractor's Representative shall supervise and direct the

services, using his or her best skill and attention, and shall be responsible for all means, methods, techniques, sequences and procedures and for the satisfactory coordination of all portions of the services under this Agreement.

H. Legal Considerations. The Contractor shall comply with applicable federal, state, and local laws in the performance of this Agreement. Contractor shall be liable for all violations of such laws and regulations in connection with services. If the Contractor performs any work knowing it to be contrary to such laws, rules and regulations and without giving written notice to the City, Contractor shall be solely responsible for all costs arising therefrom. Contractor shall defend, indemnify and hold City, its officials, directors, officers, employees and agents free and harmless, pursuant to the indemnification provisions of this Agreement, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

I. Standard of Care; Performance of Employees. Contractor shall perform all services under this Agreement in a skillful and competent manner, consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California. Contractor represents and maintains that it is skilled in the profession necessary to perform the services. Contractor warrants that all employees and subcontractor shall have sufficient skill and experience to perform the services assigned to them. Finally, Contractor represents that it, its employees and subcontractors have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the services and that such licenses and approvals shall be maintained throughout the term of this Agreement. Any employee of the Contractor or its subcontractors who is determined by the City to be uncooperative, incompetent, a threat to the adequate or timely completion of the project, a threat to the safety of persons or property, or any employee who fails or refuses to perform the services in a manner acceptable to the City, shall be promptly removed from the project by the Contractor and shall not be re-employed to perform any of the services or to work on the project.

J. Contractor Indemnification. Contractor shall indemnify, defend and hold the City, the Moreno Valley Housing Authority, and the Moreno Valley Community Services District (CSD), their officers, agents and employees harmless from any and all claims, damages, losses, causes of action and demands, including, without limitation, the payment of all consequential damages, expert witness fees, reasonable attorney's fees and other related costs and expenses, incurred in connection with or in any manner arising out of Contractor's performance of the work contemplated by this Agreement and this Agreement. Acceptance of this Agreement signifies that the Contractor is not covered under the City's general liability insurance, employee benefits, or worker's compensation. It further establishes that the Contractor shall be fully responsible for such coverage. Contractor's obligation to indemnify shall survive expiration or termination of this Agreement, and shall not be restricted to insurance proceeds, if any, received by

the City, the Moreno Valley Housing Authority, and the CSD, and their officers, agents and employees.

K. Additional Indemnity Obligations. Contractor shall defend, with counsel of City's choosing and at Contractor's own cost, expense and risk, any and all claims, suits, actions or other proceedings of every kind covered by Section "J" that may be brought or instituted against City, the Moreno Valley Housing Authority, and the CSD, and their officers, agents and employees. Contractor shall pay and satisfy any judgment, award or decree that may be rendered against City, the Moreno Valley Housing Authority, and the CSD, and their officers, agents and employees as part of any such claim, suit, action or other proceeding. Contractor shall also reimburse City for the cost of any settlement paid by City, the Moreno Valley Housing Authority, and the CSD, and their officers, agents and employees as part of any such claim, suit, action or other proceeding. Such reimbursement shall include payment for City's attorney's fees and costs, including expert witness fees. Contractor shall reimburse City, the Moreno Valley Housing Authority, and the CSD, and their officers, agents and employees for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided.

L. Insurance Requirements. The Contractor will comply with the following insurance requirements at its sole expense. Insurance companies shall be rated (A Minus: VII—Admitted) or better in Best's Insurance Rating Guide and shall be legally licensed and qualified to conduct business in the State of California:

The Contractor shall procure and maintain, at its sole expense, Workers' Compensation Insurance in such amounts as will fully comply with the laws of the State of California and which shall indemnify, insure and provide legal defense for the Contractor and the City, the Housing Authority and CSD against any loss, claim, or damage arising from any injuries or occupational diseases happening to any worker employed by the Contractor in the course of carrying out the Agreement. This coverage may be waived if the Contractor is determined to be functioning as a sole proprietor and the city provided form "Exception to Worker's Compensation Coverage" is signed, notarized and attached to this Agreement

☒ General Liability Insurance—to protect against loss from liability imposed by law for damages on account of bodily injury, including death, and/or property damage suffered or alleged to be suffered by any person or persons whomever, resulting directly or indirectly from any act or activities of the Contractor, sub-Contractor, or any person acting for the Contractor or under its control or direction. Such insurance shall be maintained in full force and effect throughout the terms of the Agreement and any extension thereof in the minimum amounts provided below:

Bodily Injury	$1,000,000 per occurrence/ $2,000,000 aggregate
Property Damage	$500,000 per occurrence/ $500,000 aggregate

☐ Professional Errors and Omission Insurance—such coverage shall not be less than $1,000,000 per claim and aggregate.

☒ Liability and Property Damage Insurance coverage for owned and non-owned automotive equipment operated on City/CSD/Housing Authority premises. Such coverage limits shall not be less than $1,000,000 combined single limit.

A Certificate of Insurance and appropriate additional insured endorsement evidencing the above applicable insurance coverage shall be submitted to the City prior to the execution of this Agreement. The Certificate of Insurance or an appropriate binder shall bear an endorsement containing the following provisions:

> Solely as respect to services done by or on behalf of the named insured for the City of Moreno Valley, it is agreed that the City of Moreno Valley, the Moreno Valley Housing Authority, and the Moreno Valley Community Services District, their officers, employees and agents are included as additional insured under this policy and the coverage(s) provided shall be primary insurance and not contributing with any other insurance available to the City of Moreno Valley, the Moreno Valley Housing Authority, and the Moreno Valley Community Services District, its officers, employees and agents, under any third party liability policy

The terms of the insurance policy or policies issued to provide the above coverage shall neither be amended to reduce the required insurance limits and coverages nor shall such policies be canceled by the carrier without thirty (30) days prior written notice by certified or registered mail of amendment or cancellation to the City, except that cancellation for non-payment of premium shall require ten (10) days prior written notice by certified or registered mail. In the event the insurance is canceled, the Contractor shall, prior to the cancellation date, submit new evidence of insurance in the amounts established.

M. Intellectual Property. Any system or documents developed, produced or provided under this Agreement, including any intellectual property discovered or developed by Contractor in the course of performing or otherwise as a result of its work, shall become the sole property of the City unless explicitly stated otherwise in this Agreement. The Contractor may retain copies of any and all material, including drawings, documents, and specifications, produced by the Contractor in performance of this Agreement. The City and the Contractor agree that to the extent permitted by law, until final approval by the City, all data shall be treated as confidential and will not be released to third parties without the prior written consent of both parties.

N. Entire Agreement. This Agreement constitutes the entire agreement between the parties. There are no understandings, agreements, or representations of warranties, expressed or implied, not specified in this Agreement. This Agreement applies only to the current proposal as attached. This Agreement may be modified or amended only by a subsequent written Agreement signed by both parties. Assignment of this Agreement is prohibited without prior written consent.

O. (a) The City may terminate the whole or any part of this Agreement at any time without cause by giving at least ten (10) days written notice to the Contractor. The written notice shall specify the date of termination. Upon receipt of such notice, the Contractor may continue work through the date of termination, provided that no work or service(s) shall be commenced or continued after receipt of the notice which is not intended to protect the interest of the City. The City shall pay the Contractor within thirty (30) days after receiving any invoice after the date of termination for all non-objected to services performed by the Contractor in accordance herewith through the date of termination.

(b) Either party may terminate this Agreement for cause. In the event the City terminates this Agreement for cause, the Contractor shall perform no further work or service(s) under the Agreement unless the notice of termination authorizes such further work.

(c) If this Agreement is terminated as provided herein, City may require Contractor to provide all finished or unfinished documents and data and other information of any kind prepared by Contractor in connection with the performance of services under this Agreement. Contractor shall be required to provide such documents and other information within fifteen (15) days of the request.

(d) In the event this Agreement is terminated in whole or in part as provided herein, City may procure, upon such terms and in such manner as it may determine appropriate, similar to those terminated.

P. Payment. Payments to the Contractor pursuant to this Agreement will be reported to Federal and State taxing authorities as required. The City will not withhold any sums from compensation payable to Contractor. Contractor is independently responsible for the payment of all applicable taxes. Where the payment terms provide for compensation on a time and materials basis, the Contractor shall maintain adequate records to permit inspection and audit of the Contractor's time and materials charges under the Agreement. Such records shall be retained by the Contractor for three (3) years following completion of the services under the Agreement.

Q. Restrictions on City Employees. The Contractor shall not employ any City employee or official in the work performed pursuant to this Agreement. No officer or employee of the City shall have any financial interest in this Agreement in violation of federal, state, or local law.

R. Choice of Law and Venue. The laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Agreement, and shall govern the interpretation of this Agreement. Any legal proceeding arising from this Agreement shall be brought in the appropriate court located in Riverside County, State of California.

S. Delivery of Notices. All notices permitted or required under this Agreement shall be given to the respective parties at the following address, or at such other address as the respective parties may provide in writing for this purpose

Contractor: Merchants Landscape Services, Inc.
[Contractor Name]
1510 South Lyon Street
[Mailing Address]
Santa Ana, CA 92705
[Mailing Address]
Patrick Healy
[Attn: [Insert Name]]
800-645-4881
[Telephone number]
Patrick@merchantslandscape.com
[Email address]

City: CITY OF MORENO VALLEY
14331 Frederick Street, Suite 2
P. O. Box 88005
Moreno Valley, CA 92552-0805
Attn: Special Districts Division

Such notice shall be deemed made when personally delivered or when mailed, forty-eight (48) hours after deposit in the U.S. Mail, first class postage prepaid and addressed to the party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

T. Time of Essence. Time is of the essence for each and every provision of this Agreement.

U. City's Right to Employ Other Contractors. City reserves right to employ other contractors in connection with this project.

V. Amendment; Modification. No supplement, modification, or amendment of this Agreement shall be binding unless executed in writing and signed by both parties.

W. Waiver. No waiver of any default shall constitute a waiver of any other default or breach, whether of the same or other covenant or condition. No waiver, benefit, privilege, or service voluntarily given or performed by a party shall give the other party any contractual rights by custom, estoppel, or otherwise.

X. No Third Party Beneficiaries. There are no intended third party beneficiaries of any right or obligation assumed by the parties.

Y. Counterparts. This Agreement may be signed in counterparts, each of which shall constitute an original.

Z. Invalidity; Severability. If any portion of this Agreement is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect.

AA. Assignment or Transfer. Contractor shall not assign, hypothecate, or transfer, either directly or by operation of law, this Agreement or any interest herein without the prior written consent of the City. Any attempt to do so shall be null and void, and any assignees, hypothecates or transferees shall acquire no right or interest by reason of such attempted assignment, hypothecation or transfer.

SIGNATURE PAGE TO FOLLOW:

SIGNATURE PAGE

IN WITNESS HEREOF, the parties have each caused their authorized representative to execute this Agreement

City of Moreno Valley/City of Moreno Valley Community Services District

By: _____

Title: City Manager, Acting in the capacity of District Manager to the Moreno Valley Community Services District

Date: 8.9.16

Merchants Landscape Services, Inc.

By: _____

Title: (President or Vice President)

Date: 6/30/16

By: _____

Title: Corporate Secretary or Assistant Secretary
(If applicable)

Date: 6/30/16

Affix Corporate Seal Below
(If applicable)

INTERNAL USE ONLY

ATTEST:

_____
City Clerk

APPROVED AS TO LEGAL FORM:

_____
City Attorney

8-3-16
Date

RECOMMENDED FOR APPROVAL:

_____ for Ahmad Ansari
Department Head

8/1/16
Date

A.9.d

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN

Packet Pg. 156

EXHIBIT A – GENERAL PROVISIONS

RFP NO. 2016-009
LANDSCAPE DISTRICTS - SOUTH
MAINTENANCE OF PARKWAY AND MEDIAN
LANDSCAPING AND IRRIGATION

1. GENERAL PROVISIONS - SCOPE OF WORK

A. The work to be performed under this Contract shall include the furnishing of all labor, material, and equipment necessary for the provision of landscape, irrigation and appurtenant maintenance services within the boundaries of the various City LMDs and/or zones of the City as determined in the resolutions of the City Council and/or Community Services District Board establishing said LMDs and/or zones, and as said boundaries may have been heretofore or may be hereafter altered, and as more particularly shown on the Location Map or Maps attached at the end of this exhibit, Section 21 (Project Location Maps).

B. The Contractor shall have the duty to: mow, edge, trim, and fertilize turf, (if applicable), groundcover, and shrub areas designated hereunder; regularly maintain and prune those portions of trees up to eighteen feet (18') in height; remove litter and debris from all sites as required under this Agreement; provide general pest control services as requested, including but not limited to weeds, insects, and diseases; maintain irrigation systems; hand water and bleed valves as necessary during emergencies when automatic systems are not functioning.

C. All work shall be performed in accordance with usual and customary horticultural practices to achieve, and maintain healthy, viable landscapes. The Public Works Director of the City of Moreno Valley, or his/her delegated representative(s), hereinafter designated as "Director" will periodically inspect all the operations and approve or reject the work performed, and methods or materials used, and make changes in the work scheduling.

D. The Contractor shall be responsible for carefully reviewing the site(s), and verifying the square footage noted for each location of proposed work included in the Proposal. The Contractor shall not be relieved of his/her/its liability under this Agreement, nor shall the City be held liable for any loss sustained by the Contractor as a result of any variance between conditions as referred to in the Technical Provisions, and the actual conditions revealed during the examination of the locations of the proposed work.

E. All work shall be performed in accordance with the General and Technical Provisions of this Contract and in accordance with an approved service schedule, as approved by the Director. Service schedules may be modified with 30 days advance written notice by the City.

2. GENERAL PROVISIONS - SCHEDULING OF WORK

A. The Contractor will adhere to the facilities, equipment and monthly and annual work schedules submitted as a part of the Contractor's RFP, and incorporated herein by this reference. These schedules, and any approved revisions thereto, will be used by the City as a basis for determining Contractor's satisfactory performance.

B. Revisions to facilities, equipment, or monthly and annual work schedules may not be implemented without the prior written approval of the Director. The Contractor is required to submit proposed revisions regarding facilities, equipment or monthly and annual work schedules in writing to the City at the address as set forth in Section 3, paragraph S of the Independent Contractor Agreement at least ten (10) working days prior to commencing work per the proposed revisions.

C. Failure to submit proposed revisions concerning facilities, equipment, or work schedules by the time limits established hereinabove may result in the Contractor becoming liable to the City for non-performance penalties per Exhibit C, Section 4.

D. The above provisions shall not be construed to eliminate the Contractor's responsibility for complying with the requirement to notify the Director for Specialty type maintenance as set forth immediately hereinafter.

E. The Contractor shall notify the Director in writing at least five (5) working days prior to the date and time of all "Specialty" type maintenance operations. Specialty type maintenance operations includes, but is not limited to:

1. Fertilization;
2. Turf Aeration;
3. Application of pesticides by any method;
4. Other operations so designated by the Director.

Notification of "Specialty" maintenance operations shall include a brief description of intended method(s) of execution, materials to be used, and the dates for commencement and completion of said operations. Failure to complete "Specialty" operations by the indicated date may result in the assessment of non-performance penalties per Exhibit C, Section 4.

F. When inclement weather renders performance per the approved schedule unsafe, impractical, or liable to damage landscaping, the Contractor is required to adjust his work force in order to accomplish those work items not affected by weather, and will contact the City field staff to inform them of said alternate work assignments. Failure to advise the City field staff may be cause for assessment of non-performance penalties per Exhibit C, Section 4.

G. For the purposes of this Contract, "Working Days" are Mondays through Thursdays, excluding holidays as provided herein. The hours of on-site maintenance service will be from 7:00 a.m. to 4:30 p.m., not including mobilization to or from work site, on those days maintenance is to be provided pursuant to the work schedule as approved by the Director. Any work the Contractor proposes to perform outside of the days and hours set forth hereinabove, as well as on legal City holidays, shall not be undertaken without the prior written approval of the Director.

The following days have been designated as holidays by the City:

New Year's Day	January 1
Martin Luther King Jr. Day	3rd Monday in January
President's Day	3rd Monday in February
Memorial Day	Last Monday in May
Independence Day	July 4
Labor Day	1st Monday in September
Veteran's Day	November 11
Thanksgiving Day	4th Thursday in November
Day after Thanksgiving	4th Friday in November
Christmas Eve	December 24
Christmas Day	December 25

If a holiday falls upon a Sunday, the following Monday shall be the day the holiday is observed. If a holiday falls upon a Saturday, the preceding Friday shall be the day the holiday is observed. If a scheduled maintenance service day falls on a designated holiday, the Contractor shall submit a proposed make-up day for the Director's approval.

3. GENERAL PROVISIONS - FUNCTIONS AND RESPONSIBILITIES

A. For award of the Contract to a Contractor who has not performed landscape and irrigation maintenance services for the site(s) as identified within this Contract for the prior year's contacting term, the Director and Contractor shall conduct an inspection of all sites covered under this Contract as soon as practicable after its execution, and prior to commencement of Contractor's operations. Following said inspection, the Contractor shall submit to the Director a written affidavit certifying the actual condition of the site(s) relative to the City Specifications, including but not limited to the nature and extent of any deficiencies noted by the Contractor, and acknowledged by the Director. The Contractor is hereby advised that this affidavit shall serve as the benchmark for the Director's evaluation of Contractor's performance under this Agreement. Failure to maintain site(s) up to this established standard may result in the City deducting payment of all or part of the Contractor's compensation, as described in Exhibit C, Section 3.

B. The Contractor shall on an ongoing basis maintain a monthly log that records all work performed by the Contractor. Said log shall be in a form and content acceptable to the Director (see Exhibit G, Monthly Landscape Services Report Form), and shall be submitted to the Director by the tenth day of each month, one (1) month in arrears.

C. The monthly payment for the work so reported will not be authorized until such report (Monthly Report) is received, and approved by the Director.

D. The Director may require the Contractor to attend meetings with the City field staff at some fixed interval to review the Contractor's operations, and schedule future work as may be ordered by the Director. Failure to attend regularly scheduled meetings may result in the assessment of non-performance penalties per Exhibit C, Section 4.

E. The Contractor shall maintain an office at some fixed place, and be listed in the telephone directory in Contractor's own name or in the Contractor's company name.

Contractor shall at all times employ some responsible person(s) to receive phone calls and take the necessary action regarding all inquiries, complaints, and/or emergency calls that may be received from the Director or other authorized individuals or agencies as listed in Exhibit A, Section 3., paragraph F. below. This person(s) shall be reachable twenty-four (24) hours per day, seven (7) days a week.

During normal working hours, the Contractor's Supervisor or designated employee responsible for providing maintenance services to the City shall be directly available for immediate notification through some type of reliable electronic means, including but not limited to, mobile or cellular phone. The Contractor or Contractor's designated employee shall confirm said notification within one (1) hour of receipt. An answering service will be considered an acceptable substitute for coverage only during periods outside of normal working hours, provided Contractor is advised of emergency calls within one (1) hour of receipt of the call by the answering service and within twenty-four (24) hours after receipt of non-emergency calls by the answering service. The above provision for Contractor's communication with the City is the minimum acceptable standard under this Contract. Failure to capably provide regular communication may result in the Contractor being assessed non-performance penalties, per Exhibit C, Section 4.

F. The Contractor shall respond to an emergency call from any of the parties listed herein this section no later than two (2) hours following first notification by telephone, written email, written mailed correspondence or facsimile transmission. In situations involving emergency repair work after normal working hours, the Contractor shall dispatch qualified personnel, and equipment to reach the site within two (2) hours of first notification. An emergency may be called by the following individuals or agencies at **any** time:

1. City Manager
2. Public Works Director
3. Police Department
4. Fire Department
5. Special Districts Division Manager
6. Street Maintenance Supervisor
7. Landscape Services Supervisor
8. Landscape Services Inspector
9. Landscape Irrigation Technician

Contractor's emergency response and any necessary corrective work shall be considered Additional Work as defined in Exhibit C, Section 2, unless said emergency is determined to have been caused by an act or omission attributable to the Contractor.

4. GENERAL PROVISIONS - CONTRACTOR'S STAFF

A. The Contractor shall provide sufficient personnel to perform all work in accordance with the Specifications set forth herein. All of the Contractor's maintenance personnel shall be supervised at the work site(s) by a qualified Supervisor in the employ of the Contractor. Work Site Supervisors must be able to demonstrate to the satisfaction of the Director that they possess adequate technical background, and communication skills to perform the intended services. Adequate and competent supervision shall be provided for all work done by the Contractor's employees to ensure accomplishment of high quality work, which will be acceptable to the Director. Any order or communication given to the Work Site Supervisor shall be deemed to have been delivered to the Contractor.

B. The Contractor and his employees and subcontractors, if any, shall conduct themselves in a proper, professional, and efficient manner at all times, and shall cause the least possible inconvenience to the public.

C. The Director may require the Contractor to remove from the work site any employee(s) deemed careless, incompetent, or otherwise objectionable, whose continued employment on the job is considered to be contrary to the best interests of the City.

D. The Contractor shall require each employee performing work under the Contract to adhere to basic public works standards of working attire, including but not limited to wearing of proper clothing, proper shoes, and other gear required by applicable Safety Regulations and/or fertilizer/pesticide label requirements.

Shirts shall be worn at all times, and shall be buttoned. Approved safety vests shall be worn by Contractor's employees when working on parkway medians, monuments, parkways, and other high traffic-hazard areas as determined by the Director. Failure to comply with the above requirements may make the Contractor liable for assessment of non-performance penalties, per Exhibit C, Section 4.

A.9.d

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN

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E. The Contractor shall establish an identification system for Contractor's personnel which clearly indicates to the public the name of the Contractor. The identification system shall be furnished at the Contractor's expense and may include appropriate attire, and/or name badges as specified by the Director.

5. GENERAL PROVISIONS - EMPLOYMENT OF APPRENTICES

The provisions of Sections 1777.5, 1777.6, and 1777.7 of the California Labor Code regarding the employment of properly registered apprentices may apply to this Contract if the Contractor, or any subcontractors thereunder, employs workers in any apprenticeable craft or trade. It is the Contractor's sole responsibility to comply with the Labor Code sections cited above. Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the California Department of Industrial Relations.

6. GENERAL PROVISIONS - COMPLAINTS

A. All complaints shall be responded to as soon as possible after notification, but in all cases within twenty-four (24) hours, to the satisfaction of the Director. If any complaint is not satisfactorily responded to within twenty-four (24) hours, the Director shall be notified immediately of the reason for not remedying the complaint followed by a written report to the Director within five (5) working days. If the complaints are not remedied within the time specified, and to the satisfaction of the Director, the Director may correct the specific complaint by using an alternative source. The total cost incurred by the District to effect necessary remedies will be deducted from the payments owing to the Contractor from the City, per Exhibit C, Section 3.

B. The Contractor shall maintain a written log of all complaints, the date and time thereof, and the action taken pursuant thereto, or the reason for non-action. Said log shall be submitted to the Director monthly as set forth in Exhibit A, Section 3, paragraph B.

C. In addition to the provisions of Exhibit A, Section 6, paragraph A, in the event of a failure by the Contractor to satisfactorily remedy a complaint in a timely manner or for any other breach of this Agreement by Contractor, the City may immediately upon written notice to the Contractor terminate this Agreement.

7. GENERAL PROVISIONS - SAFETY

A. The Contractor agrees to perform all work as outlined in the Provisions listed herein in such a manner as to meet all accepted standards for safe practices and to safely maintain equipment, machines, and materials, and prescribe and employ all precautions and safety procedures related to other hazards consequential to the work; and accepts additionally the sole responsibility for complying with all local, State, Federal and other legal requirements including but not limited to, full compliance with the terms of any and all applicable OSHA and Cal/OSHA Safety Orders at all times so as to protect all persons, including Contractor's employees

and subcontractors, agents of the City, District, materialmen, vendors, members of the public and others from foreseeable injury, or damage to their property.

B. The Contractor's operations shall be conducted in such a manner as to cause the least possible obstruction, and inconvenience to public traffic. The Contractor shall furnish, erect and maintain such fences, barriers, lights and warning signs as may be deemed necessary by the Director, or any duly constituted public safety official.

Contractor's work area traffic control, including but not limited to type and placement of signs, barricades, and delineators, shall be in accordance with the "Manual of Uniform Traffic Control Devices, 2012 (or most current revised version) California Supplement" Part 6 Temporary Traffic Control.

Contractor's work should not encroach into open lanes of traffic between the hours of 7:00 a.m. and 8:30 a.m., or between the hours of 3:30 p.m. and 6:00 p.m.

C. The Contractor shall maintain all work sites free of hazards to persons or property resulting from Contractor's operations. The Contractor shall inspect for all potential hazards at said areas under maintenance, and keep a log indicating date inspected, and action taken. Said log shall be submitted to the Director monthly as set forth in Section 3, paragraph B above. Any hazardous condition noted by the Contractor, which is not a result of Contractor's operations, shall be immediately reported to the Director.

D. The Contractor shall be responsible for making minor corrections, including but not limited to, filling holes in turf areas, replacing valve box covers, and repairing irrigation systems, so as to protect members of the public or others from injury.

The Contractor shall cooperate fully with the City in the investigation of any accidental injury or death occurring on the site, including a complete written report thereof to the Director within five (5) working days following the occurrence.

E. Failure to comply with the provisions of this section of Exhibit A may result in payment deduction per Exhibit C, Section 3, or assessment of non-performance penalties per Exhibit C, Section 4. Repeated failure to comply with the provisions of this section may result in termination of the Agreement, per the terms of the independent Contractor Agreement, Section 3, paragraph O.

8. USE OF CHEMICALS

A. Before the beginning of the Contract period, the Contractor is required to submit a list, which shall include the exact Brand Name, Label, and Material Safety and Data Sheet (MSDS) of all chemicals proposed for use under this Agreement, including but not limited to fertilizers and pesticides, for approval by the Director. Where applicable, materials included on this list shall be chemicals as approved by the State of California Department of Food and Agriculture.

B. Director shall be notified in writing of any changes or deviations from the above list. Use or application of said materials shall not be made prior to approval by the Director. Failure to comply with this requirement may result in the assessment of non-performance penalties, per Exhibit C, Section 4.

C. Chemical applications, including but not limited to fertilizers and pesticides, shall be made in strict compliance with the label directions, restrictions, and precautions as well as with any other requirements deemed necessary by any county, state, or federal regulatory agency, or the Public Works Department of the City of Moreno Valley.

D. Contractor shall report all fertilizers and pesticides used in the performance of the work as an element of Contractor's Monthly Report, as set forth in Exhibit A, Section 3, paragraph B. This report shall include the date, time of day, location, type of material, method of application, and environmental data.

9. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT - REQUIRED URBAN RUNOFF MANAGEMENT TRAINING

The Contractor shall provide National Pollutant Discharge Elimination System (NPDES) Permit training for Urban Runoff Management to Contractor's employees and subcontractors if any. Failure to provide Urban Runoff Management training is a violation of Order No. R8-2002-0011, NPDES No. CAS 618033 (Municipal Separate Storm Sewer System NPDES Permit), Section XI.I, for each day of which such failure occurs, and shall in addition, be a breach of the Contract with the City of Moreno Valley and/or the City of Moreno Valley Community Services District ("City"). Contractor understands and agrees that NPDES Permit violations are grounds for enforcement action by the Environmental Protection Agency, the State/Regional Water Resources Control Board, and the City and may result in permit termination (stop work order), civil and criminal fines, and termination of Contract. By submitting a proposal, the Contractor certifies to the City that Contractor's employees and subcontractors, if any, have been trained for Urban Runoff Management, and sufficient sums are included in the proposal's amount to cover costs of such said training.

10. LICENSES AND PERMITS

The Contractor shall, without additional expense to the City, possess all licenses and permits, including but not limited to a valid City Business License, required for the performance of the work under this Contract.

11. PREVAILING WAGE

A. Pursuant to provision of Section 1773 of the Labor Code of the State of California, the City of Moreno Valley has obtained the general prevailing rate of per diem wages applicable for the work to be done, including but not limited to: straight time, overtime and holiday work; travel and subsistence payments; employee payments of health and welfare, vacation, pension, and similar purposes. Said rate and scale

are on file with the Public Works Department of the City of Moreno Valley, and copies will be made available to any interested party on request. These rates shall be the minimum wage rates for this project. Throughout the term of this Contract, the Contractor will be required to post a copy of said rate, and scale as required by the Labor Code.

B. Pursuant to provisions of Section 1775 of the Labor Code, the Contractor shall forfeit as penalty to the City of Moreno Valley, not more than fifty dollars ($50.00) for each laborer, workman, or mechanic employed for each calendar day or portion thereof, if such laborer, workman, or mechanic is paid less than the general prevailing rate of wages hereinabove stipulated for any work done under the attached Agreement, by the Contractor or by any subcontractor under Contractor's direction and control, in violation of the provisions of said Labor Code.

12. PAYROLL RECORDS

A. The Contractor, and any subcontractor thereunder, shall keep complete accurate payroll records for each workman employed by Contractor/subcontractor in connection with this Contract, as required by California Labor Code Section 1776.

B. The Contractor, and any subcontractor thereunder, shall make available to the City upon its request certified payroll records for each workman employed in connection with this Contract as required by California Labor Code Section 1776.

C. The City may withhold from Contractor's progress payments the penal sum of twenty-five dollars ($25.00) per calendar day (or portion thereof) for each worker employed in connection with this Contract should Contractor, or any subcontractors thereunder, fail to strictly comply with California Labor Code 1776 after receiving written notice of non-compliance.

13. BONDS

Pursuant to Section 3247 of the Civil Code, the Contractor hereby agrees to provide and maintain in full force and effect for the duration of this Contract, two (2) good, and sufficient surety bonds, to wit:

A. A "Faithful Performance Bond" in the amount of one hundred percent (100%) of the Contract price, which shall guarantee the faithful performance of all work, and;

B. A "Materials and Labor Bond" in the amount of one hundred percent (100%) of the Contract price, which shall secure the payment of the claims of labor, mechanics or materialmen for all work performed hereunder.

14. SUBSTITUTION OF SECURITIES

Pursuant to California Public Contract Code Section 22300, the Contractor will be permitted the substitution of securities for any monies withheld by the City of Moreno Valley to ensure performance under the Contract. At the request and expense of the Contractor, securities equivalent to the amount withheld shall be deposited with the City of Moreno Valley, or with a state or federally chartered bank as the escrow agent, who shall pay such monies to the Contractor. Securities eligible for substitution under this section shall include those listed in Section 16430 of the Government Code, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, and standby letters of credit. The Contractor shall be the beneficial owner of any securities substituted for monies withheld, and shall receive any dividends or interest thereon. The Contractor shall give the City written notice within thirty (30) days after the Contract is awarded that it desires to substitute securities for money that would ordinarily be withheld. If the substituted securities are deposited into an escrow, the escrow shall be governed by a written escrow agreement in a form which is substantially similar to the agreement set forth in Section 22300 of the Public Contract Code.

15. CONTRACTOR'S LIABILITY

The Contractor shall be responsible for all damages to people and/or property that occur as a result of the fault or negligence attributable to the Contractor in connection with the performance under this Agreement. Any and all restitution or repairs deemed necessary by the Director to remedy such damages shall be furnished and performed at the Contractor's sole expense, and shall be completed within the time limits established by the Director.

16. CONTRACTORS LICENSE

Contractors are required by law to be licensed, and regulated by the Contractors' State License Board. Contractor will comply with all applicable licensing laws, and regulations. Any questions concerning a Contractor may be referred to the Registrar, Contractors' State License Board, 9821 Business Park Driver, Sacramento, CA 95827. Mailing address: P.O. Box 26000, Sacramento, CA 95826.

17. TECHNICAL PROVISIONS – TURF AND PLANTER

A. TURF CARE (IF APPLICABLE)

1. All turf areas shall be mowed, edged, and trimmed per the Frequency of Service Table, as set forth in Exhibit E, Section V. Schedule I A. Should weather and/or site conditions preclude the normally scheduled frequency of this service during any month, or portion thereof, the maintenance schedule shall be modified at the discretion and approval of the Director.

2. At the discretion of the Director, turf areas may be mowed with mulching-type mowers of a type acceptable to the City.

3. All mowing and edging equipment shall: be in proper working order; have blades properly sharpened, balanced, and aligned; be thoroughly cleaned of all excess clippings, soil, and debris prior to move-in at each site.

4. All clippings, soil, and debris generated by mowing and edging operations shall be immediately collected, removed from the site, and disposed of in a legal manner. For the purposes of this Specification the term "site" shall include, but is not limited to, appurtenant hardscaping, sidewalks, curbs and gutters.

5. Machines operating on turf known to have a disease, fungus, or insect infestation shall be sterilized with a ten percent (10%) chlorine bleach, and water solution prior to move-in to any other site.

6. Mowing height for cool season grasses shall not exceed three inches (3") maximum, or two inches (2") minimum, and shall be adjusted within these parameters on a seasonal basis.

7. Mowing height for warm season grasses shall not exceed one and one-half inches (1½") maximum, or three-quarters of an inch (¾") minimum, and shall be adjusted within these parameters on a seasonal basis.

8. All turf borders shall be cut with a vertical blade edger. Use of string trimmers to perform this task is not acceptable.

9. Trimming around turf appurtenances (i.e., valve and meter boxes, backflow devices and controller enclosures, sprinklers) may be accomplished through the use of string trimmers.

10. Whenever trees occur in turf areas, a six inch (6") ring of grass shall be removed from around the trunks in order to protect the crowns from mechanical damage. These rings shall be maintained in a clean, weed free condition.

11. Thin areas in turf shall be resodded or reseeded as necessary to prevent invasion of weeds.

12. Fertilization: See Technical Provisions - Fertilization, Exhibit A, Section 19.

13. Pest control: See Technical Provisions - Pesticide Use, Exhibit A, Section 20.

14. Aeration:

    (a) All turf areas shall be aerated per the Frequency of Service Table, as set forth in Exhibit E, Section V. Schedule I A unless otherwise directed by the Director;

(b) Aeration equipment shall be of the hollow tine type. The tines shall have a minimum diameter of one-half inch (½"), and a penetration depth of at least two inches (2"). There shall be no more than six inches (6") between tines;

(c) Areas to be treated shall be adequately irrigated prior to treatment to allow maximum tine penetration;

(d) Any soil cores remaining on the turf surface two (2) weeks after treatment must be removed;

(e) Humus base fertilizer is to be applied directly following spring and fall aeration operations. See Technical Provisions – Fertilization, Exhibit A, Section 19.

15. Renovation/thatching and additional aeration operations are to be considered Additional Work, per Exhibit C, Section 2.

16. Failure to adhere to the Technical Provisions of this section may result in the assessment of non-performance penalties per Exhibit C, Section 4.

B. TREE CARE

1. All trees are to be maintained in a manner that will promote normal, healthy growth.

2. For the purposes of these Specifications, trimming, pruning, and pest control operations for those portions of trees in excess of eighteen feet (18') in height is to be considered Additional Work, per Exhibit C, Section 2.

3. Whenever site conditions permit, trees are to be allowed to grow to assume their full, natural shape, with the minimum constraints necessary to assure public safety and tree survival. All tree pruning shall be done in conformance with **ANSI 300-2001**, (or most current revision); safety requirements shall be per **ANSI Z133-1994** (or most current revision) standards.

4. Trees shall be pruned at any time in order to:

   (a) Remove dead, diseased, or damaged branches;

   (b) Remove unwanted encroachments into public and/or utility rights-of-way;

   (c) Correct any condition which the Director has deemed to be hazardous.

5. Portions of trees up to eighteen feet (18') in height shall:

   (a) Be pruned to enable successful adaptation to their particular site situation;

   (b) Have no more than one-third (1/3) of living branches removed annually;

   (c) Be fertilized only as directed by the City field staff.

6. Portions of trees over eighteen feet (18') in height shall:

   (a) Be inspected annually;

   (b) Pruned and/or trimmed as necessary to maintain proper site orientation;

   (c) Pruned and/or trimmed as necessary to remove unwanted encroachments into public, and/or utility rights-of-way;

   (d) Pruned and/or trimmed as necessary to correct any condition which the Director has deemed to be hazardous.

7. Pruning tools shall:

   (a) Be kept properly sharpened, and in proper working order;

   (b) Be sterilized with five percent (5%) chlorine bleach and water solution before commencing work, and between cuts on any tree known to be diseased.

8. The following practices shall not be allowed:

   (a) internodal cuts of any kind (a.k.a. "stubbing", "shearing", "tipping", "topping");

   (b) Cuts made flush with trunk or branch. The integrity of branch collars is to be maintained at all times;

   (c) Use of pruning paint/pruning compound/wound dressing;

   (d) Use of climbing spurs or gaffs.

9. All prunings/trimmings and debris generated by pruning operations shall be immediately removed from the site, and disposed of in a legal manner.

10. Trees shall be staked/guyed in a manner, and with materials that are acceptable to the Director. Double staking with two (2) lodge pole-type stakes is the minimum City standard.

11. Tree stakes, tree ties, and guy wires shall be inspected regularly to ensure against girdling and abrasion, and removed as soon as possible after tree establishment, and site conditions allow.

12. Pest control: See Technical Provisions – Pesticide Use, Exhibit A, Section 19.

13. Failure to adhere to the Technical Provisions of this section may result in the assessment of non-performance penalties per Exhibit C, Section 4.

C. SHRUB CARE

1. All shrubs are to be maintained in a manner that will promote normal, healthy growth.

2. For the purposes of these Specifications, shrubs are defined as any multi-stemmed/low branching woody plants whose height at maturity is not less than one foot (1'), or greater than ten feet (10').

3. Whenever site conditions permit, shrubs are to be allowed to grow to assume their full, natural shape, with the minimum constraints necessary to assure public safety and plant survival.

4. Shrubs shall be pruned and/or trimmed per the Frequency of Service Table, as set forth in Exhibit E, Section V. Schedule I A, unless otherwise directed by the Director, in order to:

   (a) Remove dead, diseased, or damaged branches;

   (b) Remove unwanted encroachments into public and/or utility rights-of-way;

   (c) Correct any condition which the Director has deemed to be hazardous.

5. Shrubs shall be pruned in a manner that will:

   (a) Enable successful adaptation to their particular site situation;

   (b) Follow the maturation of the leaves/needles of the first seasonal growth flush, unless accepted practices for a particular species (i.e. roses) dictate otherwise;

6. Pruning tools must:

   (a) Be kept properly sharpened, and in proper working order;

   (b) Be sterilized with a five percent (5%) chlorine bleach and water solution before commencing work, and between cuts on any shrub known to be diseased.

7. The following practices are not allowed:

   (a) Internodal cuts (a.k.a. "stubbing", "tipping", "topping"). Shearing (a.k.a. "boxing", "hedging", "balling", "poodling") will be done only when authorized by the Director on a site-specific basis.

   (b) Cuts made flush with trunk or branch. The integrity of branch collars is to be maintained at all times.

   (c) Use of pruning paint/pruning compound/wound dressing.

8. Fertilization: See Technical Provisions - Fertilization, Exhibit A, Section 19.

9. Pest control: See Technical Provisions –Pesticide Use, Exhibit A, Section 20.

10. Failure to adhere to the Technical Provisions of this section may result in the assessment of non-performance penalties per Exhibit C, Section 4.

D. GROUND COVER CARE

1. All ground covers are to be maintained in a manner that will promote normal, healthy growth.

2. For the purposes of these Technical Provisions, ground covers are defined as mass plantings of same-species, multi-stemmed plants with a trailing growth habit, whose height at maturity does not exceed ± one foot (1').

3. Ground covers shall be pruned/trimmed per the Frequency of Service Table, as set forth in Exhibit E, Section V. Schedule I A, unless otherwise directed by the Director in order to:

   (a) Remove dead, diseased, or damaged branches/crowns;

   (b) Remove unwanted encroachments into or upon public and/or utility rights-of-way, as well as other landscape components (i.e., shrubs, trees, turf areas, irrigation equipment, walls, and monuments);

   (c) Correct any condition which the Director has deemed to be hazardous.

4. Ground covers shall be pruned/trimmed/renovated:

   (a) To enable successful adaptation to their particular site situation;

   (b) In accordance with accepted practices for the particular species in question;

5. Pruning tools shall:

   (a) Be kept properly sharpened, and in proper working order;

(b) Be sterilized with a five percent (5%) chlorine bleach, and water solution before commencing operations at any site.

6. String trimmers shall not be used for any of the above described operations unless authorized by the Director on a site-specific, task-specific basis.

7. Fertilization: See Technical Provisions - Fertilization, Exhibit A, Section 19.

8. Pest control: See Technical Provisions –Pesticide Use, Exhibit A, Section 20.

9. Failure to adhere to the Technical Provisions of this section may result in the assessment of non-performance penalties per Exhibit C, Section 4.

E. WEED CONTROL

1. For the purposes of these Specifications, weeds are defined as any plant species whose presence on a site is detrimental to: the appearance of the site, as determined by the Director, and; the normal, healthy growth of the plant materials intended for that site. Any plants which, in the opinion of the Director, constitute a public health or safety hazard shall also be defined as weeds.

2. Weed control shall be addressed per the Frequency of Service Table, as set forth in Exhibit E, Section V. Schedule I A unless otherwise directed by the Director.

3. Chemical weed control: See Technical Provisions – Pesticide Use, Exhibit A, Section 19.

4. Site areas subject to weed control per these Specifications include, but are not limited to: turf areas, tree wells, shrub, planter, and ground cover beds; hardscape areas, including, but not limited to curbs, gutters, and sidewalks; and non-landscaped portions of sites, as determined by the Director.

5. Debris generated by manual and/or mechanical weed control operations shall be immediately removed from the site, and disposed of in a legal manner.

6. Failure to adhere to the specifications of this section of the Technical Provisions may result in the assessment of non-performance penalties per Exhibit C, Section 4.

F. IRRIGATION

1. Water shall be delivered by means of automatic or manually operated sprinkler systems, quick couplers, hose bibbs, or water tank, as specific site and/or weather conditions require.

2. It shall be the Contractor's duty to maintain all City irrigation systems in a manner that assures their full working capability at all times. Said maintenance shall include, but not be limited to: visual and operational inspections; cleaning/adjusting sprinkler nozzles; flushing of lines; trimming around sprinklers to assure proper coverage; routine repairs; and other tasks as assigned by City field staff.

3. For the purposes of this section, routine irrigation repairs are defined as repair and/or replacement of existing sprinklers or sprinkler components and/or non-pressurized pipe and/or fittings ("lateral lines") that have been rendered inoperable due to: 1) normal operation ("wear and tear"), and; 2) vandalism, theft, and acts or omissions by third parties.

4. All repairs to, and/or replacement of, irrigation system control components (i.e., backflow prevention assemblies, controllers and control wires, manual and remote control valves) and pressurized pipe and fittings ("mainlines") rendered inoperable due to circumstances other than Contractor's operations, shall be considered Additional Work, per Exhibit C, Section 2.

5. The Contractor shall furnish, at no cost to the City, a remote valve actuating device that is compatible with the make, and model installed at the site(s). This device shall be used by Contractor's personnel while conducting operational irrigation system inspections, and/or repairs.

6. Automatic irrigation systems shall:

   (a) Be inspected for, and repaired as necessary to, ensure proper operation and coverage;

   (b) Be turned off during periods of rainfall, or as directed by City field staff;

   (c) Have controller and backflow preventer enclosures, utility vaults and/or pedestals, and valve boxes properly secured at all times.

7. Manually operated irrigation systems shall:

   (a) Be operated only when Contractor's personnel are present on site;

   (b) Be inspected for, and repaired as necessary to ensure proper operation and coverage not less than at each time of operation;

   (c) Have any and/or all enclosures, vaults, and valve boxes properly secured at all times.

8. Parts/components used to effect irrigation system repairs shall be of the same manufacture as those originally installed unless otherwise approved by the Director prior to repair operations.

9. Failure to adhere to the Technical Provisions of this section may result in the assessment of non-performance penalties, per Exhibit C, Section 4.

G. DEBRIS/LITTER

1. Debris/litter control shall be provided per the Frequency of Service Table, as set forth in Exhibit E, Section V., Schedule I A unless otherwise stated herein this Section and/or as directed by the Director.

2. The Contractor shall remove immediately after pruning, trimming, weeding, edging or other work required under this Contract, all debris generated by his or her performance of the work.

3. Contractor shall remove from both planted areas and adjacent hardscapes/walkways the following items, which include but are not limited to: bottles, cans, paper/plastic, cardboard, dog litter, tumbleweeds/windblown plant litter, automobile tires, or metallic items. Sites that are, in the opinion of the Director, exceptionally littered shall be cleared by the Contractor before the close of business the working day following notification of this condition.

4. All hardscape areas that include, but are not limited to sidewalks, curbs, and gutters shall be maintained in a hazard-free condition.

5. The Contractor shall dispose of all debris and litter, as described in paragraphs 1 and 2 above, off-site and in a legal manner.

6. The Contractor shall notify the Director immediately whenever suspicious and/or hazardous waste materials are discovered within service area sites. Such materials may include, but are not limited to: discarded motor oil, or other petroleum-based liquids; paint; chemical compounds, pesticides, both liquid and dry; any unknown liquid or dry material in an unmarked container; household appliances; household electronic devices such as, televisions, computers and computer monitors; firearms, ammunition or other appliances. Any such articles shall not be touched, handled, or in any way disturbed or moved from the location where they were discovered. Contractor's staff shall secure the area against entry by any third party until City staff arrives at the site

7. Failure to adhere to the specifications of this section of the Technical Provisions may result in the assessment of non-performance penalties, per Exhibit C, Section 4.

A.9.d

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN

Packet Pg. 174

H. GREENWASTE RECYCLING

1. The Public Resources Code (PRC), Division 30, Sections 41000 through 41780 requires that the City of Moreno Valley divert from landfills fifty percent (50%) of the solid waste, including greenwaste, generated within its jurisdiction.

2. For the purposes of this Contract, materials defined as "greenwaste" shall include all plant parts (i.e., trimmings, prunings, grass clippings, etc.) removed from Contract sites by the Contractor, or any subcontractors thereunder, in the performance of contract's Scope of Work.

3. Contractor, or any subcontractor thereunder, shall deposit all greenwaste generated in the course of the performing the contract's Scope of Work services at a landscape material recycling center, or reuse said greenwaste in some manner. Contractor, or any subcontractor thereunder, shall be solely responsible for all costs incurred in complying with this requirement.

4. The Contractor shall submit a Monthly Greenwaste Report, (see Exhibit I), per The Frequency of Service, Table, Exhibit E, Section V, Schedule I, A, as an element of Contractor's Monthly Reporting requirements, as set forth herein Exhibit A, Section 3. – Functions and Responsibilities. The Contractor shall provide responses to all information requested therein and shall include, on a separate Monthly Greenwaste Report form, any greenwaste generated through the operations of any subcontractors performing under Contractor's Scope of Work.

5. Failure to adhere to the Technical Provisions of this section may result in the assessment of non-performance penalties, per Exhibit C, Section 4.

18. TECHNICAL PROVISIONS – CHANNELS

The channel thinning zones will be subject to long-term management practices for flood control work. The channel-thinning zones are comprised of the two 40-foot-wide thinning zones. Beyond the 40-foot channel-thinning zones, removal of native vegetation shall be allowed only to assure proper operation of slope buffer area irrigation systems, to perform permitted fire protection activities, and to eliminate any hazardous condition for public safety.

The following management tasks pertain to the channel thinning zones:

A. VEGETATIVE THINNING

1. When vegetation and removal is deemed necessary by the City, and regulatory permits are in place to provide for adequate flood protection, the City shall determine if the work shall be accomplished by hand crews, mechanical equipment, or a combination of available resources. In reaching this determination, careful consideration shall be given to the mutual goal of minimizing negative impacts throughout the mitigation site and continuing to

allow the drainage to function as a flood control channel designed to support 100-year flood flows.

2. The channel thinning zones will be maintained annually by mowing or removing vegetation above the existing soil level not to exceed two feet (24-inches) in height so that all channels will support 100-year flood flows.

3. For maintenance of channel the Contractor may use:

   - Four-wheel-drive all-terrain vehicle (ATV) type maintenance vehicles to haul personnel, equipment, trash, trimmings, weeds, and debris.

   - A 30-40 horsepower utility tractor with bucket and mower for mowing channel bottoms

   - A skip-loader and/or backhoe as required to effect irrigation mainline repairs in areas accessible to this type of equipment

B. TIMING OF VEGETATIVE THINNING

1. The Contractor will perform maintenance services within the 40-foot wide thinning zones pursuant to existing City policies, guidelines, and regulations, and required regulatory permits, including but not limited to National Pollutant Discharge Elimination System (NPDES) permits, and community obligations to maintain flood carrying capacity within all channels, as required under FEMA's LOMR, dated September 27, 2004, and required regulatory permits. The contractor shall conduct the annual vegetative thinning program within the 40-foot wide thinning zones between September 16th and March 14th, outside the bird nesting season. If annual vegetative thinning must occur during the nesting season (March 15th to September 15th), this activity will be authorized if the vegetation to be thinned represents a threat to public safety and/or biological surveys confirming the absence of nesting birds occurs at this time as well.

C. PESTICIDE USE AND WEEDING

1. Use of herbicides, pesticides, rodenticides, biocides, fertilizers, or other agricultural chemicals or weed abatement activities shall be limited pursuant to existing City policies and guidelines, and/or as described herein.

2. The Contractor will conduct weed abatement on a quarterly basis including, but not limited to, the exotic plant species listed herein. Weeds shall be removed by hand, including the root, or controlled with an appropriate herbicide as determined by a licensed Pest Control Advisor (PCA). The use of herbicides for weed control within the channel shall be used for species such as Bermuda grass (*Cynodon dactylon*), giant reed (*Arundo donax*), bindweed (*Convolvulus arvensis*), and salt cedar (*Tamarix sp.*). Only pesticides approved for use within streamcourses shall be authorized for use within all channel areas.

3. All weeds shall be removed from the mitigation site and/or controlled at all times.

4. Weeds are defined as "any plant species whose presence on a site is detrimental to the appearance of the site and the normal, healthy growth of plant materials intended for the site." All plants that constitute a public health or safety hazard shall also be considered weeds. Examples of weeds to be controlled include, but are not limited to:

   - Arundo/giant reed (*Arundo donax*);
   - Artichoke thistle/cardoon (*Cynara cardunculus*);
   - Australian saltbush (*Atriplex semibaccata*);
   - Bermuda grass (*Cynodon dactylon*);
   - Biennial mustard (*Hirschfeldia incana*);
   - Black mustard (*Brassica nigra*);
   - Broom species (*Cytisus spp.*);
   - Bull thistle (*Cirsium vulgare*);
   - Canary Island date palm (*Phoenix canariensis*);
   - Castor bean (*Ricinis communis*);
   - Cootamundra wattle (*Acacia baileyana*);
   - Fennel (*Foeniculum vulgare*);
   - Filaree/Storksbill (*Erodium spp.*);
   - Foxtail chess (*Bromus madritensis*);
   - Hottentot fig (*Carpobrotus edulis*);
   - Italian ryegrass (*Lolium multiflorum*);
   - Italian thistle (*Carduus pycnocephalus*);
   - Ivy (*Hedera spp.*);
   - Japanese honeysuckle (*Lonicera japonica*);
   - Kikuyu grass (*Pennisetum clandestinum*);
   - Pampas grass (*Cortaderia jubata; C. selloana*);
   - Periwinkle (*Vinca major*);
   - Peruvian pepper tree (*Schinus molle*);
   - Rabbitsfoot grass (*Polypogon monspeliensis*);
   - Red valerian (*Centranthus ruber*);
   - Ripgut brome (*Bromus diandrus*);
   - Russian thistle (*Salsola tragus*);
   - Slender oats (*Avena barbata*);
   - Soft chess (*Bromus hordeaceus*);
   - Tamarisk (*Tamarix ramosissima, T. parviflora*);
   - Tree tobacco (*Nicotiana glauca*);
   - Umbrella sedge (*Cyperus involucratus*);
   - Water bent grass (*Agrostis viridis*); and
   - Wild oat (*Avena fatua*).

D. IRRIGATION

1. Irrigation for all channel areas shall be maintained in accordance with Section 17 F 2. Irrigation areas specific to channel areas are identified at the end of this exhibit, in section 21 (Project Maps).

E. TRASH AND DEBRIS REMOVAL

1. The mitigation site shall be kept free of trash and debris in perpetuity. Trash and debris removal shall occur in accordance with the Frequency of Services schedule. If trash and debris removal is required during the bird-nesting season, this will be allowed pursuant to required regulatory permits, and/or in order to protect public safety. Care will be taken so that trash removal activities minimize or avoid impacts to existing native plants.

F. ACCESS TO CHANNEL

1. Channel access may be attained via the access road adjacent to the Pedestrian Bridge at the western end of the channel or through the three gates located along Hastings Drive on the northern side of the channel. Pedestrian access shall be authorized for all maintenance or authorized personnel. Care shall be taken to avoid impacts to existing vegetation outside the channel-thinning zones.

G. MULEFATE SCRUB AREA

1. Existing Mulefat Scrub areas, as identified at the end of this exhibit, Section 21 (Project Location Maps), must be left undisturbed.

19. TECHNICAL PROVISIONS – FERTILIZER

A. TURF FERTILIZATION (IF APPLICABLE)

1. Per the Technical Provisions, Exhibit A, Section 17, No. 14, e, a humus base fertilizer shall be applied to turf areas in accordance with Table I, below and the Frequency of Service Table, Exhibit E, Section V, Schedule I, A. At the discretion and request of the Director additional applications at the pricing terms as listed in the additional work section of Scheduled II may be provided. Failure to adhere to this specification may result in the assessment of non-performance penalties, per Exhibit C, Section 4. All turf areas are to be fertilized as per Table I. All fertilizers are to be of indicated analysis or better.

TABLE I

Month	Number of Apps	Type of Fertilizer	Rates per 1,000 sq. ft. Lbs. of Actual N	Lbs. of Fertilizer
FEB	1	22-0-6**	1	4.5 lbs
JUN	1	22-5-5*	1.25	5.7 lbs
OCT	1	22-5-5*	1.25	5.7 lbs

*22-5-5/BEST® TURF GOLD or approved equal Controlled-Release fertilizer. These fertilizers to contain micronutrients including iron. See the following section on fertilizers.

**22-0-6/SCOTTS® PROTURF® + Pre-emergent Weed Control or approved equivalent. These fertilizers to contain micronutrients including iron. See the following sections, below, regarding fertilizers.

2. Humus base fertilizers to be applied by drop spreader only.

3. Humus base fertilizers to be composted, screened, and have a minimum nitrogen level of one-half of one percent (0.5%) (Growpower, EZ Green or equal).

4. Any fertilizers containing iron will be completely removed from concrete sidewalks before irrigation to prevent staining.

5. Contractor shall supply to the Director a list of all proposed fertilizers to be used in the fulfillment of this specification, per Exhibit A, Section 8 – Use of Chemicals. Any changes to said list shall be reported per Exhibit A, Section 8 – Use of Chemicals.

6. Written notification to Director must be provided five (5) working days prior to fertilizer application.

B. SHRUB & GROUND COVER FERTILIZATION

1. All shrubs and ground covers shall be fertilized per the Frequency of Service Table, as set forth in Exhibit E, Section V, Schedule I, A. Table II, below provides the standard fertilization guidelines, however the frequency of the application shall comply with the application frequency rates as identified in the Frequency of Service Table, as set forth in Exhibit E, Section V, Schedule I, A. Failure to adhere to this specification may result in the assessment of non-performance penalties, per Exhibit C, Section 4.

TABLE II

Month	Number of Apps	Type of Fertilizer	Rates per 1,000 sq. ft. Lbs. of Actual N	Lbs. of Fertilizer
April	1	23-5-10 *	1.5	6.5 lbs
Sept	1	23-5-10 *	1.5	6.5 lbs

* 23-5-10/BEST@POLY SUPREME or approved equal

2. Any fertilizers containing iron will be removed from concrete sidewalks before irrigation to prevent staining.

3. Contractor shall supply to the Director a list of all proposed fertilizers to be used in the fulfillment of said Contract, per Exhibit A, Section 8 – Use of Chemicals. Any changes to said list shall be reported per Exhibit A, Section 8 – Use of Chemicals.

4. Written notification to Director must be provided five (5) working days prior to fertilizer application.

5. For fertilizer application reporting specifications, see Exhibit A, Section 3 – Functions and Responsibilities and Exhibit A, Section 8 – Use of Chemicals.

C. TREE FERTILIZATION

1. The intent of tree fertilization is to maintain normal and healthy growth of trees, not to produce excessive, rapid, or unnatural growth. Tree fertilization shall be considered Additional Work, per Exhibit C, Section 2.

2. All trees shall be fertilized as directed by City field staff. Fertilizer type and rates will be specified on a per job basis.

   (a) Fertilizer will be placed per manufacturer's recommendations, or as directed by City and/or District field staff.

   (b) No injecting or drilling into tree trunk will be allowed.

   (c) Applications shall be made when the first growth flush of the year is at 80% leaf expansion, but not before April 30.

   (d) Any fertilizers containing iron will be removed from concrete surfaces before irrigation to prevent staining.

3. Contractor shall supply to the Director a list of all proposed fertilizers to be used in the fulfillment of said Agreement, per Exhibit A, Section 8 – Use of Chemicals. Any changes to said list shall be reported per Exhibit A, Section 8 – Use of Chemicals.

4. Written notification to Director must be provided a minimum of five (5) working days prior to fertilizer application.

5. For fertilizer application reporting specifications, see Exhibit A, Section 3 – Functions and Responsibilities and Exhibit A, Section 8 – Use of Chemicals

20. TECHNICAL PROVISIONS – PESTICIDE USE

A. GENERAL

1. The City of Moreno Valley and the Moreno Valley Community Services District encourages the use of effective alternative pest control measures.

2. All pesticide applications shall be made by or under the supervision of a person holding a valid license, permit or certificate issued pursuant to Sections 11701 and following, and Sections 14151 and following, of the California Food and Agricultural Code. Said person or company is to be registered to conduct a pest control business in the State of California, and the County of Riverside during the entire term of this Agreement.

3. All pesticide applications shall be applied as directed by the Director.

4. All pesticide use recommendations shall be in writing, and shall be made by a person holding a valid State of California pest control adviser license pursuant to Sections 12001, and following of the California Food and Agricultural Code. Said person is to be registered with the office of the Agricultural Commissioner of the County of Riverside during the entire term of this Agreement.

5. Before the beginning of the Contract period, Contractor shall supply to the Director a list of all proposed pesticides to be used, along with a use recommendation for each pesticide, in the fulfillment of said Agreement, per Exhibit A, Section 8 – Use of Chemicals. No pesticide application shall be made prior to Contractor's submittal and Director's approval of said list, and recommendations. Per Exhibit A, Section 8 – Use of Chemicals, any changes, additions, deletions or substitutions to the recommended pesticides listed shall be submitted in writing to the Director for approval prior to any use of newly recommended material. Failure to adhere to any part of this specification may result in the assessment of non-performance penalties, per Exhibit C, Section 4.

6. Disposal of empty pesticide containers, if made in the County of Riverside, shall be in strict compliance with label direction, restrictions and precautions, and all applicable federal, state, county, and local regulations, including but not limited to California Code of Regulations, Sections 6684, 3142, and 3143. The Director may require proof of such compliance in the form of a

copy of a Contractor's annual Letter of Compliance, as issued by the County Agricultural Commissioner, and submitted by Contractor to the County Waste Management Department.

B. REPORTING SPECIFICATIONS

1. Contractor shall be responsible for the filing of all required records and reports, including but not limited to Notice of Intent to Apply, and Pesticide Use Reports, as specified by all county, state and federal agencies. Said reports shall contain accurate and valid information. The Director may require copies of all such records and reports be made available for inspection by City staff after giving twenty-four (24) hour notice to Contractor.

2. For pesticide application reporting specifications, see Exhibit A, Section 3 – Functions and Responsibilities and Exhibit A, Section 8 – Use of Chemicals.

3. A written notice shall be provided to the Director five (5) working days prior to any pesticide application. Notice shall include name of chemical, area, rate and method of application, and time of day. Failure to adhere to this specification may result in the assessment of non-performance penalties, per Exhibit C, Section 4.

C. GROUND COVERS, SHRUBS, & TREES - PESTICIDE USAGE CRITERIA

1. Weed Control

   (a) All shrub bed areas shall be treated with an appropriate pre-emergent herbicide at the maximum allowable rate according to the label, and state regulations. This treatment shall be performed twice a year, as determined by the Director.

   (b) Appropriate chemical control must be used on the following weeds.

   Bermuda Grass
   Kikuyu Grass
   Nutsedge
   Field Bindweed
   Spurge

   The aforementioned list is inclusive; other species may be added by the Director as necessary

   (c) Failure to adhere to the above specifications for weed control may result in the assessment of non-performance penalties, per Exhibit C, Section 4.

2. Snail Control

(a) Snails shall be controlled on a regular basis on the following plant species:

Agapanthus africanus
Aptenia sp.
Gazania sp.
Hemerocallis sp.

(b) Snails shall be controlled on an as needed basis on all other plant material.

(c) Failure to adhere to the above specifications for snail control may result in the assessment of non-performance penalties, per Exhibit C, Section 4.

3. Insect and Disease Control

(a) The Director may require certain tree species, which are subjected to excessively dusty conditions be rinsed off with water, as directed by City field staff. Rinsing operations that require the use of powered delivery systems shall be considered Additional Work, per Exhibit C, Section 2.

(b) The Director may require all Platanus species be sprayed annually with two applications of a copper based dormant spray should an infestation be detected. Applications that require the use of powered delivery systems shall be considered Additional Work, per Exhibit C, Section 2.

(c) The Director may require all Pyrus and Pyracantha species found to be infected with fireblight be treated with annual applications of a copper based dormant spray. Applications that require the use of powered delivery systems shall be considered Additional Work, per Exhibit C, Section 2.

(d) The Director may require all Juniperus, Pinus, Cupressus and Pyracantha species found to be infested with mites be treated with an appropriate acaricide. Applications that require the use of powered delivery systems shall be considered Additional Work, per Exhibit C, Section 2.

(e) All other insect, disease, and fungus problems will be treated on a site- and need-specific basis as determined by the Director. Any preventative or curative treatment that requires the use of powered delivery systems shall be considered Additional Work, per Exhibit C, Section 2.

4. Vertebrate Pest Control

All vertebrate pests, including but not limited to gophers, ground squirrels, moles, voles, and mice, shall be controlled on a regular basis wherever and whenever found on the site(s). Control methods shall be as approved by the Director and shall include, but not be limited to, chemical, and mechanical methods. Failure to treat site(s) for vertebrate pests within seven (7) calendar days of notification from the Director may result in the assessment of non-performance penalties, per Exhibit C, Section 4.

D. TURF - PESTICIDE USAGE CRITERIA (IF APPLICABLE)

1. Weed Control

   (a) When the Director determines that the turf weed population at any site(s) exceeds acceptable levels, an appropriate herbicide shall be applied in accordance with all label specifications. Treatments that require the use of powered delivery systems may be considered Additional Work, per Exhibit C, Section 2.

   (b) All turf areas that the Director has determined to be prone to annual weed grass intrusion shall require annual applications of pre-emergent herbicides labeled for such use. Any preventative treatment that requires the use of powered delivery systems may be considered Additional Work, per Exhibit C, Section 2.

   (c) Failure to apply turf weed control materials within the time frames established by the Director may result in the assessment of non-performance penalties, per Exhibit C, Section 4.

2. Insect and Disease Control

   (a) All turf areas that the Director has determined to have a history of fungus infection shall be treated annually with an appropriate fungicide, as directed. Treatments that require the use of powered delivery systems may be considered Additional Work, per Exhibit C, Section 2.

   (b) All other insect, disease, and fungus problems will be treated on a site and need-specific basis as determined by the Director. Any preventative or curative treatment that requires the use of powered delivery systems may be considered Additional Work, per Exhibit C, Section 2.

3. Vertebrate Pest Control

All vertebrate pests, including but not limited to gophers, ground squirrels, moles, voles, and mice, shall be controlled on a regular basis wherever, and whenever found on the site(s). Control methods shall be as approved by the Director and shall include, but are not limited to, chemical, and mechanical methods. Failure to treat site(s) for vertebrate pests, within forty-eight (48) hours of being noticed by the Director, may result in the assessment of non-performance penalties, per Exhibit C, Section 4.

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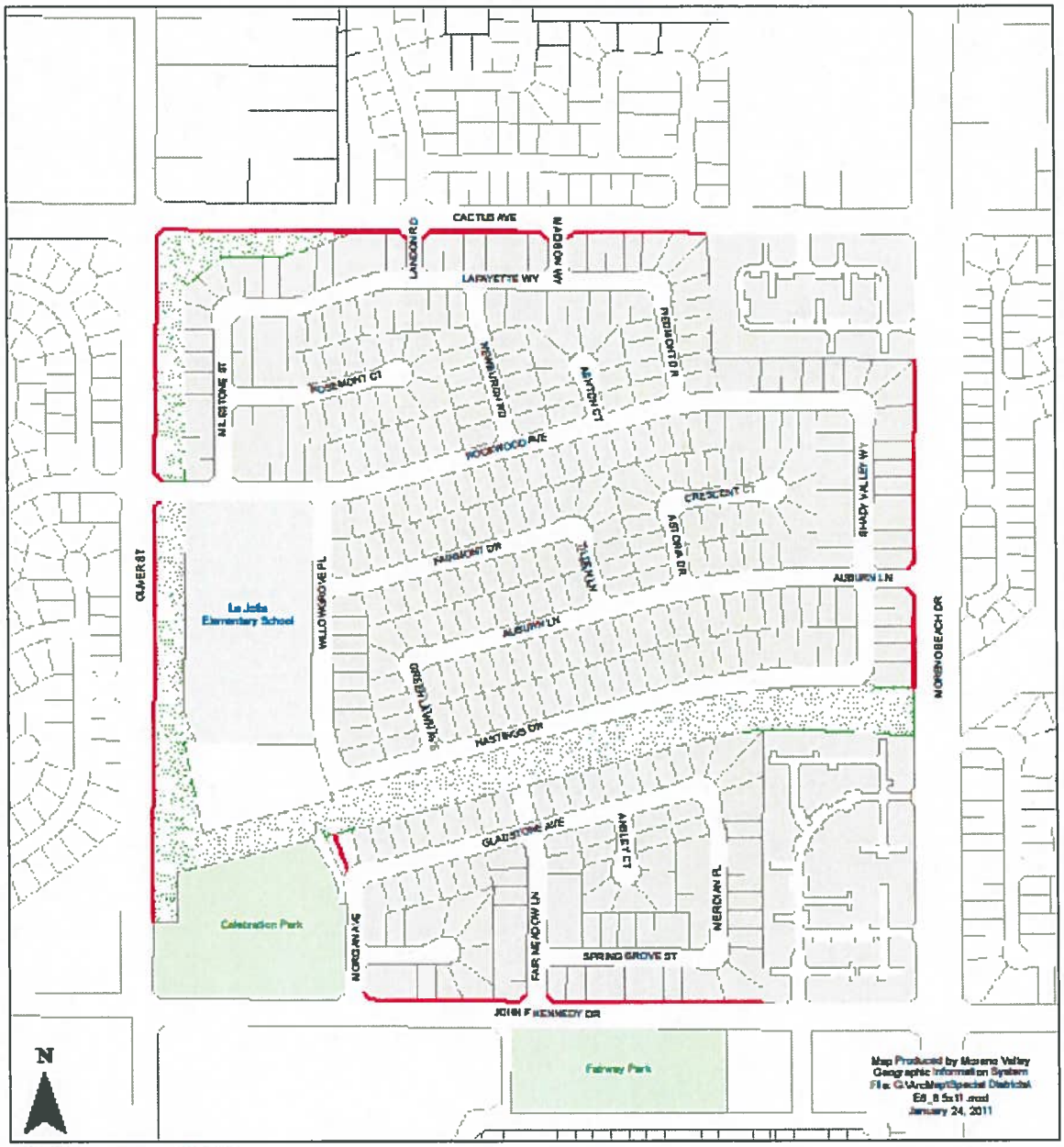
21. PROJECT LOCATIONS MAPS

DISTRICT	MAINTENANCE AREA	ESTIMATED SQ. FT.
E-8	Existing Planter	48,500
E-8	Oliver Street Channel[1]	225,553
E-8	Line F East Channel[1]	379,744
E-8	Line F East Planter[2]	1,568
Zone 04	Planter	555,541
Zone 04	Turf	424,863
Zone 05	Planter	98,392
Zone 06	Planter	164,937
Zone 06	Turf	13,627
Zone 07	Planter	44,591
Zone 07	Line F West Channel[1]	180,563

Moreno Valley Community Services District
Extensive Landscaping & Irrigation

Zone E-8 • Promontory Park



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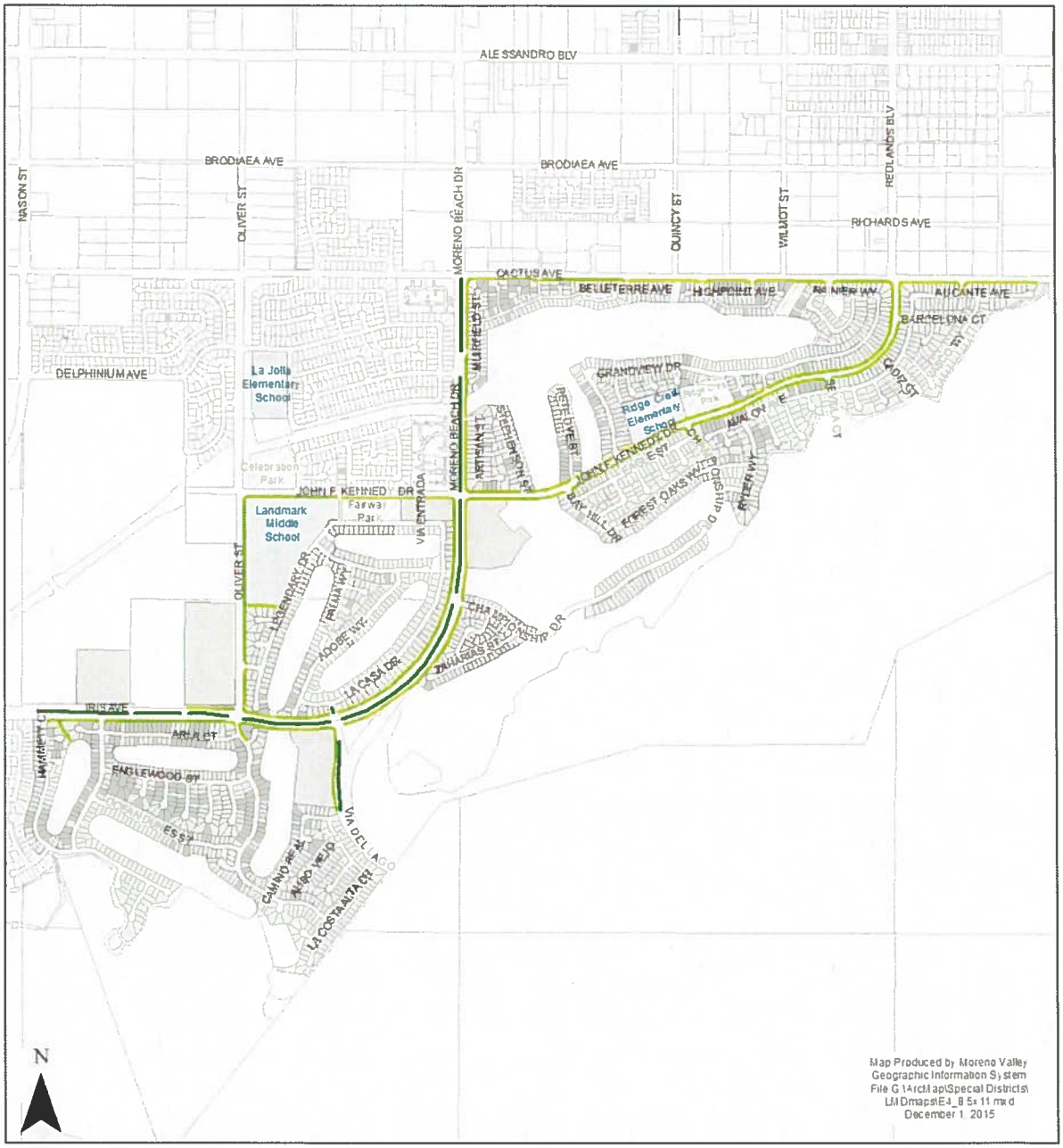
LANDSCAPE DISTRICTS - SOUTH
EXHIBIT A - Page 32 of 35

Moreno Valley Community Services District
Landscape Maintenance District No. 2014-02

Zone 04 (Moreno Valley Ranch - East)



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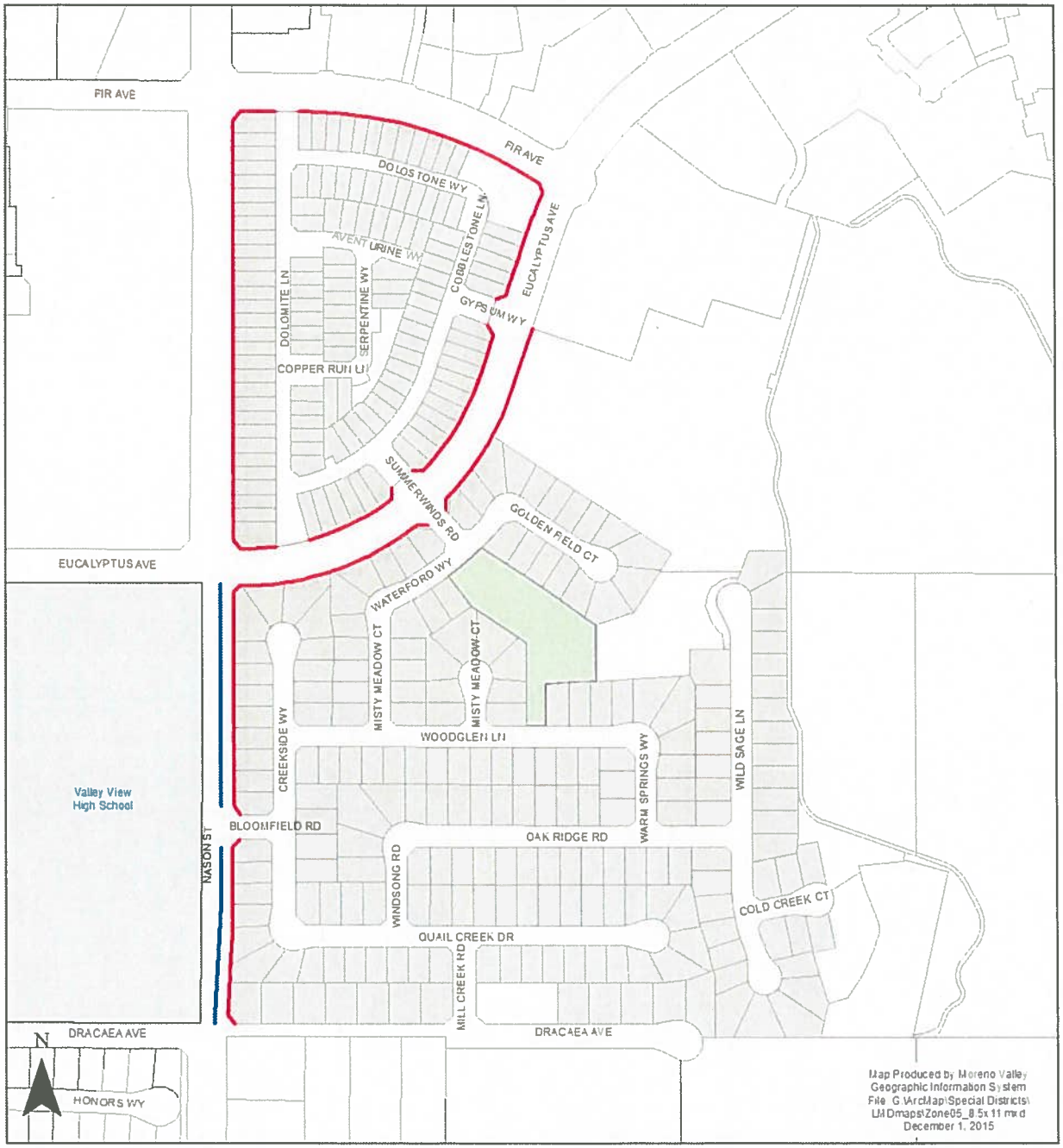
Moreno Valley Community Services District
Landscape Maintenance District No. 2014-02

Zone 05 (Stoneridge Ranch)



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Moreno Valley Community Services District
Landscape Maintenance District No. 2014-02

Zone 06 (Mahogany Fields)



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Landscaped Parkway
Landscaped Median
Not part of Zone 06 landscaping
Turf Area
Zone 06 Parcels

MORENO VALLEY
WHERE DREAMS SOAR

Moreno Valley Community Services District
Landscape Maintenance District No. 2014-02

Zone 07 (Celebration)



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- Landscaped Parkway
- Landscaped Median
- Landscaped Open Space
- Zone 07 Parcels

MORENO VALLEY
WHERE DREAMS SOAR

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LANDSCAPE DISTRICTS - SOUTH
EXHIBIT A - Page 36 of 35

CITY OF MORENO VALLEY

LINE F/OLIVER CHANNEL

- Culvert/Gabion
- 20ft Wide Low Flow Channel
- Parkway Planter - 1,568 sq ft
- Line F West - 379,744 sq ft
- Oliver Street Channel - 225,553 sq ft
- Line F East - 180,563 sq ft
- Channel irrigation to be maintained
- Existing Mulefat Scrub Habitat - 8,710 sq ft (leave undisturbed)

N

250 0 250 500 Feet

0 0.1 0.2 0.4 Miles

Map Produced by Moreno Valley Geographic Information System

Projection: NAD 83 State Plane California Zone 6 Feet
GIS Analyst: Special Districts
February 17, 2016

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MORENO VALLEY

EXHIBIT B: CITY RESPONSIBILITIES

RFP NO. 2016-009
LANDSCAPE DISTRICTS - SOUTH
MAINTENANCE OF PARKWAY AND MEDIAN
LANDSCAPING AND IRRIGATION

1. CONTRACT SUPERVISION

A. The Contract shall be administered on behalf of the Public Works Director of the City of Moreno Valley, or his/her delegated representative(s), hereinafter designated as "Director."

B. The Director will decide all questions which may arise as to the manner of performance and completion per schedule, acceptable fulfillment of the Contract by the Contractor, interpretation of the Specifications, and compensation to include completion of work by alternate sources.

2. IRRIGATION SYSTEMS

The City shall manage the operation of all automatically controlled irrigation systems, including but not limited to irrigation controller programming and scheduling. The Contractor shall monitor the operation of, and maintain said irrigation systems as required by the Director. The Contractor shall operate manually controlled irrigation systems as directed by City field staff.

3. UTILITIES

It shall be the City's duty to provide the utilities necessary for irrigation (i.e., water, electricity and communications) and to maintain their appurtenances (i.e., water and electrical meters and backflow devices). The City will pay the water, electricity, and communications costs used in the sites covered by this Contract. The Contractor shall report any interruption of these services for whatever reason immediately upon Contractor's observation of same to the Director.

4. RESTRICTED PESTICIDE MATERIALS PERMIT / USE CONSENT

A. The City shall maintain in full force and effect throughout the entire term of the Contract a valid Restricted Materials Permit issued by the Agricultural Commissioner of the County of Riverside on behalf of the California Department of Pesticide Regulation. The Contractor shall comply with all permit conditions that pertain to any of the pest control materials listed on said permit that may be used in the course of Contractor's operations under this Contract.

B. Director must give consent in writing prior to application of any Category I pesticide

EXHIBIT C: PAYMENT TERMS

RFP NO. 2016-009
LANDSCAPE AND IRRIGATION DISTRICTS - SOUTH
MAINTENANCE OF PARKWAY AND MEDIAN
LANDSCAPING AND IRRIGATION

1. CONTRACTOR'S COMPENSATION

A. The Contractor will obtain, and keep current during the term of this Agreement, the required City of Moreno Valley business license. Proof of a current City of Moreno Valley business license will be required prior to any payments by the City. Any invoice not paid because the proof of a current City of Moreno Valley business license has not been provided will not incur any fees, late charges, or other penalties. Complete instructions for obtaining a City of Moreno Valley business license are located at: http://www.moval.org/do_biz/biz-license.shtml

B. The Contractor will electronically submit an invoice to be paid monthly per site based upon successful performance of the maintenance services provided in accordance with an approved service schedule for each area/site and in compliance with the terms and provisions of this Contract. By the tenth of each month the Contractor shall submit to the Director detailed reports of the following: 1) maintenance performed, which must include the location, area or site of such maintenance, 2) greenwaste, 3) complaints received, 3) hazards noted, 4) chemicals used in the prior month and 5) an invoice for service, which list in detail the site, service performed and cost in accordance with the Contract price, which shall become the basis for payment. No payment(s) shall be made until the reports, listed herein, have been submitted and approved. At no time will the City pay for more service than have been satisfactorily completed and the City's determination of the amount due shall be final.

   The Contractor will submit all invoices electronically to Accounts Payable staff at AccountsPayable@moval.org. Accounts Payable questions can be directed to 951.413.3073.

   The Contractor will electronically submit copies of invoices and reports to the Special Districts Division at specialdistricts@moval.org. Calls may also be directed to the Special Districts Division at 951.413.3480..

C. Except where additional compensation is specifically provided for in this Contract, the City will pay the Contractor for all work (labor, material, supplies, equipment, etc.) performed under this Contract the total amount of **NINETEEN THOUSAND, ONE HUNDRED NINETY-ONE AND 84/100 DOLLARS ($19,191.84)** per month for the months of July 2016 through December 2016, and in the total amount of **EIGHTEEN THOUSAND, EIGHTY AND 76/100 DOLLARS ($18,080.76)** per month, for the months of January 2017 through June 2017, one (1) month in arrears, on the last day of the month. The total contract amount for twelve (12) months shall not exceed **TWO HUNDRED TWENTY-THREE THOUSAND, SIX HUNDRED THIRTY-FIVE AND 60/100**

DOLLARS (223,635.60), as outlined in the follow table, except as provided for herein Exhibit C, Section 2 below.

DISTRICT	MAINTENANCE AREA	SERVICE LEVEL	ESTIMATED SQ. FT.	FY 16/17 BASE COST PER SQ. FT.	FY 16/17 ANNUAL BASE COST[6]	FY16/17 TOTAL BASE COST
E-8	Existing Planter	Level1 (4 Weeks)	48,500	$ 0.0250	$ 14,550.00	
E-8	Oliver Street Channel[1]	Channel[2]	225,553	$ 0.0060	$ 16,239.84	$ 58,734.00
E-8	Line F East Channel[1]	Channel[2]	379,744	$ 0.0060	$ 27,342.00	
E-8	Line F East Planter[3]	Level1 (4 Weeks)	1,568	$ 0.0320	$ 602.16	
Zone 04	Planter[4]	Level 3 (12 Weeks)	555,541	$ 0.0045	$ 14,999.58	
Zone 04	Planter[5]	Level 5 (20 Weeks)	555,541	$ 0.0025	$ 8,333.10	$ 84,513.00
Zone 04	Turf	1 Time Every 2 Weeks	424,863	$ 0.0120	$ 61,180.32	
Zone 05	Planter	Level1 (4 Weeks)	98,392	$ 0.0142	$ 16,765.92	$ 16,765.92
Zone 06	Planter	Level1 (4 Weeks)	164,937	$ 0.0170	$ 33,647.16	$ 37,244.64
Zone 06	Turf	1 Time per Week	13,627	$ 0.0220	$ 3,597.48	
Zone 07	Planter	Level1 (4 Weeks)	44,591	$ 0.0250	$ 13,377.24	$ 26,378.04
Zone 07	Line F West Channel[1]	Channel[2]	180,563	$ 0.0060	$ 13,000.80	
						$ 223,635.60

[1] Service will begin when Channels and Parkway Planters in this table are accepted by the City. Amount proposed for this Zone will be adjusted based on date of actual acceptance.
[2] Service Levels do not apply to Channel Maintenance due to required timing of services. Refer to Exhibit A, Section 17 - Technical Provisions for Channel Maintenance and Exhibit E, Section V - Frequency of Services Table of the RFP for detailed information.
[3] Parkway Planter located adjacent to Line F East.
[4] Service provided for the months of July 2016 through December 2016
[5] Service provided for the months of January 2017 through June 2017
[6] Annual amounts rounded to create equal monthly installments.

D. The Contractor agrees that City payments will be received via Automated Clearing House (ACH) Direct Deposit and that the required ACH Authorization form will be completed prior to any payments by the City. Any invoice not paid because the completed ACH Authorization Form has not been provided will not incur any fees, late charges, or other penalties. The ACH Authorization Form is located at: http://www.moval.org/city_hall_forms.shtml#bf.

E. The minimum information required on all invoices includes:

1. Vendor Name, Mailing Address and Phone Number
2. Invoice Date
3. Vendor Invoice Number
4. City – provided Reference Number (Project Title)
5. Detailed work hours by class title (e.g. manager, technician or specialist), services performed, and rates, explicit portion of a contract amount or detailed billing information is sufficient to justify the invoice amount: single or lump sum amounts without detail are not acceptable.

F. The City shall pay the Contractor for all invoiced and authorized maintenance services within thirty (30) days of receipt of invoice for the same.

G. Should this Contract commence or terminate on other than the first day of a calendar month, the Contractor's compensation for that partial calendar month shall be prorated at the rate of 1/30 of the full month rate per day for the number of days during which the Contract is effective.

H. Reimbursement for Expenses. Contractor shall not be reimbursed for any expenses unless authorized in writing by the City

I. .Maintenance and Inspection. Contractor shall maintain complete and accurate records with respect to all costs and expenses incurred under this Agreement. All such records shall be clearly identifiable. Contractor shall allow a representative of City during normal business hours to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement. Contractor shall allow inspection of all work, data, documents, proceedings, and activities related to the Agreement for a period of three (3) years from the date of final payment under this Agreement.

2. ADDITIONAL WORK

A. During the term of this Contract the City may, at its discretion, authorize the Contractor to perform certain Additional Work as included in Exhibit C, Section 2, paragraph C, herein, in addition to the work set forth in Exhibit A, Section 1, General Provisions - Scope of Work.

If the City determines it to be in the City's best interest, said Additional work may include: Acts of God (i.e., earthquake damage, storm damage), or vandalism, theft, and acts or omissions by third parties.

Compensation for all such Additional Work shall be calculated either: at the prices set forth by the Contractor in Exhibit E, Schedule II, Sections C & D or at a price based on the Contractor's written estimate (lump sum, time and materials, or cost plus basis), as determined by the Director. Except as set forth herein Exhibit C, Section 2, paragraph B, below, the Contractor shall not perform any such Additional Work without first obtaining express written authorization from the City.

B. Notwithstanding the above requirement for prior written authorization, when a condition exists wherein there is imminent danger of injury to the public or damage to property, the City may verbally authorize the work to be performed upon receiving a verbal estimate from the Contractor. Within twenty-four (24) hours after receiving a verbal authorization, the Contractor must submit a written estimate to the City for written approval. Whenever immediate action is required to prevent impending injury, death, or property damage to the facilities being maintained, the City may, after reasonable attempt to notify the Contractor, cause such action to be taken by the City's work force.

C. The Contractor shall maintain as Additional Work, at a unit price comparable to landscape areas described herein, additional landscape areas that the City may add to this Contract. In the event that notification is made, at other than the beginning of a monthly period, the unit cost as set forth by Contractor in Exhibit

E, Schedule II, Section D shall be prorated from the day the Contractor commences work on the additional areas.

D. Routine repairs to project irrigation system(s) shall be considered Additional Work to the extent that the Contractor shall charge only for materials used to perform said repairs at Contractor's cost plus a percentage of that cost, as set forth in Exhibit E, Schedule II, Section D. For the purposes of this Contract, routine irrigation repairs are defined as replacement of existing sprinklers or sprinkler components, and/or non-pressurized pipe, and/or fittings ("lateral lines") that have been rendered inoperable due to: 1) normal "wear and tear", and 2) vandalism or theft (which includes acts or omissions by third parties).

E. Except as specifically approved by subsequent action of the City Council and/or District Board of Directors, the Director may not authorize Additional Work pursuant to paragraphs A, B, and C above in excess of the cumulative total of **ONE HUNDRED TWENTY-ONE THOUSAND, NINE HUNDRED SIXTY AND 00/100 DOLLARS ($121,960.00)** for each contract year during the term of this Contract.

DISTRICT	MAINTENANCE AREA	ESTIMATED SQ. FT.	FY 16/17 ADDITIONAL WORK COST
E-8	Existing Planter	48,500	$ 14,100.00
E-8	Oliver Street Channel[1]	225,553	$ 30,000.00
E-8	Line F East Channel[1]	379,744	
E-8	Line F East Planter[3]	1,568	$ -
Zone 04	Planter	555,541	$ 28,620.00
Zone 04	Turf	424,863	
Zone 05	Planter	98,392	$ 17,540.00
Zone 06	Planter	164,937	$ 13,000.00
Zone 06	Turf	13,627	
Zone 07	Planter	44,591	$ 6,800.00
Zone 07	Line F West Channel[1]	180,563	$ 11,900.00
			$ 121,960.00

[1] Service will begin when Channels and Parkway Planters in this table are accepted by the City. Amount proposed for this Zone will be adjusted based on date of actual acceptance.

[2] Service Levels do not apply to Channel Maintenance due to required timing of services. Refer to Exhibit A, Section 17 - Technical Provisions for Channel Maintenance and Exhibit E, Section V - Frequency of Services Table of the RFP for detailed information.

[3] Parkway Planter located adjacent to Line F East.

3. PAYMENT DEDUCTIONS

The City may deduct payment to such extent as may be necessary to protect the City from loss due to:

A. Work required in the General or Technical Provisions which is: not performed, not performed to the standards set forth therein, not performed at or within the time(s) specified therein, or is incomplete;

B. Claims filed or reasonable evidence indicating probable filing of claims by laborers, materialmen, subcontractors, or third parties.

4. NON-PERFORMANCE PENALTIES

The Contractor may become liable for payment of non-performance penalties for failure to: provide adequate communications; provide adequate work area safety; complete "Specialty" operations in a timely manner as set forth in the General Provisions; submit notifications or reports required by the Contract, or General Provisions at the intervals and/or frequencies set forth therein, or; perform work as required by the General Provisions at the intervals and/or frequencies as set forth therein, or as set forth in Contractor's approved work schedule, or as directed by the City. For each of the categories set forth hereinabove, the penal sum of $100.00 (one hundred dollars) per working day will be assessed for each working day the deficiencies remain uncorrected.

If non-performance penalties are to be assessed, the Contractor will be notified immediately by written email, facsimile transmission, letter, or by telephone.

The Contractor will not be assessed non-performance penalties for delays caused by the City or by the owner of a utility to provide for the removal or relocation of utility facilities.

5. EXCESSIVE UTILITY USAGE

Contractor shall pay for all excessive utility usage due to Contractor's failure to monitor irrigation system malfunctions or unauthorized increases in the frequency of irrigation. The excess cost will be determined by comparing the current usage with the historical usage for the same time period. The excess cost factor, to be deducted from the payments to the Contractor, will be presented by the Director to the Contractor prior to actual deduction by the City to allow for explanations.

EXHIBIT D: TERM OF CONTRACT

RFP NO. 2016-009
LANDSCAPE DISTRICTS - SOUTH
MAINTENANCE OF PARKWAY AND MEDIAN
LANDSCAPING AND IRRIGATION

1. TERM OF CONTRACT

A. Following approval by all parties, the Contract will commence on July 1, 2016, and shall terminate June 30, 2017 (12) months thereafter.

B. At the expiration of its term, the Contract may be extended for up to four (4) additional twelve (12) month periods with the concurrence of all parties. Written notice of the City's intent to invoke this subsection of the Contract shall be given to the Contractor at least thirty (30) days prior to the expiration of the initial term of the Contract or any extension thereof.

C. In considering the option to extend the Contract, as set forth in paragraph B above, the City shall determine the following:

That the Contractor's performance during the preceding twelve months has been satisfactory, and;

That any request for increase of Contractor's compensation is based on an annual inflation adjustment based on the percentage increase calculated for the previous calendar year in the Los Angeles-Riverside-Orange County Regional Consumer Price Index for All Urban Consumers, as published by the Department of Labor's Bureau of Labor Statistics.

D. At the expiration of its term, and with the concurrence of all parties, the Contract may be extended for up to three (3) additional periods of thirty (30) days each, subject to all terms and conditions in effect during the current term of the Contract. Written notice of the City's intent to invoke this subsection of the Contract shall be given to the Contractor at least fifteen (15) days prior to the expiration of the initial term of this Contract, or any extensions thereof.

E. It should be noted that multiyear contracts may be continued each fiscal year only after funding appropriations and program approvals have been granted by the City Council of the City of Moreno Valley and the City Council acting in the capacity as President and Members of the Board of Directors of the Moreno Valley Community Services District. In the event that the City Council and/or the City Council acting in the capacity as President and Members of the Board of Directors for the Moreno Valley Community Services District does not grant necessary funding appropriations and/or program approval, the affected multiyear contract becomes null and void effective July 1st of the fiscal year for which such approvals have been denied.

EXHIBIT E: PROPOSAL SUBMITTAL DOCUMENTS

RFP NO. 2016-009
LANDSCAPE DISTRICTS - SOUTH
MAINTENANCE OF PARKWAY AND MEDIAN
LANDSCAPING AND IRRIGATION

PROMONTORY PARK (E-8)
MORENO VALLEY RANCH EAST (Zone 04 of LMD No. 2014-02)
STONERIDGE RANCH (Zone 05 of LMD No. 2014-02)
MAHOGANY FIELDS (Zone 06 of LMD No. 2014-02)
CELEBRATION (Zone 07 of LMD No. 2014-02)
CHANNELS AND CHANNEL PARKWAY PLANTERS

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

Proposal for
City of Moreno Valley
Landscape Districts – South
Maintenance of Parkway and
Median Landscape and Irrigation
RFP No. 2016-009

Due Date: March 21, 2016
Time: 10:00 am

Submitted By:

merchants
landscape services, inc.

8847 W. 9th St.
Rancho Cucamonga, CA. 91730
800-645-4881
Fax 909-981-1029
Contact
Patrick Healy
patrick@merchantslandscape.com

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

merchants
landscape services, inc.

COMPANY PROFILE

Merchants Landscape Services is a full service landscape maintenance contractor, which currently operates Four Regional offices in Southern California.

Merchants Landscape Services corporate headquarters is located in Santa Ana. Merchants Landscape is the largest provider of municipal landscape maintenance in Southern California. This growth was accomplished without a marketing department or acquisitions. MLS's corporate philosophy is based on service and client retention. Our Sun Valley branch service's LA and Ventura counties, the Santa Ana and Irvine branch's Orange County, the Rancho Cucamonga branch service's Riverside and San Bernardino counties. Merchants Landscape Services has over 400 employees and maintains a fleet of more than 200 trucks and trailers. Company annual sales will exceed $20,000,000.00 this year.

We have hundreds of accounts encompassing a wide range of maintenance clients. Included are large regional Hospitals, school districts, and County contracts. However, nearly 95% of the company's revenue is generated from municipality landscape maintenance contracts. Merchants Landscape Services is currently servicing the cities of:

Mission Viejo	Moreno Valley	Ontario
Irvine	Huntington Beach	Corona
Orange	Pasadena	Manhattan Beach
Yorba Linda	Chino	Agoura Hills
Sierra Madre	County of Orange	Hermosa Beach
Buena Park	Long Beach	Fountain Valley
Santa Ana		

Merchants welcomes any interested future clients to contact any of our current clients regarding Merchants services.

Merchants Landscape Services is 1 of only 2 landscape maintenance companies in California that are self-insured for workers compensation insurance. Allowing Merchants to maintain a lower cost of operation and provide our clients with very competitive pricing.

The contact lead person for the City of Moreno Valley will be Patrick Healy, patrick@merchantslandscape.com. The office is located at 8847 W. 9th Street, Rancho Cucamonga, CA. 91730; Office # (800) 645-4881, Fax # (909) 981-1029

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

RFP SUBMITTAL 'CHECK-OFF' LIST

RFP NO. 2016-009
LANDSCAPE DISTRICTS - SOUTH
MAINTENANCE OF PARKWAY AND MEDIAN
LANDSCAPING AND IRRIGATION

The following check list (together with the necessary, and where required, notarized original documentations) must be completed, signed and included for the RFP to be considered responsive:

☐ INCLUDE THIS COMPLETED SIGNED 'CHECK-OFF' LIST WITH SCHEDULE I:

Merchants Landscape Services, Inc.
Company Name (Please print)

1510 S. Lyon St., Santa Ana, CA. 92705
Company Address (Please print)

Authorized Signature

1.800.645.4881
Company Phone Number

mark@merchantslandscape.com
Email Address of Submitter

☑ **SCHEDULE I - VENDOR INFORMATION** *(Completed) along with the following:*
- ☑ MINIMUM OF THREE REFERENCES
- ☑ PROPOSED FACILITIES AND EQUIPMENT SCHEDULE
- ☑ PROPOSED PROJECT WORK SCHEDULES
  - ☑ MONTHLY SCHEDULE SHEETS for each Area
  - ☑ ANNUAL SCHEDULE SHEETS for each Area
- ☑ FREQUENCY OF SERVICE TABLE *(signed acknowledging min. frequencies per service level)*
- ☑ PROPOSED ANNUAL MATERIAL SCHEDULE
- ☑ COMMUNICATIONS, TRAFFIC SAFETY, AND GREENWASTE RECYCLING SHEETS
- ☑ LIST OF DESIGNATED SUBCONTRACTORS
- ☑ CERTIFICATION OF NON-DISCRIMINATION
- ☑ PROPOSAL AFFIRMATION

☑ **SCHEDULE II - BID SCHEDULE** *(Completed, signed and dated) along with the following:*
- ☑ ADDITIONAL WORK PRICE LIST *(signed and dated)*
- ☑ CONTRACT PROPOSAL SHEET *(completed, signed, & corporate seal, if incorporated)*
- ☑ AFFIRMATION OF PROPOSAL GUARANTEE
- ☑ PROPOSAL SURETY BOND, CASHIER'S CHECK OR CERTIFIED CHECK
  A PROPOSAL SURETY BOND MUST INCLUDE NOTARY CERTIFICATES AND NOTARIZED SIGNATURES FOR BOTH ATTORNEY-IN-FACT AND PRINCIPAL(S).
- ☑ NON-COLLUSION AFFIDAVIT *(signed and notarized)*

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

RFP NO. 2016-009
LANDSCAPE DISTRICTS - SOUTH
MAINTENANCE OF PARKWAY AND MEDIAN
LANDSCAPING AND IRRIGATION

ATTACH ADDITIONAL SHEETS AS NECESSARY FOR COMPLETE RESPONSES

I: SCHEDULE I – VENDOR INFORMATION

A. Company Name: Merchants Landscape Services, Inc.

TYPE
- Sole proprietor _____
- Partnership _____
- Corporation X

B. Company Address (Street) 1510 S. Lyon St.

(City, State, Zip) Santa Ana, CA. 92705

C. Company Address (Mailing) Same as above

(City, State, Zip) _____

D. Business Phone Number(with area code) 800.645.4881

E. Satellite Office Address (if applicable):
8847 W. 9th St., Rancho Cucamonga, CA. 91730

F. Satellite Office Phone Number 800.645.4881

G. Contractor's Licensing Information:

1. License number/Classification/Name Style: 765658 C27
2. Number of Years Operating Under the Above License Name Style: 17 years
3. License Expiration Date: 7-31-17
4. Current License Status: Active
5. Prior actions against this License? Yes / (No)
6. If Yes, list the citation type and how it was resolved: _____

H. .Company's Federal Identification No.: 95-4725606

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

I. Name and Title(s) of Company Officers:

Mark Brower, President
Theodore Haas, Chairman

J. Number of years the company has performed landscape maintenances services: 17 years

K. Number of years the company has performed landscape maintenances services for public agencies: 12 Years

L. Current Landscape Maintenance Operations

The City recognizes that the information provided in answer to this question is proprietary in nature and therefore the City will keep this information confidential to the extent permitted by law.

Total number of landscape maintenance contracts: 27
Percentage of total contracts with public agencies: 100%
Total dollar value of landscape maintenance contracts: $21 Million/yr.

1. Number of employees committed to landscape maintenance operations

Supervisors: 22	Average wage scale: $ 65,000 /yr *
Technicians: 35	Average wage scale: $ 35.00 /Hr.*
Foremen: 100	Average wage scale: $ 28.00 /Hr.*
Laborers: 220	Average wage scale: $ 21.00 /Hr.*

*Use the fully burdened rate (i.e., taxes, insurance, benefits, OH &P) - This is a prevailing wage project.

2. Type & number of vehicles & power equipment committed to landscape maintenance operations:

SEE ATTACHED INVENTORY

A. Motor vehicles:
- Type: Number:
- Type: Number:
- Type: Number:
- Type: Number:

B. Power equipment
- Type: Number:
- Type: Number:
- Type: Number:
- Type: Number:

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

MERCHANTS LANDSCAPE SERVICES, INC.

References

CITY OF IRVINE
P.O. Box 19575
Irvine, CA. 92623
Contact: Ariel De La Paz
E-Mail: adelapaz@ci.irvine.ca.us
Phone: (949) 724-7619
Project Completion: On going to 2018
Project size in $: $10,000,000/year
Medians, Parkways, City Parks, Sport Parks, Villages of Westpark, Woodbridge, Turtle Rock, Great Park, Northwoods & Woodbury
800 Acres

CITY OF BUENA PARK
6688 Beach Blvd.
Buena Park, CA. 90621
Contact: Margaret Riley
E-Mail: mriley@buenapark.com
Phone: (714) 562-3850
Project Completion: On going to 2018
Project Size in $600,000.00
Parks and Medians
50 Acres

CITY OF HUNTINGTON BEACH
17581 Gothard St.
Huntington Beach, CA. 92647
Contact: David De La Torre
Phone: (714) 375-5124
Project Completion: On going to 2016
Project Size in $: $800,000/yr.
90 Acres

CITY OF MORENO VALLEY
14325 Frederick St., Ste: 9
Moreno Valley, CA. 92552
Contact: Dan Monto
E-Mail: danielm@moval.org
Phone: (951) 413-3492
Project Completion: On going to 2016
Project size in $260,000.00/year
Maintenance of Parkway & Medians

CITY OF SANTA ANA
20 Civic Center Plaza
Santa Ana, CA. 92702
Phone: (714) 836-0880
Contact: Mike Lopez
Project Completion: On going to 2018
Project Size in $: 720,000.00/year
Parks – 60 Acres

CITY OF CHINO
13220 Central Avenue
Chino, CA. 91710
Contact: Bob Bodis
E-Mail: BBodis@cityofchino.org
Phone: (909) 573-8762
Project Completion: On going to 2018
Project size in $:450,000/yr.
Landscape Maintenance
45 Acres

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

III: SCHEDULE I – PROPOSED FACILITIES AND EQUIPMENT SCHEDULE

A. **Facilities** – List the facility(ies) location(s) and/or address(es) where work crews and equipment will be dispatched. Use additional sheets as necessary to provide a full and comprehensive response.

8847 W. 9th St.
Rancho Cucamonga, CA. 91730

15507 Sunview Circle
Riverside, CA. 92504

B. List the equipment, motor vehicles, and tools, in the areas below that will be furnished to execute work tasks specified in the Agreement and General Provisions. Indicate with an (S) any listed equipment to be shared with another contract/project. Use additional sheets as necessary to provide a full and comprehensive response.

1. Equipment:

See Below

2. Motor Vehicles:

1 - F150 with trailer
1 - Ranger Irrigation truck
1 - F350

3. Turf Maintenance Power Equipment/Tools:

2 - 72" Lazer

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

4. **Tree, Shrub, Ground Cover Trimming/Pruning Equipment/Tools:**
(List both powered and hand equipment/tools)

5 - Hedge Trimmers
5 - Blowers
5 - String Trimmers
2 - Lopper
10 - Hand Tool

5. **Irrigation System Maintenance Equipment:**
(List both powered and hand equipment/tools)

Universal Remote
Wire Tracker
All necessary hand tools

6. **Fertilizer Application Equipment:**
(List both powered and hand equipment/tools)

Earthway rotary spreaders
Scotts Accu Pro 2000
Lesco commercial plus 2 speed power spreader
Lesco walk behind spreader

7. **Pesticide Application Equipment:**
(List both powered and hand equipment/tools)

4 gal. Lesco backpack sprayer
Lesco commercial plus 2 speed power sprayer
Lesco commercial plus power sprayers 50 gal. each

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

IV: SCHEDULE I –PROPOSED PROJECT WORK SCHEDULES

Following this page are blank Monthly and Annual Schedule Sheets. There is one monthly and one annual schedule sheet for each area identified in this Contract.

Proposers are to complete these schedule sheets by writing in their proposed schedule for performing the services as described in Exhibit A. For services listed in Exhibit A - Technical Provisions, Sections 17, A, C, D, E; G; 18 B, C, D, E; 19 A and B; and 20 C. 1 (a), refer to the FREQUENCY OF SERVICES TABLE located in Exhibit E, Schedule I, Section V.

When referencing the Frequency of Services Table to prepare the Monthly and Annual Schedule Sheets reference should only be made to the current service level for each area, as follows:

1. E-8, Zone 05, Zone 06, and Zone 07 Service Schedule Level 1 (4 week) column.

2. Zone 04 Service Schedule Level 3 (12 Week) column.

Within 30 days after contract execution, the awarded Contractor will provide the City mapped work schedules for areas: E-8; Zone 04, Zone 05, Zone 06 and Zone 07 of LMD No. 2014-02; and, the Oliver Street, Line F East, and Line F West Channels and channel parkway planters.

A. Monthly Schedule Sheet

1. List all tasks specified to be performed on a weekly or monthly basis for areas E-8; Zone 04, Zone 05, Zone 06 and Zone 07 of LMD No. 2014-02; and, the Oliver Street, Line F East, and Line F West Channels and channel parkway planters in the box corresponding to the day of the week/month the work is proposed to be performed.

2. Be sure to include administrative tasks such as report submittals, meetings, etc.

3. Fill in the schedule sheet for the entire month. Schedule sheets that are not completed for the entire month will be considered to be non-responsive.

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

B. Annual Schedule Sheet

1. List all tasks specified to be performed for areas E-8; Zone 04, Zone 05, Zone 06 and Zone 07 of LMD No. 2014-02; and, the Oliver Street, Line F East, and Line F West Channels and channel parkway planters at intervals greater than one (1) month in the box corresponding to the month(s) of the year in which they are either so specified, or if not specified, the month(s) in which the work is proposed to be performed.

2. Be sure to include any administrative tasks such as report submittals, meetings, etc.

3. Fill in the schedule sheet for the entire year. Schedule sheets that are not completed for the entire year will be considered to be non-responsive.

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

Merchants Landscape Services
8847 W. 9th Street
Rancho Cucamonga, CA 91730
California Contractor's License
#765658

MERCHANTS LANDSCAPE SERVICES, INC.
C CITY OF MORENO VALLEY
ANNUAL MAINTENANCE SCHEDULE
E- 8 Level 1

JAN.	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Mow & edge turf weekly	Mow & edge turf weekly Fertilize	Mow & edge turf weekly	Mow & edge turf weekly Aerate	Mow & edge turf weekly	Mow & edge turf weekly Fertilize	Mow & edge turf weekly	Mow & edge turf weekly	Mow & edge turf weekly	Mow & edge turf weekly Aerate Fertilize	Mow & edge turf weekly	Mow & edge turf weekly
Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly pre-emergence Weed Control	Trim shrubs ground cover, Vines & trees Monthly Fertilize Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Fertilize Weed Control	Trim shrubs ground cover, Vines & trees Monthly pre-emergent Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control
Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly
Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly
Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month
Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly
Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report
OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week

MERCHANTS LANDSCAPE SERVICES, INC.
C CITY OF MORENO VALLEY
ANNUAL MAINTENANCE SCHEDULE
Zone 5 Level 1

Merchants Landscape Services
8847 W. 9th Street
Rancho Cucamonga, CA 91730
California Contractor's License
#765658

JAN.	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Mow & edge turf weekly	Mow & edge turf weekly Fertilize	Mow & edge turf weekly	Mow & edge turf weekly Aerate	Mow & edge turf weekly	Mow & edge turf weekly Fertilize	Mow & edge turf weekly	Mow & edge turf weekly	Mow & edge turf weekly	Mow & edge turf weekly Aerate Fertilize	Mow & edge turf weekly	Mow & edge turf weekly
Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly pre-emergence Weed Control	Trim shrubs ground cover, Vines & trees Monthly Fertilize Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Fertilize Weed Control	Trim shrubs ground cover, Vines & trees Monthly pre-emergent Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control
Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly
Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly
Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month
Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly
Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report
OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week

MERCHANTS LANDSCAPE SERVICES, INC.
C CITY OF MORENO VALLEY
ANNUAL MAINTENANCE SCHEDULE
Zone 6 Level 1

Merchants Landscape Services
8847 W. 9th Street
Rancho Cucamonga, CA 91730
California Contractor's License
#765668

JAN.	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Mow & edge turf weekly	Mow & edge turf weekly Fertilize	Mow & edge turf weekly	Mow & edge turf weekly Aerate	Mow & edge turf weekly	Mow & edge turf weekly Fertilize	Mow & edge turf weekly	Mow & edge turf weekly	Mow & edge turf weekly	Mow & edge turf weekly Aerate Fertilize	Mow & edge turf weekly	Mow & edge turf weekly
Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly pre-emergence Weed Control	Trim shrubs ground cover, Vines & trees Monthly Fertilize Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Fertilize Weed Control	Trim shrubs ground cover, Vines & trees Monthly pre-emergent Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control
Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly
Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly
Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month
Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly
Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report
OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week

Merchants Landscape Services
8847 W. 9th Street
Rancho Cucamonga, CA 91730
California Contractor's License
#766558

MERCHANTS LANDSCAPE SERVICES, INC.
C CITY OF MORENO VALLEY
ANNUAL MAINTENANCE SCHEDULE
Zone 7 Level 1

JAN.	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Mow & edge turf weekly	Mow & edge turf weekly Fertilize	Mow & edge turf weekly	Mow & edge turf weekly Aerate	Mow & edge turf weekly	Mow & edge turf weekly Fertilize	Mow & edge turf weekly	Mow & edge turf weekly	Mow & edge turf weekly	Mow & edge turf weekly Aerate Fertilize	Mow & edge turf weekly	Mow & edge turf weekly
Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly pre-emergence Weed Control	Trim shrubs ground cover, Vines & trees Monthly Fertilize Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Fertilize Weed Control	Trim shrubs ground cover, Vines & trees Monthly pre-emergent Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control	Trim shrubs ground cover, Vines & trees Monthly Weed Control
Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly
Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly	Debris & Litter Removal weekly
Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month
Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly
Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report
OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week

Merchants Landscape Services
8847 W. 9th Street
Rancho Cucamonga, CA 91730
California Contractor's License
#765658

MERCHANTS LANDSCAPE SERVICES, INC.
C CITY OF MORENO VALLEY
ANNUAL MAINTENANCE SCHEDULE
Zone 4 LEVEL 3

JAN.	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Mow & edge turf bi-weekly	Mow & edge turf bi-weekly Fertilize	Mow & edge turf bi-weekly	Mow & edge turf bi-weekly Aerate	Mow & edge turf bi-weekly	Mow & edge turf bi-weekly Fertilize	Mow & edge turf bi-weekly	Mow & edge turf bi-weekly	Mow & edge turf bi-weekly	Mow & edge turf bi-weekly Fertilize	Mow & edge turf bi-weekly	Mow & edge turf bi-weekly
Trim shrubs ground cover, Vines & trees 4x per yer Weed Control 4x per yer	Trim shrubs ground cover, Vines & trees 4x per yer Weed Control 4x per yer	Trim shrubs ground cover, Vines & trees 4x per yer Weed Control 4x per yer	Trim shrubs ground cover, Vines & trees 4x per yer Pre-emergent Weed Control 4x per yer	Trim shrubs ground cover, Vines & trees 4x per yer Fertilize Weed Control 4x per yer	Trim shrubs ground cover, Vines & trees 4x per yer Weed Control 4x per yer	Trim shrubs ground cover, Vines & trees 4x per yer Weed Control 4x per yer	Trim shrubs ground cover, Vines & trees 4x per yer Weed Control 4x per yer	Trim shrubs ground cover, Vines & trees 4x per yer Weed Control 4x per yer	Trim shrubs ground cover, Vines & trees 4x per yer Pre-emergent Weed Control 4x per yer	Trim shrubs ground cover, Vines & trees 4x per yer Weed Control 4x per yer	Trim shrubs ground cover, Vines & trees 4x per yer Weed Control 4x per yer
Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly
Litter removal 2 days per month	Litter removal 2 days per month	Litter removal 2 days per month	Litter removal 2 days per month	Litter removal 2 days per month	Litter removal 2 days per month	Litter removal 2 days per month	Litter removal 2 days per month	Litter removal 2 days per month	Litter removal 2 days per month	Litter removal 2 days per month	Litter removal 2 days per month
Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month
Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly
Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report
OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week

MERCHANTS LANDSCAPE SERVICES, INC.
C CITY OF MORENO VALLEY
ANNUAL MAINTENANCE SCHEDULE
LINE F EAST CHANNEL

Merchants Landscape Services
8847 W. 9th Street
Rancho Cucamonga, CA 91730
California Contractor's License
#765658

JAN.	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
									Vegetative thinning Annually		
		Weed Control & Pesticide Quarterly			Weed Control & Pesticide Quarterly			Weed Control & Pesticide Quarterly			Weed Control & Pesticide Quarterly
Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly
Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly
Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month
Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly
Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report
OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week

MERCHANTS LANDSCAPE SERVICES, INC.
C CITY OF MORENO VALLEY
ANNUAL MAINTENANCE SCHEDULE
LINE F WEST CHANNEL

Merchants Landscape Services
8847 W. 9th Street
Rancho Cucamonga, CA 91730
California Contractor's License
#765658

JAN.	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
									Vegetative thinning Annually		
		Weed Control & Pesticide Quarterly			Weed Control & Pesticide Quarterly			Weed Control & Pesticide Quarterly			Weed Control & Pesticide Quarterly
Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly
Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly
Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month
Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly
Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report
OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week

MERCHANTS LANDSCAPE SERVICES, INC.
C CITY OF MORENO VALLEY
ANNUAL MAINTENANCE SCHEDULE
LINE F EAST PARKWAY PLANTER

Merchants Landscape Services
8847 W. 9th Street
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California Contractor's License
#765658

JAN.	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
									Vegetative thinning Annually		
		Weed Control & Pesticide Quarterly			Weed Control & Pesticide Quarterly			Weed Control & Pesticide Quarterly			Weed Control & Pesticide Quarterly
Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly	Irrigation System check Weekly
Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly	Debris & Litter Removal monthly
Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month	Monthly report form due 10th of each month
Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly	Area Supervisor to inspect job site weekly
Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report	Supply district with greenwaste report
OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week	OSHA Safety meetings everyother week

City of Moreno Valley
Landscape Maintenance Crew

E-8

Monday	Tuesdays	Wednesdays	Thursday	Fridays	Legend
			E-8 Detail Crew		Week 1
			Area 1		
			E-8 Detail Crew		Week 2
			Area 2		
			E-8 Detail Crew		Week 3
			Area 3		
			E-8 Detail Crew		Week 4
			Area 3		

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

City of Moreno Valley
Landscape Maintenance Crew

Zone 4 LMD

Monday	*Tuesdays*	*Wednesdays*	*Thursday*	*Fridays*	*Legend*
Zone 4 LMD Detail Crew	Zone 4 LMD Detail Crew	Zone 4 LMD Detail Crew	Zone 4 LMD Detail Crew		Week 1
Area 1	Area 1	Area 2	Area 2		
Zone 4 LMD Mow and Edge	Zone 4 LMD Mow and Edge	Zone 4 LMD Mow and Edge	Zone 4 LMD Detail Crew		Week 2
Iris Avenue	Moreno Beach Blvd	Moreno Beach Blvd	Extra Day		
Zone 4 LMD Detail Crew	Zone 4 LMD Detail Crew	Zone 4 LMD Detail Crew	Zone 4 LMD Detail Crew		Week 3
Area 3	Area 3	Area 4	Area 4		
Zone 4 LMD Mow and Edge	Zone 4 LMD Mow and Edge	Zone 4 LMD Mow and Edge	Zone 4 LMD Detail Crew		Week 4
Iris Avenue	Moreno Beach Blvd	Moreno Beach Blvd	Extra Day		

City of Moreno Valley
Landscape Maintenance Crew

Oliver Street Chann

Monday	Tuesdays	Wednesdays	Thursday	Fridays	Legend
Debris/Litter removal					Week 1
Irrigation check					
					Week 2
Irrigation check					
					Week 3
Irrigation check					
					Week 4
Irrigation check					

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

V: SCHEDULE I - FREQUENCY OF SERVICES TABLE

A. PARKWAYS, MEDIANS, AND CHANNELS

Service Type	Service Schedule Level 1	Service Schedule Level 2	Service Schedule Level 3	Service Schedule Level 4	Service Schedule Level 5	Service Schedule Level 6
17.C. Shrub Care						
Prune/trim	Every 4 Weeks	Every 8 Weeks	Every 12 Weeks	Every 16 Weeks or as directed by City staff to remove ROW encroachments	Every 20 Weeks or as directed by City staff to remove ROW encroachments	Every 24 Weeks or as directed by City staff to remove ROW encroachments
17.D. Ground Cover						
Prune/trim	Every 4 Weeks	Every 8 Weeks	Every 12 Weeks	Every 16 Weeks or as directed by City staff to remove ROW encroachments	Every 20 Weeks or as directed by City staff to remove ROW encroachments	Every 24 Weeks or as directed by City staff to remove ROW encroachments
17.E. Weed Control						
Weed control	Every 4 Weeks	Every 8 Weeks	Every 12 Weeks	Every 16 Weeks or as directed by City staff to remove ROW encroachments	Every 20 Weeks or as directed by City staff to remove ROW encroachments	Every 24 Weeks or as directed by City staff to remove ROW encroachments
17.F. 2. Irrigation	Weekly	Weekly	Weekly	Monthly	Monthly	Monthly
17.G. Debris/Litter Debris/Litter removal	Weekly	Weekly	Every other week	Monthly	Every Other Month	Quarterly
19.A. Turf Fertilization	3x's per year (Feb., June & Oct.)	3x's per year (Feb., June & Oct.)	3x's per year (Feb., June & Oct.)	2x's per year (Feb. & Oct.)	1x per year (Feb.)	N/A
19.B. Shrub/Ground Cover Fertilization	2x's per year (April & Sept.)	2x's per year (April & Sept.)	1x per year (April)	1x per year (April)	1x per year (April)	N/A
20. C. 1. (a) Pre-Emergent Ground covers, shrubs & trees - Pesticide usage criteria[1]	2x's per year (Spring & Fall)	2x's per year (Spring & Fall)	2x's per year (Spring & Fall)	1x per year (Spring)	1x per year (Spring)	N/A
Exhibits G & I Reports	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly
Exhibit H Report	Weekly	Weekly	Weekly	Weekly	Weekly	Weekly

All Landscape and Irrigation Zones		
Service Type	Frequency of Service	Frequency of Service
17.A. Turf Care		
Mow/edge/trim	1 Time per Week	1 Time Every 2 Weeks
Aeration	Bi-annually (Spring & Fall)	Bi-annually (Spring & Fall)

Channels	
Service Type	Service Schedule
18.B. Vegetative Thinning[1]	Annual
18.C. Weed Abatement/Pesticide[1]	Quarterly
18.D. Irrigation	Weekly
18.E. Debris/Litter Removal	Monthly
Exhibits G & I Reports	Monthly
Exhibit H Report	Monthly

[1] Specification of month to be approved by Director in advance of work being performed.

(Sign Here) 6/30/16 (Date)

By signing, I hereby acknowledge review of the aforementioned Frequency of Services and have incorporated reference of the frequencies in the Proposal Schedule, including the Optional Proposal Schedule, and the proposed monthly and annual schedule sheets for the services to be provided consistent with the terms of this Contract.

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

VI: SCHEDULE I – PROPOSED ANNUAL MATERIAL SCHEDULE

A. Fertilizers:

List the fertilizers to be furnished to execute work tasks specified in Exhibit A, Section18, Technical Provisions – Fertilizer. Specify the type (analysis/brand name), estimated amount of each type to be supplied annually, and estimated annual cost for each type (include applicable sales tax, overhead, and mark-up). Use additional sheets as necessary to provide a full and comprehensive response.

Type	Estimated Annual Amount	Estimated Annual Cost
23-5-10	260 Bags-50 lb.	$5,500.00

B. Pesticides:

List pesticides to be furnished to execute work tasks specified in Exhibit A, Section 19, Technical Provisions – Pesticide Use. Specify the type (i.e., pre-emergent herbicide, rodent/snail bait, insecticide, etc.), the brand name, estimated amount of each type/brand to be supplied annually, and the estimated annual cost for each type/brand (include applicable sales tax, overhead, and mark-up). Use additional sheets as necessary to provide a full and comprehensive response.

Type	Estimated Annual Amount	Estimated Annual Cost
Snap shot-pre-emergent	250 lbs.	$500.00
Fusilade - Herbicide	10 pint	$650.00
Fumitoxin-Gopher Control	5 flask	$130.00
M-pede-insecticide	12 gal.	$ 36.00

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

VII: SCHEDULE I –COMMUNICATIONS, TRAFFIC SAFETY, & GREENWASTE RECYCLING

A. Communications:

Exhibit A, Section 3 General Provisions – Functions and Responsibilities requires the selected Contractor possess and maintain an effective company-wide communications system. The Contractor must also designate responsible staff to be available on a twenty-four (24) hour basis to receive, and respond to emergency calls.

Describe your company's internal communications system, both in the office and in the field, and how it will enable your company to provide the communication capability as required in Scope of Services specifications. Also, describe how your company will provide the required twenty-four (24) hour communication capability. Use additional sheets as necessary to provide a full, and comprehensive response.

Merchants has a 24 hour/7 days a week dispatch manned by Merchants employees. Also, all Area Managers have Sprint phone/radios with Blackberry capability for field e-mail access. All crew foreman also have Sprint phone/radios. All of the above allows Merchants to have a 24 hours, 7 days a week rapid communication capabilities.

B. Traffic Safety:

Exhibit A, Section 7 General Provisions – Safety requires the selected Contractor provide safe and effective work area traffic control, per Caltrans' "Manual On Uniform Traffic Control Devices 2012 (or most current revised version) California Supplement, Part 6, Temporary Traffic Control". Please describe your company's general traffic control practices and training, and how your company intends, if selected, to conduct work area traffic control operations to provide service for this project. Use additional sheets as necessary to provide a full and comprehensive response.

Merchants possesses all it's own traffic control devices, including arrow boards, delinators signage etc. It is very versed and experienced in caltrans requirements. It practices traffic control daily in Cities through out Southern California.

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

C. Greenwaste Recycling:

AB 939 mandates that the City of Moreno Valley divert from landfills fifty percent (50%) of the solid waste, including greenwaste, generated within its jurisdiction. Please describe your company's program to insure that the City receives credit for the greenwaste that will be generated from executing the project's Scope of Work (Exhibit A). Be sure to include the name(s), address(es) and phone number(s) of the recycling facility(ies) that will be accepting the greenwaste generated from your operations on the project. If planning to use any recycled greenwaste products (mulch, compost, soil amendments, etc.) on the project, please give name/address/phone information of the producer if different from those listed above. Use additional sheets as necessary to provide a full and comprehensive response.

Burrtec Waste Industries, Inc.
9820 Cherry Ave.
Fontana, CA. 92335
Contact: Vicente - 800.998.8774

Burrtec Waste Industries, Inc.
1850 Aqua Mansa Rd.
Riverside, CA. 92509
Contact: Judy Davis - 951.786.0639

Aqua Mansa Waste Site
1830 Aqua Mansa Rd.
Riverside, CA. 92509
Phone: 951.786.0544

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

VIII: SCHEDULE I – LIST OF SUBCONTRACTORS

A. SUBCONTRACTORS:

In compliance with the provisions of Government Code, Section 4102, the undersigned Proposer sets forth the name and location (address) of the place of business of each subcontractor who will perform work, labor or render service to the Contractor in or about the construction of the work or improvement in an amount in excess of one-half of one percent (0.5%) of the general contractor's total proposal, and the portion of the work which will be done by each subcontractor, as follows:

Name, License, and Classification No.	Place of Business and Telephone	Description of Work
None		

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

IX: SCHEDULE I – CERTIFICATION OF NON-DISCRIMINATION

Pursuant to California Labor Code Section 1735, as added by Chapter 643 statutes of 2039, and as amended,

No discrimination shall be made in the employment of persons upon Public Works because of race, religion creed, color, national origin, ancestry, physical handicaps, mental condition, marital status or sex of such persons, except as provided in Section 12940, of the California Labor Code and every Contractor of Public Works violating this section is subject to all penalties imposed for a violation of the Chapter.

I certify that I have read, and understand the foregoing:

SIGNATURE _____

PRINTED NAME Mark Brower

TITLE President

COMPANY NAME Merchants Landscape Services, Inc.

DATE March 21, 2016

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

X: SCHEDULE I – PROPOSAL AFFIRMATION

With regard to the information provided hereinabove (Exhibit E: Proposal Submittal Documents), I affirm that:

- All information provided is true and correct to the best of my knowledge, and;
- I understand that a materially false statement willfully or fraudulently made in connection with this proposal may result in the termination of any Contract between the City of Moreno Valley, the Moreno Valley Community Services District and Merchants Landscape Services, Inc., and further, the aforesaid company may be barred from participation in future City contracts and be subject to possible criminal prosecution, and;
- I have legal authority to bind Merchants Landscape Services, Inc. to the terms of this affirmation (See "INSTRUCTIONS TO PROPOSER", Section D – Signature of Contract Proposal).

For the proposal to be valid, this sheet must be returned with the proposal submission and fully completed with a legible signature and date

SIGNATURE _____

NAME Mark Brower

TITLE President

COMPANY NAME Merchants Landscape Services, Inc.

DATE March 21, 2016

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

I. SCHEDULE II – BID SCHEDULE

PROPOSER: Merchants Landscape Services, Inc.
(Company Name)

A. SERVICE SCHEDULES:

1. Promontory (E-8) Landscaped Parkways and Medians

TYPE / SERVICE LEVEL	ESTIMATED AREA	COST			
PLANTER	48,500 sq. ft.	PER SQ. FT.	PER MONTH	ID	PER 12 MONTHS
LEVEL1 (4 WEEKS)	**CURRENT**	**$ 0.0250**	**$ 1,212.50**	**1**	**$ 14,550.00**
Level 2 (8 Weeks)	Optional	$ 0.0230	$ 1,115.50	2	$ 13,386.00
Level 3 (12 Weeks)	Optional	$ 0.0210	$ 1,018.50	3	$ 12,222.00

2. Moreno Valley Ranch East (Zone 04 of LMD No. 2014-02) Landscaped Parkways and Medians

TYPE / SERVICE LEVEL	ESTIMATED AREA	COST			
PLANTER	642,083 sq. ft.	PER SQ. FT.	PER MONTH	ID	PER 12 MONTHS
Level1 (4 Weeks)	Optional	$ 0.0080	$ 5,136.66	4	$ 61,639.97
Level 2 (8 Weeks)	Optional	$ 0.0070	$ 4,494.58	5	$ 53,934.97
LEVEL 3 (12 WEEKS)	**CURRENT**	**$ 0.0045**	**$ 2,889.37**	**6**	**$ 34,672.48**
Level 4 (16 Weeks)	Optional	$ 0.0030	$ 1,926.25	7	$ 23,114.99
Level 5 (20 Weeks)	Optional	$ 0.0025	$ 1,605.21	8	$ 19,262.49
Level 6 (24 Weeks)	Optional	$ 0.0020	$ 1,284.17	9	$ 15,409.99
TURF	338,321 sq. ft.	PER SQ. FT.	PER MONTH	ID	PER 12 MONTHS
1 Time per Week	Optional	$ 0.0240	$ 8,119.70	10	$ 97,436.45
1 Time Every 2 Weeks	**CURRENT**	**$ 0.0120**	**$ 4,059.85**	**11**	**$ 48,718.22**
		Annual Amount Proposed for Zone (Total of Row IDs 6 and 12)		**16**	**$ 83,390.71**

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

3. Stoneridge Ranch (Zone 05 of LMD No. 2014-02) Landscaped Parkways and Medians

TYPE / SERVICE LEVEL	ESTIMATED AREA	COST			
PLANTER	98,392 sq. ft.	PER SQ. FT.	PER MONTH	ID	PER 12 MONTHS
LEVEL1 (4 WEEKS)	**CURRENT**	**$ 0.0142**	**$ 1,397.16**	**17**	**$ 16,765.92**
Level 2 (8 Weeks)	Optional	$ 0.0122	$ 1,200.38	18	$ 14,404.56
Level 3 (12 Weeks)	Optional	$ 0.0100	$ 983.92	19	$ 11,807.04

4. Mahogany Fields (Zone 06 of LMD No. 2014-02) Landscaped Parkways and Medians

TYPE / SERVICE LEVEL	ESTIMATED AREA	COST			
PLANTER	164,937 sq. ft.	PER SQ. FT.	PER MONTH	ID	PER 12 MONTHS
LEVEL1 (4 WEEKS)	**CURRENT**	**$ 0.0170**	**$ 2,803.93**	**20**	**$ 33,647.15**
Level 2 (8 Weeks)	Optional	$ 0.0150	$ 2,474.05	21	$ 29,688.60
Level 3 (12 Weeks)	Optional	$ 0.0130	$ 2,144.18	22	$ 25,730.16
TURF	13,627 sq. ft.	PER SQ. FT.	PER MONTH	ID	PER 12 MONTHS
1 Time per Week	**CURRENT**	**$ 0.0220**	**$ 299.79**	**23**	**$ 3,597.48**
1 Time Every 2 Weeks	Optional	$ 0.0150	$ 204.40	24	$ 2,452.80
		Annual Amount Proposed for Zone (Total of Row IDs 20 and 23)		**26**	**$ 37,244.63**

5. Celebration (Zone 07 of LMD No. 2014-02) Landscaped Parkways and Medians

TYPE / SERVICE LEVEL	ESTIMATED AREA	COST			
PLANTER	44,591 sq. ft.	PER SQ. FT.	PER MONTH	ID	PER 12 MONTHS
LEVEL1 (4 WEEKS)	**CURRENT**	**$ 0.0250**	**$ 1,114.77**	**27**	**$ 13,377.24**
Level 2 (8 Weeks)	Optional	$ 0.0230	$ 1,025.59	28	$ 12,307.08
Level 3 (12 Weeks)	Optional	$ 0.0210	$ 936.41	29	$ 11,236.92

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

6. Channels and Parkway Planters[1]

TYPE / SERVICE LEVEL	ESTIMATED AREA	COST			
CHANNEL[2]		PER SQ. FT.	PER MONTH	ID	PER 12 MONTHS
Oliver Street	225,553 sq. ft.	$ 0.006	$ 1,353.32	30	$ 16,239.84
Line F East	379,744 sq. ft.	$ 0.006	$ 2,278.46	31	$ 27,342.00
Line F West	180,563 sq. ft.	$ 0.006	$ 1,083.38	32	$ 13,000.80
PLANTER[3]	1,568 sq. ft.	PER SQ. FT.	PER MONTH	ID	PER 12 MONTHS
LEVEL1 (4 WEEKS)	**CURRENT**	**$ 0.0320**	**$ 50.18**	33	$ 602.16
Level 2 (8 Weeks)	Optional	$ 0.0310	$ 48.60	34	$ 583.20
Level 3 (12 Weeks)	Optional	$ 0.0300	$ 47.04	35	$ 564.48
		Annual Amount Proposed for Zone (Total of Row IDs 30, 31, 32, and 33)		36	$ 57,184.80

[1] *Service will begin when Channels and Parkway Planters in this table are accepted by the City. Amount proposed for this Zone will be adjusted based on date of actual acceptance.*
[2] *Service Levels do not apply to Channel Maintenance due to required timing of services. Refer to Exhibit A, Section 17 - Technical Provisions for Channel Maintenance and Exhibit E, Section V - Frequency of Services Table for detailed information.*
[3] *Parkway Planter located adjacent to Line F East.*

Annual Amount Proposed for All Zones (Total of Row IDs 1, 16, 17, 26, 27, and 36)	$ 222,513.29

The Total Amount of the Service shall be the combined Total 12 Month Cost for each of the Zone at the current service level as identified in the table above.

Figures: $222,513 and 29 /100's Dollars

Words: Two hundred twenty-two, five hundred thirteen and 29 /100's Dollars

All work shall be performed in accordance with the terms and conditions of this Independent Contractor Agreement, which includes all General and Technical Provisions as outlined herein for the Full or Reduced Services. Any modification to the number of occurrences for any service shall be made per written direction by the City. Service occurrences may be modified with 30 days advance written notice by the City.

The Contractor shall furnish all labor, equipment, and materials necessary to provide maintenance of median and parkway, irrigation, and landscaping as set forth in Exhibit A of this Contract, and; any and all addenda issued prior to the opening of Proposals; any Change Orders issued after the execution of the Independent Contractor Agreement and its attached exhibits.

Addendum No(s). 1,2 has/have been received and is/are made a part of this proposal.

Pres. 4/18/16
(Authorized Signature and Title) (Date)

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

B. ADDITIONAL WORK PRICE LIST

THE FOLLOWING PRICES ARE HEREBY MADE A PART OF THIS AGREEMENT

Prices for Additional Work and Routine Irrigation Repair shall include, but are not limited to, those situations where Additional Work may be required, as referenced in Exhibits A and C.

UNIT PRICES (Includes all labor and materials)

1.	1 gal. shrub/vine/ground cover in place	@	$ 9.00	ea
2.	5 gal. shrub/vine/ground cover in place	@	$ 20.00	ea
3.	5 gal. tree in place (stakes included)	@	$ 35.00	ea
4.	15 gal. tree in place (stakes included)	@	$ 95.00	ea
5.	24" box tree in place (stakes included)	@	$ 250.00	ea
6.	36" box tree in place (guy wires included)	@	$ 795.00	ea
7.	Flat of ground cover in place	@	$ 20.00	ea
8.	Fertilizer application	@	$ 5,500.00	ea
9.	Planter bed mulch in place	@	$ 30.00	/cu. yd
10.	Additional labor	@	$ 21.00	/man hour
11.	Additional Irrigation Technician	@	$ 35.00	/man hour

PROPOSER: Merchants Landscape Services, Inc.
(Company Name)

President — March 21, 2016
(Authorized Signature and Title) — (Date)

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

C. ROUTINE IRRIGATION REPAIR PRICES AND ADDITIONAL LANDSCAPE AREA

THE FOLLOWING PRICES ARE HEREBY MADE A PART OF THIS AGREEMENT

1. Irrigation repair parts for routine repairs @ cost plus 15 %

2. Unit prices for Additional Work (additional landscape areas) per Exhibit C, Section 2

   A. Additional parkway areas, **PLANTERS** (trees to 18-ft. height, shrubs, ground cover included, as applicable): Planter areas added during the term of this contract shall be incorporated at the Per Square Foot rate and Service Level of the Zone at the time of its incorporation. (Refer to Exhibit E, Schedule 2 A)

   B. Additional parkway areas, **TURF** (trees to 18-ft. height, shrubs, ground cover included, as applicable): Turf areas added during the term of this contract shall be incorporated at the Per Square Foot rate and Service Level of the Zone at the time of its incorporation.(Refer to Exhibit E, Schedule 2 A)

3. Any other Additional Work shall be quoted per Exhibit C, Section 2.

PROPOSER: Merchants Landscape Services, Inc
(Company Name)

President — March 21, 2016
(Authorized Signature and Title) — (Date)

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

II. SCHEDULE II - CONTRACT PROPOSAL

The undersigned declares that he/she has carefully examined the location(s) of the proposed work, that he/she has examined the Specifications and has read the accompanying Instructions to Proposers, and hereby proposes and agrees, if this proposal is accepted, to enter into a Contract with the City for the good and faithful performance thereof, to furnish all material and do all work required to complete the said work in accordance with the Specifications, in the time and manner therein prescribed, for the unit cost and lump sum amounts set forth in the proposal and as listed as follows. The undersigned further declares that the representations made herein are made under penalty of perjury.

TOTAL BASE COMPENSATION AMOUNT (FROM Exhibit E, Schedule II A. "Proposal Schedule"):

One hundred seventy nine thousand three hundred seventy seven dollars and sixty eight cents
(Dollar Amount in Words)

$ 179,377.68
(Dollar Amount in Figures)

Date: March 21, 2016

Proposer: Merchants Landscape Services, Inc
(Company Name)

By: _____
(Signature)

Title: President

State License Number and Classification: 765658 C27

If a corporation, complete the following:

INCORPORATED UNDER LAWS OF THE STATE OF California

(Corporate Seal)

PRESIDENT Mark Brower

SECRETARY Donna Brower

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

III. SCHEDULE II - AFFIRMATION OF PROPOSAL GUARANTEE

The undersigned also affirms that:

Accompanying this proposal is a cashier's check, a certified check, or a Proposal Surety Bond _____, payable to the City of Moreno Valley, which is deemed to constitute liquidated damages, if, in the event this proposal is accepted, the undersigned shall fail to execute the Contract and furnish satisfactory bonds under the conditions and within the time specified in this proposal, otherwise said cash, cashier's check, certified check or Proposal Surety Bond is to be returned to the undersigned.

Dated March 21, 2016

Signature of Proposer _____

By Mark Brower

Address of Proposer 1510 S. Lyon St., Santa Ana, CA. 92705

Telephone Number of Proposer (800) 645.4881

Names and Addresses of Members of the Company:

Mark Brower, President-1510 S. Lyon St., Santa Ana, CA. 92705

Theodore Haas, Chairman-1510 S. Lyon St., Santa Ana, CA. 92705

(If a Corporation)

Signature of Proposer _____

By Mark Brower

Title President

Business Address 1510 S. Lyon St., Santa Ana, CA. 92705

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

Affirmation of Proposal Guarantee (cont.)

Incorporated Under Laws of the State of	California
State License Number and Classification	765658 C27
PRESIDENT	Mark Brower
SECRETARY	Donna Brower
TREASURER	Theodore Haas

(Corporate Seal)

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

** TEN PERCENT THE AMOUNT BID IN DOLLARS**

IV. SCHEDULE II - PROPOSAL SURETY BOND

KNOW ALL MEN BY THESE PRESENTS, that we Merchants Landscape Services, Inc. _____, as principals, and Hartford Fire Insurance Company _____, a duly authorized corporate surety: Business Address One Pointe Drive, 6th Floor, Brea, CA 92821 _____, Phone (714) 374-1321 _____, are held and firmly bound unto the City of Moreno Valley and the City of Moreno Valley Community Services District, as Surety, in the sum of ** _____ Dollars, ($ 10% **********), for payment of which sum well and truly to be made, we bind ourselves, and each of our heirs, successors, executors, administrators and assignees, jointly, and severally, firmly by these presents.

The condition of the foregoing obligation is such that whereas said principal(s) (is) (are) about to hand in and submit to the City Council and the City Council in its capacity as the Board of Directors of the Moreno Valley Community Services District, a proposal for **LANDSCAPE DISTRICTS - SOUTH**, for the performance of the work therein mentioned, in compliance with the specifications therefore, under an invitation of said City Council and the City Council in its capacity as the Board of Directors contained in the Notice Requesting Proposals attached to said proposal.

NOW, THEREFORE, if the said bond or proposal of the said principal shall be accepted, and said work be awarded to said principal thereupon by said City Council and/or City Council in Its Capacity as the Board of Directors, and if the said principal shall fail or neglect to enter into a Contract therefore within the required time, then in that case the undersigned obligors will pay to the City of Moreno Valley and/or the Moreno Valley Community Services District the full sum of TEN PERCENT THE AMOUNT BID IN **********Dollars,($ 10% **********), as liquidated damages for such failure and neglect.

WITNESS our hands this 15th day of March ,20 16 .

(SIGNATURE PAGE FOLLOWS)

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

Proposal Surety Bond (cont.)

PRINCIPAL	CORPORATE SURETY
Name: Merchants Landscape Services, Inc.	Name: Hartford Fire Insurance Company
Address: 1190 Monterey Pass Road	Address: One Pointe Drive, 6th Floor
Monterey Park, CA 91754	Brea, CA 92821
Tel. No.: (323)881-6701	Tel. No.: (714)674-1321
By:	By: Mary Smith
	Attorney-in-Fact MARY SMITH

SIGNING INSTRUCTIONS

- The Bond shall be executed by an admitted Surety insurer (CCP 995.311) and the Surety must be registered as an admitted insurer in at least one county in the State of California.
- The Bond shall include attached Notary Certificates for the Attorney-in-Fact and the Principal.
- The Bond shall include an attached original Power of Attorney only authorizing the Attorney-in-Fact to act for the Surety (CCP 1305).
- The Bond shall include the address at which the Principal and Surety may be served with notices, papers and other documents (CCP 995.320 (a)(2)).

If any of the above items are omitted, the proposal will be considered non-responsive and will be rejected.

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

On 3/15/16 before me, Debra Rosas, Notary Public,
Date *Here Insert Name and Title of the Officer*

personally appeared MARY SMITH
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

DEBRA ROSAS
Commission # 1974480
Notary Public - California
Los Angeles County
My Comm. Expires May 5, 2016

Signature _____
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____ Document Date: _____

Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____
Signer Is Representing: _____

Signer's Name: _____
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
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☐ Other: _____
Signer Is Representing: _____

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Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

POWER OF ATTORNEY

Direct Inquiries/Claims to:
THE HARTFORD
Bond T-4
One Hartford Plaza
Hartford, Connecticut 06155
call: 888-266-3488 *or fax:* 860-757-5835)

KNOW ALL PERSONS BY THESE PRESENTS THAT: Agency Code: 72-183250

- [X] **Hartford Fire Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
- [X] **Hartford Casualty Insurance Company**, a corporation duly organized under the laws of the State of Indiana
- [X] **Hartford Accident and Indemnity Company**, a corporation duly organized under the laws of the State of Connecticut
- [ ] **Hartford Underwriters Insurance Company**, a corporation duly organized under the laws of the State of Connecticut
- [ ] **Twin City Fire Insurance Company**, a corporation duly organized under the laws of the State of Indiana
- [ ] **Hartford Insurance Company of Illinois**, a corporation duly organized under the laws of the State of Illinois
- [ ] **Hartford Insurance Company of the Midwest**, a corporation duly organized under the laws of the State of Indiana
- [ ] **Hartford Insurance Company of the Southeast**, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, ***up to the amount of*** Unlimited :

Steven L. Brockmeyer, Keith Dinwiddie, Barbara Doerning, Donna M. Green, Mary Smith, Ronald C. Wanglin of PASADENA, California

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by ☒, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on August 1, 2009, the Companies have caused these presents to be signed by its Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.

Wesley W. Cowling, Assistant Secretary

M. Ross Fisher, Vice President

STATE OF CONNECTICUT }
COUNTY OF HARTFORD } ss. Hartford

On this 12th day of July, 2012, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Vice President of the Companies, the corporations described in and which executed the above instrument; that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.

Kathleen T. Maynard
Notary Public
My Commission Expires July 31, 2016

CERTIFICATE

I, the undersigned, Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of March 15, 2016

Signed and sealed at the City of Hartford.

Gary W. Stumper, Vice President

POA 2012

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

State of California
County of Orange

On March 21, 2016 (Date) before me, Nadine Rodriguez, Notary Public (Here Insert Name and Title of the Officer),

personally appeared Theodore Haas (Name(s) of Signer(s)),

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: Nadine Rodriguez (Signature of Notary Public)

NADINE RODRIGUEZ
Commission # 1974930
Notary Public - California
Orange County
My Comm. Expires Apr 13, 2016

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

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☐ Individual
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer's Name: _____

☐ Corporate Officer — Title(s): _____
☐ Individual
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

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Item #5907

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

V. SCHEDULE II - NON-COLLUSION AFFIDAVIT

STATE OF CALIFORNIA)
COUNTY OF Orange)§

(NAME) Mark Brower, affiant being first duly sworn, deposes and says:

That he or she is President of
(sole owner, partner or other proper title)

Merchants Landscape Services, Inc
(Contractor)

the party making the foregoing bid, that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid (Public Contract Code Section 7106).

Bidder's Name: Merchants Landscape Services, Inc

Bidder's Address: 1510 S. Lyon St., Santa Ana, CA. 92705

Telephone No.: (800) 645.4881

(Signature of Bidder)

President
(Title)

ALL SIGNATURES MUST BE NOTARIZED

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

State of California
County of Orange

On March 21, 2016 (Date) before me, Nadine Rodriguez, Notary Public (Here Insert Name and Title of the Officer),

personally appeared Mark Brower (Name(s) of Signer(s)),

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

NADINE RODRIGUEZ
Commission # 1974930
Notary Public - California
Orange County
My Comm. Expires Apr 13, 2016

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: Nadine Rodriguez (Signature of Notary Public)

Place Notary Seal Above

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☐ Individual	☐ Individual
☐ Partner — ☐ Limited ☐ General	☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact	☐ Attorney in Fact
☐ Trustee	☐ Trustee
☐ Guardian or Conservator	☐ Guardian or Conservator
☐ Other: _____	☐ Other: _____
Signer Is Representing: _____	Signer Is Representing: _____
RIGHT THUMBPRINT OF SIGNER — Top of thumb here	RIGHT THUMBPRINT OF SIGNER — Top of thumb here

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Item #5907

Attachment: FY 2016/17 Agreement for Landscape Districts - South (2386 : PARTICIPATION IN EASTERN MUNICIPAL WATER DISTRICT'S

merchants landscape services, inc.

VEHICLE LIST

Vehicle	Licence #	Year	Make/Model	Vin #
	6UCR926	2012	Mercedes Benz	
101	6YXX395	2014	Lincoln Navigator	
102	6U04567	2001	Inter Tree Trim	1HTSCAAM41H382577
103	7D22716	2003	Chevy Silverado	2GCEC19V931328785
104	8L29915	2007	Silverado 3500 Chassis	1GBJC39U67E173932
105	7L74667	2004	Ford F-150	1FTRX12W44NB43407
107	7D22717	2003	Chevrolet pickup	2GCE19V131327033
110	5R29572	1997	Ford F-150 KC pickup	1FTDX1763WNA12281
112	6E91433	1995	Izusu NPR	JALC4B1K5S7000324
115	6V31775	2002	Ford F-150 pickup	1FTRX17W42NA69265
116	7B16229	2003	Chevy S-10	1GCCS14XX38115778
117	7W83338	2005	Ford F-350	1FDWF36515EC89280
118	7X56108	2005	Ford F-350	1FDSF345X5EB18027
119	8D61369	1995	Chevy 1 ton truck	1GBJC34K2SE160450
120	8C42496	1995	Chevy 3/4ton	1GCGC29K0SE250057
122	6JIE640	2009	Lincoln Navigator	5LMFU27509EJ01141
123	7G10650	2004	Chevy Silveradio 1500	2GCEC19VX41124479
125	8R87479	2005	Ford Ranger pickup	1FTYR14U15PA62484
126	7V29675	2005	Ford F-350 Stake Bed	1FDSF34515EB18028
128	7E27786	2003	Chevy Silverado Extra C	2GCEC19V231325856
129	6G42812	2000	Ford F-150	1FTZX1728YKB15395
130	6J05871	2000	Ford F-150	1FTZF1725YNC19831
132	6B33559	1999	Ford Ranger pickup	1FTYR14V6XPB36672
133	7B13735	2003	Chevy Silverado	1GCEC14V93E148518
134	7B13736	2003	Chevy Silverado	1GCEC14V43Z131019
135	8z49512	2005	Ford F-150	1FTRF12215NB52812
136	8G97528	2005	Ford F-350 Stake Bed	1FDWF36565EA09093
137	7D80048	2003	Ford Comm Cutaway Van	1GBJG31U531141331
139	6Z65654	2003	Ford Ranger pickup	1FTYR10U63PA06057
141	8C77592	2006	F-150	1FTRF12W56NB07294
142	7G10649	2003	Chevy Silverado 1500	2GCEC19V841120298
145	7B16230	2003	Chevy S-10	1GCCS14XX38161840

Vehicle	Licence #	Year	Make/Model	Vin #
146	7P94549	2004	Ford Ranger pickup	1FTYR10U84PB61601
148	8Z49580	2000	Ford Ranger pickup	1FTYR14V2YPB19854
150	6N20581	2001	Ford F-150 pickup	1FTZX17261KF41897
151	7H04122	2001	Ford F-150 pickup	1FTRX17W11NA31006
152	6G42813	2000	Ford F-150 pickup	1FTZX1728YKB15428
153	7W34816	2005	Ford F-350	1FDWF36Y55EB82596
157	7M68778	2004	Ford F150	2FTRX17WX4CA30253
158	7V83928	2005	Ford F-350	1FDWF36Y15EB99475
163	7J46556	1999	GMC Topkick/Chipper	1GDJ7H1D7XJ851924
166	6R34719	2001	Ford F-150 pickup	1FTRF17W01NB56193
167	8H06127	2008	Ford F250	1FTSX20578EA62845
169	8H06123	2007	Ford F-150	1FTRX12W07KC62609
170	8H06124	2008	Ford F250	1FTSX20548EA37420
171	8M00027	2007	Chevy Silverado Dump	1GBJC39K97E580433
172	8K76942	2006	GMC Sierra - Dump truck	1GDJC39U26E235445
173	8K89824	2008	Ford Ranger pickup	1FTYR14U28PA24167
174	8K89815	2008	Ford F-150 Supercrew	1FTRW12W88FA49226
175	8P13371	2007	GMC Sierra 3500 Chassis	1GDJC39K17E597007
176	8K48974	1999	Ford F800 (Water truck)	3FENF8010XMA08142
177	7E24179	2003	Chevy Silverado	2GCEC19V231324285
179	8L60482	2002	Ford F-150	1FTRX17W52NB04671
181	31767N1	2013	Tacoma	5TFNX4CN3EX032648
183	23722E1	1999	Ford F-150 pickup	1FTZF1724XKA29146
186	6B45138	1999	Ford Ranger pickup	1FTYR10V0XPB69401
187	5ZGF772	2008	Expedition	1FMFU19548LA02102
188	7B16231	2003	Chevy S-10	1GCCS14X538158568
189	8D20422	1999	Chevrolet 3500	1GBHC34R9XF032025
190	7W50752	2005	Ford	1FDWF36565EB43540
191	7W34817	2005	Ford F-350	1FDWF36555EB15096
192	8W12873	2005	Ford F-350	1FDWF365X5EB65444
193	7W50751	2005	Ford F-350	1FDWF36545EB68968
194	7W43810	2002	Ford F-350	1FDSW34F12EA82877

merchants
landscape services, inc.

Vehicle	Licence #	Year	Make/Model	Vin #
195	7W56849	2005	Ford F-350	1FDWF36535EC89278
196	6M12313	2000	GMC 3500 1-ton pick up	1GDHC33J9YF421896
197	7M71324	2003	Chevy Silverado 1500	2GCEC19V831328843
198	7B15152	2003	Chevy Silverado	1GCEC14V83Z192941
199	30458N1	2013	Toyota Tacoma	5TFNX4CN7DX031047
200	8D50109	2006	Ford F-150	1FTVX12566NA53572
201	8D50108	2006	Ford F-150	1FTVX12536NA53688
202	8C80429	2006	Ford F-150 Super Cab	1FTVX12586NA64007
205	8C80427	2006	Ford F-150 Reg Cab	1FTRF12W16NB33603
206	8P11010	2006	Chevy S3500 w/10' dump	1GBJC39U26E176714
207	8D76098	2006	Ford Ranger	1FTYR10U16PA83973
208	8E32375	2006	Ford Ranger	1FTYR10U16PA65828
209	8D11397	2006	Ford F-150 Super Cab	1FTVX12586NA67568
210	8D11398	2006	Ford F-150 Super Cab	1FTVX12566NA69738
211	8D11395	2006	Ford Ranger	1FTYR10U36PA64048
212	8D11399	2006	Ford F-150 XLT	1FTPW12596KD72039
213	8k89886	2008	Ford F-150 Supercrew	1FTRW12W28FA31238
214	8D11641	2006	Ford F-350 Chassis	1FDWW36P36EB42946
215	8D48234	2006	Chevy Silverado 3500	1GBHC34U96E197632
216	7S99151	2006	Ford F-150 XL	1FTVX125X6NB17726
217	8V44901	2006	Chevy Colorado Classis	1GBDS146968258211
218	8H06119	2007	Ford F-150	1FTRX12W77FA88496
219	8H06126	2008	Ford F-250	1FTSX20598EA56495
220	8H06122	2007	Ford F-150	1FTRX12WX7FA88458
221	8L38955	2007	Ford Ranger	1FTYR14D47PA95353
222	8L25904	2007	Ford Ranger XL2W	1FTYR14U77PA93029
223	8H06166	2007	Ford F-150	1FTPW12547FB59848
224	8F29332	2007	Chevy Pick up	1GCEC19X17Z166164
225	8M89937	2008	Ford F-150 XL 4x2 Spr cab	1FTRX12W88FB29932
226	7R13278	2005	Ford F150	1FTRF12205NB94436
227	8W97675	2010	Ford Ranger	1ftkr1ad5apa18041

Vehicle	Licence #	Year	Make/Model	Vin #
230	8P81301	2008	Ford F-150	1FTRX12W18FC11369
231	8P81302	2008	Ford F-150	1FTRX12W68FB60600
232	8P81304	2008	Ford F-350 Stakebed	1FDWF36548EE58132
233	8P81305	2008	Ford F-350 Stakebed	1FDWX36R48EB78209
235	8P81303	2008	Ford Ranger	1FTYR10U28PA93253
236	8P81298	2008	Ford Ranger	1FTYR10U78PA22033
237	8P81300	2008	Ford F-150	1FTRX12W58FB55243
238	8T87781	2008	Ford F350 Classis	1FDWF36558EA03046
239	8U48440	2008	Ford Ranger	1FTYR10D48PB15687
240	8U22271	2008	Ford F-150 XL 4x2 Spr cab	1FTRX12W78FB60539
241	8T87778	2008	Ford Ranger	1FTYR10DX8PB17220
242	8U52679	2008	Ford F-150	1FTRX12W38FB76222
243	8W12872	2008	Ford F-250	1FDSX20548EA56478
244	8P74270	2009	Ford F150 Super crew	1FTRW12899KB95421
245	8P74271	2009	Ford Ranger	1FTYR10D99PA22178
246	8V66223	2009	Ford Ranger	1FTYR10D99PA32144
248	8V84305	2009	Ford F350 Chassis	1FDWW36Y59EA42911
250	8Z63682	2010	Ford F-150	1FTEX1CW0AFB55573
251	8Z63680	2010	Ford Ranger	IFTKRIE3DAPA38475
252	8Y89431	2010	Ford F-250	1FDSX2A58AEA28882
253	80272B1	2011	Ford Ranger	1FTKR1AD5BPA31521
254	6SEJ852	1991	Schwarze Sweeper-Isu	JALB4B1H7M7003051
255	97111C1	2011	Ford F-150 XL	1FTEX1CMXBFB04176
256	32114D1	2011	Ford F150	1FTEX1CMZBFC07625
257	32115D1	2011	Forf F150	1FTEX1CM0BFC07624
258	32116D1	2011	Ford F150	1FTEX1CM0BFC21684
259	32112D1	2011	Ford Ranger	1FTKRIED0BPA72357
260	32113D1	2011	Ford Ranger	1FTKRIED2BPA72358
261	32107D1	2011	Ford Ranger	1FTKR1ED6BPA49875
261	1JT2835	2000	Big Tex Utility	16VVX0813Y1A30220
262	32120D1	2011	Ford F-150	1FTEW1CM6BKD38034

merchants landscape services, inc.

Vehicle	Licence #	Year	Make/Model	Vin #
228	8Y81888	2006	Ford F-350 Diesel	1FDWF36P36EB62520
229	8Z63681	2010	Ford Ranger	1FTKR1ED7APA38480
265	32122D1	2011	Ford F-150	1FTEX1CM4BFC30582
266	32110D1	2011	Ford Ranger	1FTKRIED5BPA72354
267	32111D1	2011	Ford Ranger	1FTKRIED9BPA72356
268	32108D1	2011	Ford Ranger	1FTKRIED7BPA72355
269	24977E1	2011	Ford F-150	1FTEX1CM98PA95972
270	32119D1	2011	Ford -F150	1FTEX1CM2BFC21685
271	32123D1	2011	Ford Ranger	1FTKR1ED1BPA82010
272	47675F1	2011	Ford F-150 XL	1FTEX1CM2BFC95835
273	04986G1	2011	Ford Ranger	1FTKR1EDXBPA95385
274	47671F1	2011	Ford F-150 XL	1FTEX1CM3BFC95844
275	47674F1	2011	Ford F150	1FTEX1CMXBFC95842
276	46161F1	2012	Ford F-250 XL	1FT7W2A63CEA07012
277	38452H1	2012	Ford F-150	1FTEX1CMOCFB57745
278	38453H1	2012	Ford F-250	1F17W2A6XCEC34116
279	78888J1	2013	Toyota Tacoma	5TFNX4CN8DX030733
280	63781L1	2013	Ford F-150	1FTFX1CF9DKF60721
281	63768L1	2013	Ford F-150	1FTFX1CF6DKF60711
282	09482M1	2013	Ford F150 Super crew	1FTFW1CF3DFD70344
283	26322J1	2013	Ford F150	1FTFX1CF8DKF99445
284	26321J1	2013	Ford F150	1FTFX1CF1DKF99447
285	31561P1	2014	Toyota Tacoma	5TFNX4CN2EX037520
286	31560P1	2014	Toyota Tacoma	5TFNX4CN2EX037677
287	31559P1	2014	Toyota Tacoma	5TFNX4CN4EX036644
Trailers	**Licence #**	**Year**	**Make/Model**	**Vin #**
T400	SE499113	2001	chipper	IVRU111A711000827
T401	SE529849	2003	chipper	1VRU111A541004217
T402	4LP6087	2000	Big TE Utility	16VVX0813Y1A21081
T403	4HE3486		Big Tex Utility	16VAX0E1541A16263
T404	4JK5130	2004	Big Tex Utility	16VVX101941A21257
T405	1JK4535	2000	Big Tex Utility	16VVX081XY1A23796

Trailers	Licence #	Year	Make/Model	Vin #
263	32109D1	2011	Ford Ranger	1FTKRIEDXBPA72351
264	32121D1	2011	Ford F-150	1FTEX1CM2BFC30581
T409	4JK4679	2005	Big Tex Utility	16VNX162451E84182
T410	4JK4680	2006	Carso	4HXDC16206C109783
T411	4MP3311	2006	Big Tex Utility	16VUX162661E99747
T412	4HE8313	2006	Big Tex Utility 16'	16VNX162361E22273
T413	4EM7980	2001	Big Tx Utility	16VVX101311A36977
T414	4KM3760	2000	Aztec Utility	4ZBUE0121YF000111
T415	4JK5131	2004	Big Tex Utility 12'	16VVX101841A16731
T416	4HE8310	2006	Big Tex Utility 12'	16VAX121252A68007
T417	4LG8320	2011	Big Tex Utility	16VAX1210B2A74688
T419	4KM3761	2007	Big Tex Utility 12'	16VAX121X72A66380
T420	1JP2204	2000	Big Tex Utility	16VVX1019Y1A26416
T422	1KM7084	2001	Big Tex Utility	16VVX101X11A43327
T423	4JH6661	2207	Big Tex Utility	16VAX101171A66521
T424	4MX4631	2000	Big Tex Utility	16VVX0816Y1A30986
T425	4DJ7406	2003	Big Tex Utility	16VVX101431A60756
T426	4ES1233	2003	Big Tex Utility	16VVX081331A78731
T427	4CH6366	2000	Big Tex Utility	16VVX1416YLA31048
T428	4DY5274	2003	Big Tex Utility	16VVX081221A55214
T430	4KR8518	2009	Utility DV mfts DV10ET-20split ramp	1D9EU20289S591930
T431	1JG6545	2000	Big Tx Utility	16VVX0818Y1A23794
T433	1KF2738	2001	Big Tx Utility	16VVX121611A36968
T435	4FV8383	2003	Big Tx Utility	16VAX101241A14634
T436	4KF4420	2003	Big Tx Utility	4K8AX101531A12493
T437	4AK6903	2002	Big Tx Utility	16VUX162121E51941
T438	4KF4422	2004	Big Tx Utility	16VNX142741E45331
T440	4KM3781	2005	Big Tx Utility	16VNX162052E51416
T441	4HE9157	2006	Big Tex Utility 16'	16VNX162961E22276
T443	4HE2465	2007	Big Tex Utility	16VNX162851E84749
T445	4KL2459	2005	Big Tex Utility 12'	16VAX121552A70107
T446	4LL7626	2007	Big Tex Utility	16VVX121271A52349

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Trailers	Licence #	Year	Make/Model	Vin #
T406	4GY3629	1999	Big Tx Utility	16VVX0811X1A15309
T407	1JC3389	2000	Big TE Utility	4K8VX0817Y1A48404
T408	4MX9873	2013	Big Tx Utility	16VAX1217D2A97162
T456	4KK1244	2008	Big Tex Trailer	16VAX121X81A06008
T457	4KK1245	2008	Big Tex Trailer	16VEX202X82H12649
T458	4KK1323	2008	Big Tex Trailer	16VAX101481A06010
T459	4KM3529	2008	Big Tex Utility	16VCX162582H98476
T460	4KK3427	2008	Big Tex Trailer	16VEX202882H2651
T461	4KK7351	2009	Big Tex Utility	16VCX182891E33827
T462	4JH6668	2007	Big Tx Utility	16VVX162471E59376
T463	4KK3984	2009	Big Tx Utility	16VVX081X91A29423
T464	4KR6684	2009	Utility DV mfts split ramp	1D9EU20209S591923
T465	088052U	2007	Honda Bull Dog/water Trailer	DHWT5008207
T466	4LB5419	2010	Big Tex Utility	16VAX1016A2A45004
T467	4LB9408	2010	Big Tx Utility	16VVX0811A2A57741
T468	4LF4391	2010	Big Tex Utility	1D9UU1011AS591060
T469	4LG9516	2011	Big Tex Utility	16VCX1623A2E65246
T470	4LU3108	2011	Big Tex Utility	1D9EU2025BS591177
T471	4HE3486	2007	Carson trailer	4HXSU16247C116791
T472	4LN6735	2011	Big Tex Utility	16VAX1215B2A87677
T473	4LU5514	2011	Big Tx Utility	16VCX1627B2D75003
T474	4LU7031	2011	Big Tex Utility	16VCX2020B2E97183
T475	4LU2868	2011	Big Tex Utility	16VUX1622B2E97983
T476	4LX2245	2011	Big Tex Utility	16VEX2020B2H75220
T477	4LZ7119	2000	Big TE Utility	16VVX0816Y1A20376
T478	4LZ7447	2012	Big Tex Utility	16VUX1628C2E07513
T479	4MC2349	2011	Big Tex Utility	16VVX1213B2A98193
T481	4MY7125	2013	Big Tex Utility	16VUX1627D2E93253
T482	4NE1988	2013	Big Tex Utility	1D9LU1629DS591792
T483	4NE1980	2014	Big Tex Utility	16VEX2029E2H20835
T484	4NE1981	2013	Big Tex Utility	16VAX1011D2A80778

Gators	Licence #	Year	Make/Model	Vin #
T447	4JH8745	2007	Big Tx Utility	16VVX121X71A71988
T449	New	2007	Big Tx Utility	16VVX121371A59360
T455	4KK1243	2008	Big Tex Trailer	16VAX121571A66518
C506			Taylor Dunn	
C507	8Z49345	2002	Chrysler GEM	5ASAK27499F030371
C508			John Deere	Serial # W00turf003575
C509			Chrysler GEM	5ASAK27482F021337
C510			EZ-GO	Serial # J0234-188068
C511			John Deer Gator	W0TURFD002841
C512			John Deer Gator	W004x2x036574
C513			John Deer Gator	W0TURFD002862
C514			John Deer Gator	W04X2XD0142236
C515			John Deer Gator	W04X2XD014241
C516			John Deer Gator	WOTURFD003334
C517			John Deer Gator	WO4X2XDO14093
C518			John Deer Gator	WOTURFD00335
C519			John Deer Gator	WOTURFD0035691
C520	7D35838	2002	Golf Cart	5ASAK27412F020997
C521	Irvine	1987	Utility Trailer for Gator	TC022BX010203
C522	Irvine		Used John Deere Gator	W004X2X090777
C523	Irvine	1987	Utility Gator	19342
C524	Irvine		John Deere Gator	W0TURFD003002
C525	Irvine	2006	John Deer Gator	W0turfD004070
C526	Irvine	1987	Utility Gator	19356
C527		2012	John Deere Gator	W04X2XD014234
C528		2012	John Deere Gator	W0TURFD003572
C529	Irvine		John Deere Gator	W006X4X028929
C502		2003	Carry All 6 Club Car	262720
C503		2003	Yamaha	JU2-003902
C504	7E24484	2002	Chysler	5ASAK27402F031103
C505			Taylor Dunn	Serial # 13610Mo.B2-48

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Gators	Licence #	Year	Make/Model	Vin #
1	558040	1997	Arrow board trailer	1W91S1014V1249094
2	Irvine	2008	Arrow board trailer	4GM1A09168152279 1
3	Irvine		John Deere Gator	WOTURF003571
4	Irvine	2014	John Deere Gator	1M04X2SJHEM090243
5	Irvine	2014	John Deer Gator	1M04X2SJHEM090047
6	Irvine		John Deere Gator	W04X2XXD014235
7	Irvine		John Deere Gator	WOOTURF001916
8	Irvine		John Deere Gator	WOOTURFD004273
9	Irvine		John Deer Gator	W004X2X034938
10	Irvine		TORO 3200 Cart	736127000059O.00
11	Irvine		Cushman Turf Truckstyer	99000804
12	Irvine		Cushman Turf Truckstyer	98008908
			John Deer Gator	W004X2X034945
			John Deere Gator	WOOTURF019344
			Utility Gator	WOOTURF018472
			Utility Gator	00-1916
			John Deere Gator	1M04X2SJPEM090071
	1987		Utility Gator/not in the yard	WOOTURF019344
			Utility Gator	WOOTURFD003335
			Cushman Cart	#LM21570
			214	#136465
			Club car	#JOO35-926304

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EQUIPMENT INVENTORY

Description	Serial #
22" Double Sided	8040608
22" Double Sided	9111852
4.0HP Honda	C11118
4.0HP Honda	C11471
Aerator - John Deere 1500 A20857	M01500X025435
Aerator - Lesco / push behind	72260835
Aerator Classen 42" 3 pt hitch	720263984
Aerator Drum 70"	20637
Aerator Gearmore w/tank	614002 / A20977
Aerator Hasqaverna walk behind	53058177
Aerator Honda 25.5 - Blu H742	83970569
Aerator Landpride PTO CA2560	574628
Aerator Model 968982105 Husquarna	8400476
Aerator Tow - Lesco	72260739
Aerator Tow behind	645
Aerator Walk behind	74238666
Aireator - Orange	53058177
Arborist's Saw 35cc	167677832
Arborist's Saw 35cc	169484303
Auger Honda Engine	A20849
Auger post hole digger w/2" - Echo A20447	E02103003542
Avger Honda/Ground hog-Mod. C71-5	1741792
Backpack Blower	271288400
Backpack blower	272069304
Backpack blower	272069313
Backpack blower	272069325
Backpack blower	T14211001105
Backpack blower	272069301

Description	Serial #
Backpack blower 36"-Walk behind Model THP17	824945
Backpack blower Echo 44cc carb II	P08111002945
Backpack blower Echo-PB-413	P0811003315
Backpack blower Husquvarna - 145BF	3003305
Backpack blower Husquvarna - 145BF	965102305
Backpack blower STIHL-BR-550	271665390
Backpack blower STIHL-BR-550	271665392
Backpack blower STIHL-BR-550	271665400
Backpack blower STIHL-EB8520	8100766
Backpack blower STIHL-EB8520	8100911
Backpack blower STIHL-EB8520	9051522
Backpack blower STIHL-EB8520	9071730
Backpack blower STIHL-EB8520	9071742
Backpack blower STIHL-EB854	T14211001168
Backpack blower STIHL-EB854	T14211001170
Bagging System - Exmark LHPUV4650	718814
Battery Charger (for 6 & 12 volts) Model #7200	
Bit- 5 gallon	
Bit- 5 gallon	
Blower	4000-736
Blower	4001270-04
Blower	P02311002461
Blower	4001276-04
Blower	P02311002514
Blower	P02311025542
Blower	P02311025546
Blower	P02311025631
Blower	P08211002836

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Description	Serial #
Blower	30002315
Blower	P02311025233
Blower	P02311025283
Blower	P02311025284
Blower	P02311025301
Blower	P02311025321
Blower	P02311025331
Blower	P02311025342
Blower	P02311025536
Blower	P02311026296
Blower	P33011002057
Blower - Echo	#09005538
Blower - Echo	D08111003544
Blower - Echo	O90005598
Blower - Echo	P02011001417
Blower - Echo	P08011015596
Blower - Echo	P08111002393
Blower - Echo	P08111002736
Blower - Echo	P08111002768
Blower - Echo	P08111002852
Blower - Echo	P08111003367
Blower - Echo	P08211002735
Blower - Echo	P08211003677
Blower - Echo	7611021673
Blower - Echo (blue)	2004117
Blower - Echo PB500HT	P02311006658
Blower - Echo PB500HT	P02311008859
Blower - Echo PB500HT	P02311023203

Description	Serial #
Blower - Echo PB500HT	P02311023292
Blower - Echo PB500HT	P02311023295
Blower - Echo PB500HT	P33011001514
Blower - Hasqvarna (green/black)	3004020
Blower - Hasqvarna (white)	3003318
Blower - Husqvama	3000793
Blower - Husqvama	3003317
Blower - Husqvama	3003850
Blower - Husqvama	3003867
Blower - Husqvama (black)	2005701
Blower - Husqvama (black)	3002024
Blower - Husqvama (black)	3002032 - 551139
Blower - Husqvama (orange)	3003215
Blower - Husvarna	60084
Blower - Husvarna	2001840
Blower - Husvarna	2003287
Blower - Husvarna	2011846.00
Blower - Husvarna	3000791
Blower - Husvarna	5000437
Blower - Husvarna	13000710
Blower - Kawaski (yellow)	56002021
Blower - PB500HT	P02311003668
Blower - PB500HT	P02311003698
Blower - PB500HT	P02311003707
Blower - PB500HT	P02311003795
Blower - PB500HT	P02311020201
Blower - Shindawa	4107423
Blower (Back Pack) 1 Echo 50CC Model PB500T	S69311005757

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Description	Serial #
Blower (Backpack)	904091
Blower (Backpack)	904093
Blower (Backpack)	904095
Blower (Backpack)	904097
Blower (Backpack)	285717301
Blower (Backpack)	T14211001051
Blower (black & white)	1002106
Blower (Mist) Model MD155DX-Maruyama	267622333
Blower (Mist) Model SR420Z-STILI	267622355
Blower back pak	9535115-76
Blower Backpack	904107
Blower Backpack	80704100
Blower Echo	P08211003528
Blower Echo	P08211003546
Blower Echo	PO8111001519
Blower Echo 4600	21171
Blower Echo 4600	9003418
Blower Echo 4600	42023570602
Blower Echo 4600	570411001510
Blower Echo Model PB413-H	2002773
Blower Echo Model PB413-H	2004160
Blower Husquvarna	2003214
Blower Husquvarna	3000795
Blower Husquvarna	3003206
Blower Husquvarna	5000061
Blower Husquvarna	5000435
Blower Husquvarna	7003839
Blower Husquvarna	10004766

Description	Serial #
Blower Echo Model PB413-H	9002264
Blower Echo Model PB415T	P08111001232
Blower Husquarna 145BF	2003219/2003223
Blower Husquvarna	1569
Blower Husquvarna	20001849
Blower Husquvarna	30002728
Blower Husquvarna	50000441
Blower Husquvarna	70924381
Blower Low Noise - Echo PB460LN	P08211002855
Blower Low Noise - Echo PB460LN	P08211003319
Blower Low Noise - Echo PB460LN	P08211003392
Blower Low Noise - Echo PB460LN	P0821100344
Blower Low Noise - Echo PB460LN	P08211003529
Blower Low Noise - Echo PB460LN	P08211003538
Blower Low Noise - Echo PB460LN	P08211003541
Blower Low Noise - Echo PB460LN	P08211003715
Blower Low Noise - Echo PB460LN	P08211006691
Blower Low Noise - Echo PB460LN	P08211006767
Blower Red Max Model EB2500	216836
Blower Red Max Model EB2500	71003044
Blower Red Max Model EB2500	E1325000
Blower Redmax	80206383
Blower Redmax Model EBZ5000	50403101
Blower Redmax Model EBZ5000	56300609
Blower Solo backpack	
Blower Stihl	271665391
Blower Stihl	No serial#
Blower, Frame, Throttl	4001266

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Description	Serial #
Blower, Frame, Throttl	620001275
Blower, Frame, Throttl	620001276
Blower, Frame, Throttl	620001279
Blower, Frame, Throttl	4000726
Blower, Frame, Throttl	4000728
Blower, Frame, Throttl	4000736
Blower, Frame, Throttl	40000739
Blower, Frame, Throttlb	4001279
Blower/Hip Throttle - Echo PB413HC	P08011020164
Blower/Hip Throttle - Echo PB413HC	P08011020184
Blower/Hip Throttle - Echo PB413HC	P08011020191
Blower/Hip Throttle - Echo PB413HC	P08011020193
Blower/Hip Throttle - Echo PB413HC	P08011020197
Blower-low noise	1002836
Blower-Redmax	EBZ9100-CA
Blower-Shindawa	90717
Bluebird 22" Flail Power rake	072330206
Bottle jack 10 tons	
Bulldog 500 Gallon Water trailer	
Cart Cushman	99000804
Chain Saw - Homelite	ATL1942287
Chain Saw - Husqvarna	SM080300474
Chain saw - STHL (Big)	30030006821
Chain saw (small) - Echo	2037266
Chain Saw 1 Echo 32.6cc Chain Saw 14" bar top h	C07811002340
Chain Saw 1 Echo 32.6cc Chain Saw 14" bar top h	C07711009382
Chain Saw 14"	285232710
Chain Saw 14"	285232715

Description	Serial #
Chain Saw 14"	C07611009915
Chain Saw 16" - Echo	C07611003642
Chain Saw 16" - Echo	C07611007001
Chain Saw Echo	341
Chain Saw Echo	2027080
Chain Saw Echo	2054689
Chain Saw Echo - 16"	C14709004338
Chain Saw Echo - 16"	CS378-16
Chain Saw Echo Model CS341	2027183
Chain Saw Husqvarna 36cc	74439484
Chain Saw Stihl	269159862
Chainsaw - Echo	C08011005435
Chainsaw - Echo small	2029100
Chainsaw - Stihl	3005000409
Chainsaw - Stihl	11226610503
Chainsaw - Stihl	30050007409
Chainsaw - Stihl	ms250
Chainsaw 14" Echo-C-S 341	C07611003730
chainsaw 18"	279612776
Chainsaw 18" 3/8 62DL	C08111239931
chainsaw 18" - STI MS250-18	278327202
chainsaw 18" MS250-18	279612761
Chainsaw 20" Echo-C-S 520	5019852
Chainsaw 20" Echo-C-S 520	5033518
Completing Kit - Exmark LHPUV	109-1014
Completion Kit - Exmark 109-1169	
Cushman w/hi/low hydraulics & PTO kit	
Dethatcher - 22" Flail 5.5hp Hon	81762524

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Description	Serial #
Dethatcher - 22" Flail 5.5hp Hon	85075089
Dethatcher PTO Vrismo (purchased from Eberhard)	
Dethatcher walk behind - BlueBird	54262662
Dethatcher walk behind - BlueBird	72330206
Drive kit 60" - Exmark 109-1167	109-1167
Drive kit 60" - Exmark 109-1167	
Edge Trimmer - Model 300-1C	B795989
Edge Trimmer - Model 308-H	B66969
Edge trimmer long	S69311004793
Edger - Echo	ACN006662862
Edger - Power trim	568511001570
Edger - Power trim	B84597
Edger - Power trim	S68511001565
Edger - Power trim	S685110016444
Edger 3.5 hp	C11444
Edger 3.5 hp - POW200-4	C07182
Edger 3.5 hp - POW200-4	C07223
Edger 3.5 hp - POW200-4	C07414
Edger 3.5hp	C06522
Edger 3.5hp	C11443
Edger 3.5HP - POW 200-4	C05761 / 0802213YA85180
Edger 3.5HP - POW 200-4	C05802 / 080213YA85196
Edger 3.5HP - POW 200-4	C06093
Edger C05761	0802213YA25180
Edger C05802	080213YA85196
Edger Echo	568511001524
Edger Echo pe200	68211001143
Edger Pole - Echo	568511001483

Description	Serial #
Edger Power Trim	B57935
Edger Power Trim	B78716
Edger Power Trim	B78717
Edger Power Trim	B83926
Edger Power Trim	B87644
Edger Power Trim	B87852
Edger Power Trim	BA7906
Edger Power Trim 208	66777
Edger Power Trim 308	72710
Edger Power Trim 308	9001229
Edger Power Trim - PE265C	S685110015O8
Edger Power Trim 308	6caat1119102
Edger Power Trim Model 208-H	B79589
Edger Stick	9111088
Edger Stick	9111115
Edger Stick	9111978
Edger Stick	10013340
Edger Stick	6002219
Edger Stick - Echo	9092498
Edger Stick - Echo	60001916
Edger Stick - Echo	E291110023326
Edger Stick STIHL-FC-100	267090447
Edger Stick STIHL-FC-100	269791095
Edger Stick STIHL-FC-100	367090578
Edger Stick Echo-LE242	9111087
Edger Stick Echo-PE-261	6002515
Edger Trimmer - Model 308-H	B43973
Gator turf - John Deere	19342

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Description	Serial #
Gator turf - John Deere	19356
Gator turf - John Deere	W004X2X090777
Gator-John Deere	W04X2XD014093
Gator-John Deere	W04X2XD0142236
Gator-John Deere	W04X2XD014241
Gator-John Deere	W0TURFD002862
Gator-John Deere	W0TURFD003334
Gator-John Deere	W0TURFD0035691
Gator-John Deere	W0TURF019344
Gator-John Deere	W0TURFD003335
Gator-John Deere (Used)	W0TURD002841
Grinder Belly	
Grinder Dewal 41/2"	
Hedge Shear Echo	564811010220
Hedge Shear Echo	6006058
Hedge Shear Echo	6006770
Hedge Shear Echo	6006798
Hedge Shear Echo	6008575
Hedge Shear Echo	6008816
Hedge Shear Echo	6009894
Hedge Shear Echo	6009981
Hedge Shear Echo	6010099
Hedge Shear Echo	S693110057411
Hedge Shear Echo Extention	6004692
Hedge Shear Echo Extention	6008217
Hedge Shear Echo Extention	6014049
Hedge Shear Echo Extention	693110035291
Hedge Shear Echo Extention	569311004400

Description	Serial #
Hedge Shear Echo Extention	569311001274
Hedge Shear TMC	533404
Hedge Shear TMC	552890
Hedge Shear TMC	553495
Hedge Shears - ECHO HC233	6004549
Hedge trimmer	588853
Hedge trimmer	588854
Hedge trimmer	588867
Hedge trimmer	588901
Hedge Trimmer	1004793
Hedge Trimmer	1005229
Hedge Trimmer	1005236
Hedge Trimmer	1005485
Hedge trimmer	1005488
Hedge trimmer	1005490
Hedge Trimmer	11003249
Hedge Trimmer	S64811011231
Hedge trimmer	S693110088401
Hedge Trimmer	11001362
Hedge trimmer	588853
Hedge trimmer	5009808
Hedge Trimmer - 22.6cc	590924
Hedge Trimmer - Echo	5001832
Hedge Trimmer - Echo	6004017
Hedge Trimmer - Echo	S64811012945
Hedge Trimmer - Echo	S693110087771
Hedge Trimmer - Echo	6006213
Hedge Trimmer - Echo	18080090

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Description	Serial #
Hedge Trimmer - Echo	002923
Hedge Trimmer - Echo	5001087
Hedge Trimmer - Echo	S64811010440
Hedge Trimmer - Echo	S6481110509
Hedge Trimmer - Echo (black)	6002168
Hedge Trimmer - Echo (orange)	6001352
Hedge Trimmer - Echo (white)	6008220
Hedge Trimmer - Echo (yellow)	6006220
Hedge Trimmer - Echo Articulated Shaft	T43011001293
Hedge Trimmer - Echo Articulated Shaft	T43011001304
Hedge Trimmer - Echo Articulated Shaft	T43011001345
Hedge Trimmer - Echo Articulated Shaft	T43011001351
Hedge Trimmer - Echo Articulated Shaft	T43011001358
Hedge Trimmer - Echo Articulated Shaft	T43011001379
Hedge Trimmer - Echo stick	6006785
Hedge Trimmer - Extension	5009936
Hedge Trimmer - Extension	569311005497
Hedge trimmer - HC235	S64811010752
Hedge trimmer - HC235	S64811010803
Hedge trimmer - HCA265	S64811010603
Hedge trimmer - HCA265	S64811010791
Hedge trimmer - HCA265	S64811013249
Hedge trimmer - HCA265	S69311005493
Hedge trimmer - HCA265	S69311005498
Hedge trimmer - HCA265	S69311008876
Hedge trimmer - HCA265	S69311009043
Hedge Trimmer - Large	274102356
Hedge Trimmer - Long Stihl	272879981

Description	Serial #
Hedge Trimmer - Long Stihl	274102350
Hedge Trimmer - Redmax	41206912
Hedge Trimmer - Redmax	41207528
Hedge Trimmer - Shindawa	5280
Hedge Trimmer (black & white)	06008-7
Hedge Trimmer 22.6cc - PHT355OZ	595293
Hedge Trimmer 22.6cc - PHT355OZ	595314
Hedge Trimmer 30"	T08511002735
Hedge Trimmer 30" FWRAP	584337
Hedge Trimmer 30" FWRAP	584340
Hedge Trimmer Echo	T43011001952
Hedge Trimmer Echo	6003820
Hedge Trimmer Echo	6006771
Hedge Trimmer Echo	6008602
Hedge Trimmer Echo 30"	S64811011602
Hedge Trimmer Echo 30"	T08511001886
Hedge Trimmer Echo 30"	T08511001894
Hedge Trimmer Echo 30"	T08511003279
Hedge trimmer Echo Model HCA 261	6008321
Hedge Trimmer Extension - Echo	569111001057
Hedge Trimmer Extension - Echo	E291110022075
Hedge Trimmer Extension - Echo	E29111002258
Hedge Trimmer Extension - Echo	E29111002284
Hedge Trimmer Extension - Echo	S691110011019
Hedge Trimmer Extension - Echo	S85411001015
Hedge trimmer Redmax Model HT2-2400	41207698
Hedge Trimmer Stick - Kawasaki	39970
Hedge Trimmer1 Echo 25.4CC Articulated Shaft	80301400

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Description	Serial #
Hedge trimmer1 Echo 25.4CC Articulated Shaft-M	3693110024
Hedge trimmer1 Echo 25.4CC Articulated Shaft-M	569211003769
Hedge trimmer1 Echo 25.4CC Articulated Shaft-M	569311005041
Hedge trimmer1 Echo 25.4CC Articulated Shaft-M	569311005757
Hedge trimmer1 Echo 25.4CC Articulated Shaft-M	699311006612
Honda 4.1HP	C11597
Honda 4.1HP	C11599
Honda Engine HRC216K2HXA	1048355
Interseeder walk behind Ryan	92517128
John Deere 1200A Bunker and Field Rake	T01200A165419
Kaw W/Tarhead	286340
Kawasaki fe120 Pump 4.0	
Keyboard Terminal - Motorola	added 11/16/09
Laser - Shindaiwa	697975
Laser 48" - Exmark	473852
Laser 52" - Exmark	480140
Laser 52" - Exmark	no serial #
Lazer 50" 23HP Kaw - Exmark LHP23KA505	726393
Lazer 56" Exmark - Model# LHP23KA565	617327
Lazer 60" - Exmark 30HP w/dump system	641456/624012
Lazer 60" 29HP Kaw - Exmark LXS29LKA605	745059
Lazer 72'	654124
Lazer 72'	634022
Lazer 72" Exmark Ultravac	UV6672
Lazer 942230 ZT226 26hp kohler EFI 61" deck	94223000222
Lazer Exmark 52" - 27hp	872875
Lazer Exmark 52" - 27hp	LZZ27KC526
Lazer Exmark 52" Rider	290108

Description	Serial #
Laser 52" - Scag	FH680VB98531
Laser 56" - Exmark	657938
Laser 56" - Exmark	676013
Laser 72" - Exmark	69797
Laser 72" - Exmark	613906
Laser 72" - Exmark	N358061
Laser 72" mower	411300951
Laser XS 72" - Exmark	677887
Laser XS 72" - Exmark	697977
Lazer 23hp 56" LHP Kaw	699690
Lazer 29HP KAW 60" - Exmark LXS29LKA605	745070
Lazer 36" Exmark - Model# M15KA362	651011
Lazer Exmark 72" - 29hp	852748
Lazer Exmark 72" - 34hp	LZZ34KA726
Lazer Mower Bagging System	981286
Lazer mower ultravac	925180
Lazer-Z 29HP 72" - Exmark LXS29LKA725	728159
Lazer-Z 72" 34 hp Kawasaki	883156
Lazer-Z 72" 29 hp	613921
Lazer-Z 72" 29 hp	728129
Lazer-Z 72" Exmark	954373
Lazer-Z 72" Exmark	954374
Lazer-Z 72" Exmark	954375
Lazer-Z 72" Exmark	954386
Lazer 72" exmark lazer-z w/29HP	954371
Lazer 72" exmark lazer-z w/29HP	954372
Lazer 72" exmark lazer-z w/29HP	954380
Lazer 72" exmark lazer-z w/29HP	954381

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Description	Serial #
72" exmark lazer-z w/29HP	954382
72" much kit	
Lazor 52"	222842
Levy Broadcaster new	4800669
Lily spreader	232020000/9360692
Lily spreader tow behind	
Metro 36" W/Pist Grip	708499
Mower - 21" 6HP Kawasaki Sp-Exmark MSKA21	799797
Mower - 21" 6HP Kawasaki Sp-Exmark MSKA21	799798
Mower - 21" 6HP Kawasaki Sp-Exmark MSKA21	799799
Mower - 21" 6HP Kawasaki Sp-Exmark MSKA21	799800
Mower - Bobcat 218 Estate18HP Briggs 52" deck	94221101093
Mower - Bobcat 218 Estate18HP Briggs 52" deck	94221101370
Mower - Exmark "Lazer HP 50"	292002
Mower - Exmark "Lazer HP 50"	604495
Mower - Exmark "metro 21"	445996
Mower - Exmark "Navigator	35204014
Mower - Exmark 21" with new engine	446008
Mower - Exmark 36"	392595
Mower - Exmark 36" Model M15KA362	655254
Mower - Honda	S69039
Mower - Honda "Flail, reel	GC02-7030978
Mower - John Deere 3235C	C3235C020879-Tag49M0029
Mower - Maka-Honda 21'	102157
Mower - Maka-Honda 21'	1014168
Mower - tru cut P-20 reel	828805
Mower (Walk behind) Ex-Mark Model M3615KA	485930
Mower (Walk behind) Ex-Mark Model M3615KA	485955

Description	Serial #
Mower 12" Comm.S/P Hyd	MAKA1053206
Mower (Walk behind) Ex-Mark Model TT3615KA	497003
Mower 21'	647115
Mower 21" - Exmark	FJ180VF04437
Mower 21" - Ex-mark	267622291
Mower 21" - Honda	1052109
Mower 21" - Honda	M2AN620580
Mower 21" - John Deere	6xjs25c170834
Mower 21" - Metro	559923
Mower 21" - Toro	#260003887
Mower 21" Exmark 6PH kaw	745677
Mower 21" Honda	MZAN - 6203925
Mower 21" Kawasaki	6206583/FJ180VF76265
Mower 21" Metro SP-Exmark	662972
Mower 21" Push - Exmark-N6KA21B	647095
Mower 21" Push - Exmark-NFKA21	662969
Mower 26" - Metro	738046
Mower 36" - Exmark	485956
Mower 36" - Exmark	646087
Mower 36" Exmark	376648
Mower 36" Walk behinds - Exmark	229293
Mower 36" Walk behinds - Exmark	266229
Mower 36" Walk behinds - Exmark	297908
Mower 36" Walk behinds - Exmark	370429
Mower 36" Walk behinds - Exmark	561791
Mower 48" Rider - Exmark Model LHP4823	269543
Mower 50" ride on - Exmark	FH680vb71282
Mower 56' ride on - Exmark	617329

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Description	Serial #
Mower 60' ride on - Exmark	570013
Mower 60" Vericut PTO	VT08179-60
Mower 72" - Exmark Lazer mower"	53-191067
Mower 72" - Exmark Lazer mower"	N45794B
Mower Back behind 36" Metro 17HP KAW-M17K	824994
Mower Bobcat 218 52" Rider	94221101368
Mower BobCat 60" mulching	94223000215
Mower Bobcat Rider 52"	94001101366
Mower Bobcat Rider 60"	94000400146
Mower Bobcat Rider 60"	94222400144
Mower Ex-Mark - Rider Model LHP4820KC	567432
Mower Exmark 36" Walk behind	245407
Mower Exmark 36" Walk behind	262382
Mower Exmark 36" Walk behind	411449
Mower Exmark 36" Walk behind	658966
Mower Exmark 52" Lazer Rider	632938
Mower Exmark 52" Lazer Rider	676012
Mower Honda 21" HRC 216	1020425
Mower Honda 21" HRC 216	1026378
Mower Honda 21" HRC 216	1029172
Mower Honda 21" HRC 216	1052132
Mower Honda 21" HRC 216	1052469
Mower Honda 21" HRC 216	1053974
Mower Honda 21" HRC 216	1093834
Mower Honda 21" HRC 216	6139675
Mower Honda 21" HRC 216	6165055
Mower Honda 21" HRC 216	6175763
Mower Honda 21" HRC 216	6193150

Description	Serial #
Mower Honda 21" HRC 216	6193869
Mower Honda 21" HRC 216	6198154
Mower Honda 21" HRC 216	10083780
Mower Honda 21" HRC 216	HRC2163HXA
mower -Jacobsen LF-4677-7 gang reel - Kubota Tu	Model-ser67916-00001702
mower -Jacobsen Tri King 1900D 84" triplex -6704	D6623C0280
mower Jacobson 5-gang reel - LF3400	67868-1831
mower Jacobson 5-gang reel - LF3800	67867-2098
Mower Jacobson Tri-king - #00003801	67043
Mower John Deere 220 walk behind	g#49S0094 / M0220B2010302
Mower John Deere 2653A	653D140077 / Tag#49M0033
Mower John Deere 3235C	#49M0389 / TC3235C030423
Mower Kawasaki 21" 6.5hp	443300
Mower Kawasaki 21" 6.5hp	443301
Mower Kawasaki 21" 6.5hp	523206
Mower Kawasaki 21" 6.5hp	670627
Mower Model MMDEL TT3615	266144
Mower Ride Along 48" LHP 483 KA	514648
Mower Ride Along 52" LHP 483 KA	516897
mower transferred from Santa Ana 21" - Honda	MAKA1020157
mower walk behind 21" snapper - 7800372	2012866971
Mower Walk behind 21"-Model HRC216KSXA	MZAU-6162377
Mower Walk Behind 36" Model MMDEL TT3615	497062
mower walk behind reel-Tru cut reel mower	825330
Mower Walk behind-Model HRC216KSXA	MZAU-6141423
Mower Walk behind-Model HRC216KSXA	MZAU-6190475
Mower-2010 Real Master 5510	310000101
Overseeder - Model #OS1848 A19985	461801

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Description	Serial #
Pole pounder	
Power Wash DE-walt	67DX39G11
Power Washer - Steam X	1280002750
Pressure Washer - Husky	6548190
Pressure Washer Dual 2007	1100049564
Pressure Washer MI-T-M Model SP2703-OMHB	10220432
Pump - Home lite	10540726
Rake Used John Deere 1200H Hydro 3wd w/plow	
RakeUsed Smithco Super Star Hydro	
Reciprecator Red Max Model 6Z25N	6006294
Remote controllers rain master $1,100.00/each	
Rotor Tiller	FRC800
Rotor tiller - Honda 5 HP	1009422
Rototiller	T15266
Rototiller Barreto - 13H8	GCAKI-1026721
SCAG "Tiger Cub"	7690232
Shred Vac - Echo	6003971
Sod cutter 18"/Blue Bird - Honda	83669572
Sod cutter ryan	54494506735
Soil reliever	
Spray Can	476-1704
Spray Can	476-2003
Spray Can	476-2104
Sprayer - Hicks Model GX120	None
Sprayer - Lesco Commercial plus	1661201
Sprayer - Lesco Model 1520-17-18-RT	7045940C085Z20006
Sprayer - Solar Model 3-5	None
Sprayer Hicks farms supply (5330c-x)	00200-10004

Description	Serial #
Sprayer Lesco kawasaky	1607962
Sprayer Schaben	45690z
Sprayer Solo back pack	
Sprayer Toro Boom	90454
Spreader #80 SS Commercial	45256
Spreader & Sprayer Lesco "Ride on	1008900
Spreader commerical	091186A250X100233
Spreader commerical	091186E050x100097
Spreader commerical	091186E050X100140
Spreader commerical	091186H208X100358
Spreader Larger fert. (red)	
Spreader Manual Walk Behind - Lesco	
Spreader Manual Walk Behind - Priselawn CRB	
Spreader Manual Walk Behind - SPYKER 288-SUR	
Spreader Small fert. (red)	
Stump Grinder	1J9MA1218A1167152
sump pump	
Thatch attacher "old yellow deth	94100507
Tool to make hydraulic hoses	
Top dresser turf tiger	A20702
Top Dresser Turfco Walkbehind	85417/692121
Toro vacuum	07073-0008
Tractor - John Deere	Front loader W00520X014043
Tractor - John Deere 5210	LV52105123603
Tractor - John Deere A20816	LV52105123602
Tractor kubota - A0782	LB702
Tractor Kubota - L3131DT	50783
Trailer - John Deere	TC022BX010203

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Description	Serial #
Trencher - Lesco	IVRX05IE351001456
Trim Diesel Triplx 3WD	TC25530110625
Trimmer - Lesco	569311001162
Trimmer 25.4cc String - SRM265SC	S65911003952
Trimmer 25.4cc String - SRM265SC	S65911003968
Trimmer 25.4cc String-SRM2655C	S65911003949
Trimmer 25.4cc String-SRM2655C	S65911003965
Trimmer 25.4cc String-SRM2655C	S65911006174
Trimmer 25.4cc String-SRM2655C	S65911006230
Trimmer 25.4cc String-SRM2655C	S65911006275
Trimmer 25.4cc String-SRM280SC	S66611006304
Trimmer 25.4cc String-SRM280SC	S66611006398
Trimmer 26cc CA APRV	1001718
Trimmer 26cc CA APRV	11001736
Trimmer 27cc hd S. TFC	446060
Trimmer 34.4cc String-KPW3600VL	36100685
Trimmer 34.4cc String-KPW3600VL	36100686
Trimmer Articulating	9122580
Trimmer Articulating	9122819
Trimmer commercial string	T42211001112
Trimmer commercial string	T42211001144
Trimmer commercial string	T42211001169
Trimmer Commercial string -SRM-266sc	T42211001006
Trimmer Commercial string -SRM-266sc	T42211001012
Trimmer Commercial string -SRM-266sc	T42211001024
Trimmer Commercial string -SRM-266sc	T42211001034
Trimmer Commercial string -SRM-266sc	T42211001047
Trimmer Commercial string -SRM-266sc	T42211001054

Description	Serial #
Trimmer Echo	2001481
Trimmer Echo	6002118
Trimmer Echo	6013084
Trimmer Echo	6015047
Trimmer Echo	6015191
Trimmer Echo	6015267
Trimmer Echo	6016424
Trimmer Echo	6022453
Trimmer Echo	6047779
Trimmer Echo	56631279
Trimmer Echo	64811005685
Trimmer Echo	565911004181
Trimmer Echo String - SRM280SC	S66611005150
Trimmer Hedge - Echo HC235	S64811010395
Trimmer Hedge - Echo HC235	S64811010408
Trimmer Hedge - Echo HC235	S64811010577
Trimmer Hedge - Echo HC235	S64811010650
Trimmer Hedge - Echo HCA265	S69311001258
Trimmer Hedge - Echo HCA265	S69311003610
Trimmer Hedge - Echo HCA265	S69311004779
Trimmer Hedge - Echo HCA265	S69311004935
Trimmer Hedge - Echo HCA265	S69311004942
Trimmer Hedge - Echo HCA265	S69311005058
Trimmer Hedge - Echo HCA265	S69311005091
Trimmer Hedge - Echo HCA265	S69311005115
Trimmer Hedge - Echo HCA265	S69311005122
Trimmer Hedge - Echo HCA265	S69311005177
Trimmer Hedge - Echo HCA265	S69311005232

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Description	Serial #
Trimmer Hedge - Echo HCA265	S69311005254
Trimmer Hedge - Echo HCA265	S69311005282
Trimmer Hedge - Echo HCA265	S69311005492
Trimmer Hedge - Echo HCA265	S69311008883
Trimmer Hedge - Echo HCA265	S69311008903
Trimmer Hedge - Echo HCA265C	S69311004990
Trimmer Hedge - Echo HCA265C	S69311005233
Trimmer Line - Model 62087 Shindaiwa	6103803
Trimmer Line - Echo Model SRM 216T	06066537
Trimmer Line - Model 62117 Shindaiwa	8024481
Trimmer Line - Model 62119 Shindaiwa	7110427
Trimmer Line - Model T261 Shindaiwa	6093807
Trimmer Line - Model T261 Shindaiwa	7110428
Trimmer Line 1 Echo 25.4cc	C0801003674
Trimmer Line 1 Echo 25.4cc Model SRM2651	P02011001595
Trimmer Line 1 Echo 25.4cc Model SRM2651	866011005118
Trimmer Pole - Echo	5008537
Trimmer Pole - Echo	56911001130
Trimmer Pole - Echo	564811005347
Trimmer Pole - Echo	569111001127
Trimmer Shindawa	4011573
Trimmer Shindawa	5030469
Trimmer Shindawa	6045452
Trimmer Shindawa	6052647
Trimmer Shindawa	6052648
Trimmer Shindawa	6114245
Trimmer Shindawa	6114257
Trimmer Shindawa	7110475

Description	Serial #
Trimmer String	9100603
Trimmer String	9116170
Trimmer String	9116173
Trimmer String 25.1cc - Echo SRM265SC	S65911003451
Trimmer String 25.1cc - Echo SRM265SC	S65911003458
Trimmer String 25.1cc - Echo SRM265SC	S65911003513
Trimmer String 25.1cc - Echo SRM265SC	S65911003518
Trimmer String 25.1cc - Echo SRM265SC	S65911006270
Trimmer String 25.1cc - Echo SRM265SC	S65911006297
Trimmer String 25.1cc - Echo SRM265SC (broken	S65911003461
Trimmer String 25.4 cc - Echo SRM265SC	S65911003158
Trimmer String 25.4 cc - Echo SRM265SC	S65911003784
Trimmer String 33.3 - KPW3420ZL	80528 / 320565
Trimmer Shindawa	7110712
Trimmer Shindawa	8031139
Trimmer Shindawa	8031287
Trimmer Shindawa	8031288
Trimmer Shindawa	9022989
Trimmer Shindawa	9022990
Trimmer Shindawa	7110711
Trimmer Solid Shaft	1001395
Trimmer Solid Shaft	1001411
Trimmer Solid Shaft - Echo	no serial #
Trimmer String 33.3 - KPW3420ZL	80541 / 320564
Trimmer String Echo-SRM261S	6015183
Trimmer String Echo-SRM261S	6015214
Trimmer String Echo-SRM261S	6016156
Trimmer String Echo-SRM261S	6016637

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Description	Serial #
Trimmer String Echo-SRM261S	6016786
Trimmer String Echo-T282X/C	9022981
Trimmer String Echo-T282X/C	9022982
Trimmer Tension - Echo	6006392
Trimmer Tension - Echo	6006808
Turf Gator - Gas Ult Cart	1916
Turf Gator - Gas Ult Cart	W00TURF018472
Ultravac 60" - Exmark UV60	737517
Ultravac 60" - Exmark UV60	774221
Ultravac 66"/72" - Exmark UV6672	659068
Vacuum - Model BG845P	091698061
Vacuum Billy Goat	1290841
Vacuum Billy Goat	62606261
Verticore - John Deere 1500	
Verticore #1700 (sold to Eberhard for STM 1500)	a1395
Verticore Jacobsen Walk behind	825592361
Verticutter -Graden Swing Wing	
VIBE Plate, Honda GX160 with water tank	U-5380
Vucuum Honda	80805436
Water Pump - Honda	1100403
Water Pump - Honda	1102531
Water Tank Small	
Weed eater	25 / New #496060 (repaired)
Weed eater - Echo	1001534
Weed eater - Echo	6009591
Weed Eater - Echo	6016614
Weed eater - Echo	6016775
Weed eater - Echo	269413797

Description	Serial #
Weed Eater - Echo SRM 2615	6009976
Weed Eater - Shindaiwa	T268
Weed eater - Shindowa	5058847
Weed eater (black & white)	6028448
Weed eater 33.3cc Kaw w/taphead	286578
Weed eater 33.3cc Kaw w/taphead	286579
Weed eater 33.3cc Kaw w/taphead	286581
Weed Wacker - Echo	566311001657
Weed Wacker - Echo	566711005600
Weed Wacker - Echo	566911005573
Weed Wacker - Echo	5667111001405
Weed Wacker - Echo	no serial #
Weedeater - Echo	6008312
Weedeater - Echo (blue & gray)	No number
Weedeater - Echo (blue)	6009454
Weedeater - Echo (Blue)	6028575
Weedeater - Echo (Orange)	6008348
Weedeater - Shindowa (Red)	5058848
Weedeater - Shindowa (Red)	5058850
Weed eater - Echo	269413804
Weed Eater - Echo	E29111001978
Weed Eater - Echo	E29111002085
Weed Eater - Echo	E29111002091
Weed Eater - Echo	E29111002271
Weed Eater - Echo	E29211020671
Weed Eater - Echo	O6014135
Weed eater - Echo	5 (old)/S6931100509 (new #)
Weed eater - Echo	S66311001287

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Description	Serial #
Weed Eater - Echo	S663110016668
Weed eater - Echo	S663110017718
Weed Eater - Echo	S666110031118
Weed Eater - Echo	S667110054555
Weed Eater - Echo	S667110057628
Weed Eater - Echo	S667110057828
Weed eater - Echo	6015382
Weed eater - Echo (black)	6011323
Weed eater - Echo (green)	6014956
Weed eater - Echo (yellow)	6009427
Weed Eater - Echo SRM 2615	6006275
Weed Eater - Echo SRM 2615	6009440
Weed Eater - Echo SRM 2615	6009446
Weight Kit - Exmark 103-5633	103-5633
Weight Kit - Exmark 103-5633	
Weight Kit - Exmark 103-5633	
Weight Kit Front - Exmark	103-5629
Wheel 3.5 B&S 8"	2039
Wheel 3.5 B&S 8"	2035
Wheel Barrel - Jackson (blue)	
Wheel Barrow - True Temper	
Wire locator - 521P	
Wire Locator 521	

Report to City Council

TO:	Mayor and City Council
FROM:	Marshall Eyerman, Chief Financial Officer
AGENDA DATE:	February 7, 2017
TITLE:	APPROVE AND ADOPT THE REVISED DEBT MANAGEMENT POLICY

RECOMMENDED ACTION

Recommendation:

1. Approve and Adopt the revised Debt Management Policy.

SUMMARY

This report recommends the approval and adoption of the revised Debt Management policy. This policy was originally written and approved in 2006 with the last revision occurring in January 2014. Based on multiple actions by the Securities & Exchange Commission (SEC) and the California Debt and Investment Advisory Commission, the City's Debt Management policy is being revised to reflect current actions taken by the City, in compliance with the SEC's increased expectations applied to municipal issuers and their responsibility for continuing disclosure. The Debt Policy has been revised to include Section VIII Continuing Disclosure. This revision also includes the addition of paragraph G to Section V-Debt Standards and Structure which discusses the issuance of Tax-Exempt Bonds vs Taxable Bonds.

DISCUSSION

The Debt Management Policy was originally developed in 2006 and last revised in 2014. Debt management policies are considered a "best practice" by many professional municipal finance organizations including the Government Finance Officers Association, the California Society of Municipal Finance Officers and the Association of Public Treasurers of the United States and Canada. In recent years additional requirements have been placed on the issuers of municipal securities based on the input from oversight agencies such as the Securities & Exchange Commission (SEC), the Municipal Securities Rulemaking Board (MSRB), the California Debt and Investment

Advisory Commission, rating agencies and investors. The current revision addresses confirm the City's continued compliance with the SEC's expectations related to continuing disclosure requirements between the City and the investor community.

The revisions to address these new requirements resulted in the addition of a complete new section to the policy which is Section VIII Continuing Disclosure along with the addition of paragraph G to Section V Debt Standards and Structure to discuss the issuance of Tax-Exempt Bonds vs. Taxable Bonds. These revisions have been added at the recommendation of the City's bond financing team which is made up of our Bond Counsel, our Bond Underwriter and our Financial Advisor.

ALTERNATIVES

1. Approve Debt Management Policy as amended. *This alternative is recommended so that the City's policies and practices conform to the current debt management standards as established by municipal market oversight agencies.*

2. Not approve Debt Management Policy. *This alternative is not recommended since by not adding these provisions to the current policy it will be out of conformance with current standards established by municipal market oversight agencies.*

FISCAL IMPACT

No current fiscal impact. The failure to adopt these new Continuing Disclosure statements could result in a downgrade of the City's credit rating during future reviews and increase future borrowing costs.

NOTIFICATION

Public Notice

PREPARATION OF STAFF REPORT

Prepared By:
Brooke McKinney
Treasury Operations Division Manager

Department Head Approval:
Marshall Eyerman
Chief Financial Officer

CITY COUNCIL GOALS

Public Facilities and Capital Projects. Ensure that needed public facilities, roadway improvements, and other infrastructure improvements are constructed and maintained.

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**

3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

ATTACHMENTS

1. Debt Management Policy rev (red letter version)

APPROVALS

Budget Officer Approval	✓ Approved	12/06/16 5:22 PM
City Attorney Approval	✓ Approved	12/07/16 2:59 PM
City Manager Approval	✓ Approved	1/26/17 9:32 AM

DEBT MANAGEMENT POLICY

Purpose: The following debt policies were developed in an effort to standardize and rationalize the issuance and management of debt by the City of Moreno Valley and its component units. The policies apply to all direct debt issued by the City of Moreno Valley, including leases, debt guaranteed by the City, and revenue bonds issued by the City. The policies also apply, along with certain other previously adopted policies, to so-called no-commitment debt and to conduit debt of the City.

I. Introduction

A. The City's budget practices generally have been that operating revenues fully cover operating expenses, including debt service; established reserves meet minimum policy levels; "one-time" revenues are used to fund nonrecurring expenditures; and the prioritization of capital projects eligible for debt financing is accomplished through a "needs assessment" undertaken in the formulation and development of the City's Capital Improvement Budget.

B. The policies are divided into discrete sections relating to: the purposes and uses of debt by the City; the City's creditworthiness objectives; the standards and structure to be used in City debt issues; debt administration and process; criteria for selection of the debt consulting team; and, appendices which summarize the City's current debt portfolio and which provide the reader with a glossary of common terms used in the municipal debt sector.

C. Debt will only be undertaken when the City believes that the project revenues or specific resources will be available and sufficient to service the debt over its life. City debt will not be issued for periods exceeding the useful life or average useful lives of the project or projects to be financed. The policies establish criteria for internal, inter-fund borrowing.

D. Before issuing lease revenue debt or financing leases, the City will determine that the proposed facility is both necessary and desirable, and that no other financing method is practical to finance it. The City shall only use lease revenue debt or financing leases if the tests set forth in the policies are met.

E. The City seeks to maintain the highest possible credit ratings for all categories of short- and long-term direct debt that can be achieved without compromising delivery of basic City services and achievement of adopted City policy objectives.

F. The City will seek to structure debt with level principal and interest costs over the life of the debt.

G. As a matter of policy, no City department, agency, or sub-unit shall incur long-term debt in excess of $100,000 without the approval of the City Council. All requests to incur debt in excess of $100,000 will be presented by memorandum to the Chief Financial Officer/City Treasurer.

H. The City may sponsor conduit financings for those activities (i.e., economic development, housing, health facilities, etc.) that have a general public purpose and are consistent with the City's General Plan and with the City's overall service and policy objectives, as determined by the City Council. It shall be the City's policy to approve for conduit financing only those

Attachment: Debt Management Policy rev (red letter version) [Revision 1] (2372 : APPROVE AND ADOPT THE REVISED DEBT MANAGEMENT

projects that demonstrate a "significant public benefit." The City will require a deposit of its anticipated fees and expenses for any entity seeking financing through the City as a conduit.

I. The policies establish a Debt Management Team, comprised "ex officio" of the City Manager, the Chief Financial Officer/City Treasurer, and the City Attorney, or their respective designee(s). The Debt Management Team is authorized to provide advice to the City Council, the City Manager, the Chief Financial Officer/City Treasurer, and the various Departments of the City in all matters pertaining to the creation of debt. All direct or indirect debt of the City will be presented to the City Council's Finance committee for deliberation and recommendation prior to submittal to the full City Council. For all debt sales, the City will require that the action taken by the City Council to incur the debt will be taken as a regular business item, and at a regular or special City Council meeting, consistent with state law.

J. The City may engage an underwriter for a negotiated sale of debt through a competitive process administered by the City's Financial & Management Services Department based on the prior recommendation of the City's Debt Management Team.

K. All debt issued by the City will include a written opinion by bond counsel affirming that the City is authorized to issue the debt, stating that the City has met all statutory requirements necessary for issuance, and determining the federal income tax status of such debt. Bond counsel will be selected by the City Attorney based on the prior recommendation of the City's Debt Management Team.

L. While engagement of a financial advisor on each City debt issue is not required, it is strongly encouraged by the policies. The City may engage an external financial advisor through a competitive process administered by the City's Financial & Management Services Department based on the prior recommendation of the City's Debt Management Team.

M. Any unsolicited financing proposal to a City department, agency, or employee involving pledge or other extension of the City's credit through sale of securities, execution of loans or leases, marketing guarantees, or otherwise involving directly or indirectly the lending or pledging of the City's credit, shall be referred to the Financial & Management Services Department for review by the City's Debt Management Team prior to submittal to the City Council for approval.

N. "No commitment" debt is defined differently from conduit debt by the Governmental Accounting Standards Board ("GASB"). The City's no commitment debt is described in the exhibits to these Policies and in the notes to the City's financial statements. It consists generally of so-called "land secured debt" such as Mello-Roos or assessment district debt that indirectly benefits the City but for which the City has no financial commitment. Thus, this is "off balance sheet" debt which is afforded the same treatment as "conduit debt," but which bears different risks in the event of non-compliance with the borrowing agreements.

O. Conduit debt is debt issued by a government for the express purpose of providing capital financing for a third party that is not part of the issuing government's financial reporting entity. These obligations may bear the name of the City but are not legal obligations of the City.

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P. Regular, updated debt policies can be an important tool to insure the use of the City's resources to meet its commitments to provide needed services to the citizens of Moreno Valley and to maintain sound financial management practices. These Policies are therefore guidelines for general use, and allow for exceptions in extraordinary conditions. The Policies will have served their intended purpose if they stimulate an open debate about the City's existing and/or proposed debt position, and they lead to informed decision making by the City Council.

II. Purposes and Uses of Debt

A. Capital Financing – In General

1. The City normally will rely first on internally generated funds and/or grants and contributions from other governments to finance its capital needs. Debt will be issued for a capital project only in the case of emergency or when it is an appropriate means to achieve an equitable allocation of costs between current and future beneficiaries as determined by the City Council. Debt shall not, in general, be used for projects solely because insufficient funds are budgeted at the time of acquisition or construction. Debt will only be undertaken when the City believes that the project revenues or specific resources will be available and sufficient to service the debt over its life. Debt financing will not be considered appropriate for any recurring purpose such as operating or maintenance costs.

2. Capital improvements should be financed primarily through user fees, service charges, assessments, special taxes or developer exactions so long as the benefits the City will derive from such improvements can be attributed to the users of the improvements. Moreover, the City will specifically consider the costs associated with any borrowing in order to determine that the above funding sources are adequate to service the proposed debt. Accordingly, the Policies assume that development fees will be set at a level that is sufficient at all times to insure that new development pays its fair share of the cost of constructing new facilities in the community.

3. The City will evaluate the use of debt in-lieu of "pay-as-you-go" financing on the basis of the following criteria:

a. Factors favoring "Pay-as-You-Go" financing
- i. Current fund balances or project revenues are sufficient to fund the project
- ii. Existing or proposed debt levels would have a deleterious effect on the City's credit position or rating
- iii. Credit market conditions are unstable or present extraordinary difficulty in marketing the proposed debt

b. Factors favoring use of debt
- i. Revenues are deemed to be stable and reliable enough to support the proposed debt at investment grade rating levels

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ii. The nature of the financed project will support investment grade ratings
iii. Credit market conditions present favorable interest rates and demand for financings such as the City's
iv. The project being financed is mandated by the state or federal government and resources are insufficient or unavailable
v. The project being financed is immediately required to meet or relieve capacity needs and current resources are insufficient or unavailable
vi. The estimated useful life of the asset to be financed is greater than 5 years

B. Asset Life: The City will consider long-term financing for the acquisition, maintenance, replacement, or expansion of physical assets (including land) only if they have a useful life of at least five years. City debt will not be issued for periods exceeding the useful life or average useful lives of the project or projects to be financed.

C. General Obligation Debt

1. General obligation bonds provide the lowest borrowing costs for major public assets. The use of a general obligation pledge usually eliminates the need for a bond reserve and due to its high credit quality and the ability to levy a tax to repay it, produces borrowing terms and costs unavailable through other methods. Moreover, since the source of repayment of a general obligation bond is from proceeds of specific taxes, the City's operating funds and its operating position are not impacted by the issuance of general obligation bonds. Though the use of the term "general obligation bond" implies that the City's "full faith and credit" would be pledged to the repayment of the bond, the bond is actually repaid from an *ad valorem* tax on real property. Accordingly, the general obligation bond is more properly described as an "unlimited tax" bond.

2. Because of the absence of a limitation on the rate and amount of the tax that might be levied to pay a general obligation bond, state law and prudent finance practice require the submission of such a proposed debt to the electorate. Article XIII of the California Constitution requires that general obligation bonds be submitted to the voters for approval and that the issuance of such bonds be approved by a two-thirds vote.

3. *Ad valorem* property taxes affect various classes of taxpayers differently. Since the enactment of Proposition 13 in 1978, the increases in assessed value of real property have been limited for established property owners. This has the effect of disproportionately burdening newer property owners, who may have less wealth or taxpaying capacity than older, more established property owners. Moreover, business property owners, whose property turns over less frequently than residential property often benefit as a result of this phenomenon.

4. Cities in California may issue general obligation bonds only for the purpose of acquiring, improving or constructing real property. Accordingly, it shall be the

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City's policy to issue general obligation bonds only for such purposes and then only when the acquisition, improvement, or construction of the proposed real property will provide benefits to the community, in significant amounts, to both users and non-users of the facility.

D. Use of Lease Debt, Certificates of Participation or Financing Leases: Before issuing lease revenue debt or financing leases, the City will determine that the proposed facility is both necessary and desirable, and that no other financing method is practical to finance it. The City may use lease revenue debt or financing leases for those projects which are not sufficiently popular to obtain a two-thirds vote for the issuance of general obligation bonds or which must be financed at a time, or in a manner which do not permit the use of general obligation bonds. The City shall only use lease revenue debt or financing leases: if the project to be financed will generate positive net revenues after debt service; or if the project will significantly reduce City operating costs; or if an equal or greater amount of non-City matching funds will be lost if City's lease revenue or financing lease funds are not applied in a timely manner; or if the project to be financed is less than $1,000,000; or if the project to be financed provides essential City services or would so advance core City policy objectives that its value overrides the value of obtaining voter approval.

III. "No Commitment" and Conduit Debt

A. City as Issuer of "No-Commitment Debt" or Conduit Debt

1. The City may sponsor conduit financings for those activities (i.e., economic development, housing, health facilities, etc.) that have a general public purpose and are consistent with the City's overall service and policy objectives as determined by the City Council and with the City's General Plan. All conduit financings shall insulate the City completely from any credit risk or exposure and must first be approved by the Chief Financial Officer/City Treasurer and the City Manager before being submitted to City Council for authorization and implementation.

2. Each applicant for a conduit financing by the City will be required to provide an indemnity to the City, or its constituent agencies, for all costs, expenses, attorney fees, settlement or judgment costs arising out of the financing or any of the documentation relating to the financing.

B. Significant Public Benefit Test for Conduit Debt

1. It shall be the City's policy to approve for conduit financing only those projects that demonstrate a "significant public benefit." In general, "significant public benefit" means that the proposed project will enhance the economic, social or cultural quality of life for the residents of the City; or, that the proposed project will stimulate employment within the City; and, that such enhancement or employment gain can be measured in a manner which permits the City to evaluate the risks and rewards of acting as the conduit issuer. Significant public benefit will be based on the City's evaluation of the availability of public access to the widest possible number of residents of the City, depending on the context.

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2. Acceleration or addition of public infrastructure in excess of that required by law or the City's land use polices could also produce significant public benefit. Such benefits arise either from the installation or completion of public infrastructure assets prior to the time they might otherwise be installed or from the additional assets which might be realized as a result of being able to finance the project more efficiently.

3. Finally, the finding of significant public benefit can arise from the installation or acquisition of a community asset which produces additional employment opportunities or which produces environmental benefits either as a direct or secondary result of its completion. In circumstances where the financed improvements generate regional benefits, the finding of significant public benefit will be easier than in those where the financed facilities serve only a small number of residents. The process for approval of a conduit financing will generally require a two-step process. First, the Chief Financial Officer/City Treasurer and the City Manager will seek City Council direction and will establish the ground rules for evaluating the request. Requests for conduit financing which do not originate within the Financial & Management Services Department shall be forwarded to the Chief Financial Officer/City Treasurer or City Manager for transmittal to the City's Debt Management Team, which is described in Paragraph VI-A-2. Upon an evaluation by the Chief Financial Officer/City Treasurer and the City Manager, the matter will be referred back to the City Council for approval of the financing documents.

4. The City will require a financial pro forma and business plan for any project to be financed with the proceeds of a conduit issue. The City will impose a fee for acting as a conduit issuer of securities as shown in Appendix B hereto. The City will require an initial deposit of $20,000 for any entity seeking financing through the City as a conduit, which will be held by the City, and which the City may require additional deposits to, from time to time. The City's fees and costs will be charged against the initial or subsequent deposits, and any excess remaining at the time of issuance of the debt, or the abandonment of the project, whichever is applicable, will be refunded to the applicant.

C. Credit Quality of Conduit Debt

1. The City will consider conduit financing only for those applicants which are credit-enhanced or guaranteed so as to attain a rating of at least "A" from any one of the three major credit rating agencies. The City may consider a waiver of this requirement in special circumstances and upon the written recommendation of the City's Chief Financial Officer/City Treasurer. In cases where the City elects to waive this requirement, it specifically reserves the right to require the sponsor of such a conduit financing to use a private placement of the securities and to impose a "sophisticated investor" requirement acceptable to the City. In this context the concept of a "sophisticated investor" will be the standard imposed by federal securities law for private placements of corporate securities. In addition, the City will seek to limit the resale of the securities in one of the following ways: (1) the investor must agree to hold the securities to their respective maturity dates; or, (2)

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the investor must agree to secure a rating on the bonds of at least "A" before reselling them; or, (3) the investor must agree to resell the securities only (a) to another sophisticated investor who will also agree to sign a sophisticated investor letter, and (b) obtain the City's approval for such a resale. Selection of an individual criterion depends on the facts and circumstances of the particular sale, but restrictions 1 and 3 above are most suitable where the credit characteristics of the individual issue are expected to remain static. Issues that are expected to improve over time in credit characteristics are more appropriate for the application of rule number 2.

IV. Creditworthiness Objectives

A. Credit Ratings

1. The City of Moreno Valley seeks to maintain the highest possible credit ratings for all categories of short- and long-term direct debt that can be achieved without compromising delivery of basic City services and achievement of adopted City policy objectives. The City recognizes that there is a direct correlation between the credit rating it achieves and the cost of borrowing. Therefore, as a general rule, the City will seek to acquire and maintain an investment grade rating on all of its direct debt.

2. The City recognizes that external economic, natural, or other events may from time to time affect the creditworthiness of its debt. Nevertheless, the City is committed to ensuring that actions within its control are prudent and consistent with these Policies.

B. Financial Disclosure, Initial and Continuing

1. The City is committed to full and complete financial disclosure, and to cooperating fully with rating agencies, institutional and individual investors, City departments and agencies, other levels of government, and the general public to share clear, comprehensible, and accurate financial information. The City is committed to meeting secondary disclosure requirements as set forth in Securities and Exchange Commission Rule 15c2-12, and its amendments, on a timely and comprehensive basis. (See Section VIII– Continuing Disclosure for additional discussion.)

2. Official statements accompanying debt issues, Comprehensive Annual Financial Reports, and continuous disclosure statements will meet (at a minimum), the standards articulated by the Municipal Standards Rulemaking Board (MSRB), the Government Accounting Standards Board (GASB), the National Federation of Municipal Analysts, the Securities and Exchange Commission (SEC), and Generally Accepted Accounting Principles (GAAP). The Financial & Management Services Department is designated as the responsible party for ongoing disclosure to established national information repositories and for maintaining compliance with disclosure standards promulgated by state and national regulatory bodies and for compliance with continuing disclosure requirements required by contractual arrangements necessary to comply with Rule 15c2-12.

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C. Capital Planning: To enhance creditworthiness and prudent financial management, the City of Moreno Valley is committed to systematic capital planning, intergovernmental cooperation and coordination, and long-term financial planning. Evidence of this commitment to systematic capital planning will be demonstrated through adoption of an annual review of the City's capital improvement budget and its ten-year capital improvement plan budget.

D. Debt Limits: The City will keep outstanding debt within the limits prescribed by State statute and at levels consistent with its creditworthiness objectives. In the case of debt serviced from the City's General Fund, the City will observe a guideline of 7% of the amounts budgeted for expenditures and transfers out as the "ideal" level for General Fund resources committed to the repayment of debt.

V. Debt Standards and Structure

A. Term of Debt: Debt will be structured for the shortest period consistent with a fair allocation of costs to current and future beneficiaries or users. The implication of this policy will generally require that debt be issued only for a time period that is consistent with the life span of the project for which the debt was issued.

B. Debt Structure

1. Debt will be structured to achieve the lowest possible net cost to the City given market conditions, the urgency of the capital project, and the nature and type of security provided. Moreover, to the extent possible, the City will design the repayment of its overall debt so as to recapture rapidly its credit capacity for future use. The City shall strive to repay at least 20 percent of the principal amount of its general fund supported debt within five years and at least 40 percent within ten years as these measures are used by the major national credit rating agencies to determine the creditworthiness of the City. In applying the 20% and 40% tests, the debt repayment amounts are non-cumulative, that is, the goal is to have all of the City's general fund debt structured so as to achieve a reduction in principal of 20% at the five year mark and 40% at the ten year mark. Individual issues will be structured so that the new debt is retired using a level debt service (sometimes called "mortgage amortization") retirement schedule.

2. Individual issues may be structured using either serial bonds or term bonds. In the case of issues structured with term bonds, the City will use a sinking fund to retire the term bonds. A sinking fund is the mechanism whereby money is accumulated on a regular basis in a separate account for the purpose of redeeming the term bonds when due. The sinking fund monies are typically applied to redeem bonds on an annual basis in amounts that would result in approximately level debt service requirements.

3. The City will not issue debt that commences principal payment beyond the fiscal year in which the financed asset is completed or is substantially available to the City. Capitalized interest may be used in the debt structure, but only to the extent

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necessary to accommodate the deferral of principal to the point of substantial availability to the City.

C. Amortization

1. The City will seek to structure debt with level principal and interest costs-over the life of the debt. So-called "back-loading" of debt service will be considered only when natural disasters or extraordinary or unanticipated external factors make the short-term cost of the debt prohibitive, when the benefits derived from the debt issuance can clearly be demonstrated to be greater in the future than in the present, when such structuring is beneficial to the City's overall amortization schedule, or when such structuring will allow debt service to more closely match project revenues during the early years of the project's operation.

2. In the case of an issue structured with term bonds and a sinking fund, the City's policy will be to retire the term bonds in substantially level fashion over each year of the life of the sinking fund unless the factors described above apply.

D. Variable Rate Debt**:** The City may choose to issue securities that pay a rate of interest that varies according to pre-determined formula or results from a periodic remarketing of the securities, consistent with state law and covenants of pre-existing bonds, and depending on market conditions. The City may elect to control its interest rate exposure on variable rate debt through the use of financial products designed to offset such risks, but only upon the expressed approval of the Chief Financial Officer/City Treasurer.

E. Subordinate Debt: The City shall issue subordinate lien debt only if it is financially beneficial to the City and is consistent with the City's creditworthiness objectives as set forth in Paragraph IV-A, "Credit Ratings." Generally, subordinated debt is that debt which has a lien position on an asset or revenue stream that is junior in position to another debt issues. Examples could include leases that are junior in payment obligation to senior leases.

F. Non-Traditional Financial Products: The City will consider the use of non-traditional financial products on a case by case basis and consistent with state law and financial prudence. Examples of such non-traditional products include: interest rate swaps, interest rate caps and collars, "synthetic" refunding transactions and float contracts. Use of non-traditional financial products will only be undertaken upon written recommendation of the Chief Financial Officer/City Treasurer and concurrence by the City Council.

G. Tax-Exempt vs. Taxable Bonds: The City generally seeks to issue debt at the lowest total cost. Generally this objective is achieved through the issuance of tax-exempt debt which can be offered at lower interest rates since investors get the additional benefit of the tax break. The Internal Revenue has established guidelines which must be met for municipal bond issuances to qualify for the tax-exempt status. (For a more detailed discussion of this issue please see IRS Publication 4079 – Tax-Exempt Government Bonds). One of the relationships that can interfere with the City's ability to issue under the tax-exempt status is the area of Management and Service Contracts. When entering into these types of contracts it is recommended that the City involve bond counsel to ensure that the language does not

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impact the ability of the City to issue tax-exempt debt related to the impacted facilities or improvements.

H. Refunding

1. Periodic reviews of all outstanding debt will be undertaken to determine refunding opportunities. Refunding will be considered (within federal tax law constraints) if and when there is a net economic benefit of the refunding or the refunding is essential in order to modernize covenants essential to the City's financial or operating position.

2. In general, advance refundings for economic savings will be undertaken when net present value savings of at least five percent (5%) of the refunded debt can be achieved. Current refundings that produce net present value savings of less than five percent will be considered on a case-by-case basis, provided that the present value savings are at least three percent (3%) of the refunded debt. Refundings with savings of less than three percent (3%), or with negative savings, will not be considered unless there is a compelling public policy objective. The measurement of the 3% or 5% savings may, but is not required, to consider benefits to the City from sources other than the proposed bond transaction, if deemed appropriate by the City's Debt Management Team.

I. Short-Term Borrowings: Use of short-term borrowing, such as bond anticipation notes (BANs), tax and revenue anticipation notes (TRANs), tax-exempt commercial paper and other similar short-term borrowing vehicles will be undertaken only if the transaction costs plus interest of the debt are less than the cost of internal financing, or available cash is insufficient to meet working capital requirements. The City will not employ the use of such borrowings solely for the purpose of earning arbitrage profits.

J. Credit Enhancements: Credit enhancement (letters of credit, bond insurance, etc.) will be used to the extent that net debt service on the bonds is reduced by more than the costs of the enhancement, measured in present value terms. In order to calculate the economic effectiveness of a credit enhancement, the City will compare the present worth of the debt service required on the proposed transaction on both an enhanced and unenhanced basis to determine the economic benefits of the enhancement offered. Credit enhancement which does not produce economic benefits, in present value terms, will be considered only if acceptance of the enhancement directly furthers other City goals and objectives.

VI. Debt Administration and Process

A. All Debt to be Reviewed by City's Debt Management Team

1. No City Department, agency, or sub-unit shall incur long term debt of more than $100,000 without the approval of the City Council. Indebtedness is generally any obligation of the City to pay money in the future with a stated maturity of longer than nine months. All requests to incur long term debt of more than $100,000 and with a stated maturity of longer than nine months will be presented by memo from the requesting Department, through the Chief Financial Officer/City Treasurer, to

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the City's Debt Management Team. The memo shall specify the purpose of the borrowing, any options for financing the project without borrowing, and specific sources of payment of debt service. This policy is not intended to be an impediment to the purchase of goods or services, or the contracting for such goods or services by the City in the normal course of business.

2. The Debt Management Team will be comprised "ex officio" of the City Manager, the Chief Financial Officer/City Treasurer and the City Attorney, or their respective designee(s). The City Manager may appoint additional members to the Debt Management Team on an ad hoc basis as individual circumstances warrant. The Debt Management Team is authorized to provide advice to the City Council, the City Manager, the Chief Financial Officer/City Treasurer, and the various Departments of the City in all matters pertaining to the creation of debt. The Chief Financial Officer/City Treasurer has responsibility for the oversight and periodic review of these Policies, and will recommend amendments from time to time to the City Council. All direct and indirect debt of the City and its component units will be presented to the City Council's Finance Committee for deliberation and recommendation prior to submittal to the full City Council.

B. Investment of Bond Proceeds

1. All general fund supported and revenue bond proceeds shall be invested as part of the City's consolidated pool, using appropriate trust fund accounting procedures, unless otherwise specified by law or the controlling bond documents and approved in advance by the Chief Financial Officer/City Treasurer. Investments will be consistent with those authorized by existing state law and by the City's investment policy

2. It will also be the City's policy to select investment advisors, if appropriate to the facts and circumstances of an individual borrowing or borrowing program, on a basis similar to that which it uses to engage investment advisors for its investment portfolio. The City will execute the investment directives for bond proceeds through the applicable trustee for such proceeds.

C. Costs and Fees

1. All costs and fees related to issuance of bonds will be paid out of bond proceeds. In the case of conduit financings, the City may require prepayment for certain costs and fees from the project applicant(s). Under certain extraordinary circumstances, the City may authorize the expenditure of City funds for the engagement of outside counsel or consultants for the purpose of assisting the City with the feasibility analysis of the contemplated debt. It is intended that any expenditure for such purposes would be in anticipation of, or reliance upon, reimbursement by a project applicant for such expenses.

2. Should the proposed debt issue be abandoned prior to its completion, the City will retain any deposits or prepayments in amounts necessary to insure that its costs, both direct and indirect, are fully recovered.

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D. Method of Sale

1. In general, City debt will be issued through a competitive bidding process. Bids will be awarded on a true interest cost basis (TIC), providing other bidding requirements are satisfied. In such instances where the City in a competitive bidding deems the bids received unsatisfactory, it may, at the election of the Chief Financial Officer/City Treasurer, enter into negotiation for sale of the securities.

2. Negotiated sales of debt will be considered in circumstances when the complexity of the issue requires specialized expertise, when a change of underwriter may result in losses (for example, changing the remarketing agent in mid-program for variable rate debt), when the negotiated sale would result in substantial savings in time or money, or when market conditions or City credit are unusually volatile or uncertain. Only the Chief Financial Officer/City Treasurer shall make such a determination.

E. Council Action to be Regular Business Item, Not Consent Calendar: For all debt sales, the City will require that the action taken by the City Council to incur the debt will be taken as a regular business item, and at a regular or special City Council meeting, consistent with state law. Generally, it shall be the City's policy to submit the proposed debt issuance to the City Council in a study session wherever possible prior to submittal to the full City Council as an action item.

VII. Underwriters, Consultants and Counsel

A. Underwriters

1. For all competitive and negotiated sales, underwriters will be required to demonstrate sufficient capitalization and experience related to the debt. The City may engage an underwriter for a negotiated sale of debt through a competitive process administered by the City's Financial & Management Services Department based on the prior recommendation of the City's Debt Management Team. The utilization of the underwriter for a particular bond sale will be at the discretion of the Financial & Management Services Department and pursuant to a written underwriting agreement.

2. The selection process for underwriters will require that the selected underwriter have comprehensive municipal debt experience, experience with diverse financial structuring requirements and strong distribution capabilities for municipal securities. Upon completion of the underwriter's engagement, the City has the option of making a new arrangement with any existing underwriter.

B. Payment of Underwriter's Counsel Fees**:** City payments for underwriter's counsel in negotiated sales will be authorized by the Financial & Management Services Department on a case by case basis depending on the nature and complexity of the transaction and the needs expressed by the underwriters.

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C. Bond Counsel: The City will retain external bond counsel for all debt issues and such retainer will be evidenced by a contract with the selected firm(s). All debt issued by the City will include a written opinion by bond counsel affirming that the City is authorized to issue the debt, stating that the City has met all statutory requirements necessary for issuance, and determining the federal income tax status of such debt. Bond counsel will be selected by the City Attorney based on the prior recommendation of the City's Debt Management Team. The selection process will require comprehensive municipal debt experience and clearly demonstrated skill and capabilities in the municipal bond sector and with the type of financing proposed. Upon expiration of a specific contract, the City has the option of signing a new contract with its existing bond counsel.

D. Disclosure Counsel: In certain instances, the City may choose to engage the services of a disclosure counsel for the purposes of assisting in the various aspects of the preparation of an official statement, private placement memorandum or other form of offering, disclosure or continuing disclosure document to be disseminated in connection with the sale of the City's debt or conduit debt. In performing these services, the disclosure counsel is clearly representing the City, as the issuer of the debt, and not the underwriter as well, as is the case where underwriter's counsel prepares such documents. Because disclosure counsel is engaged by the City, the cost of disclosure counsel's services is typically paid from the proceeds of the debt issue, and may be structured as either hourly charges or fixed fees, depending on the circumstances.

E. Financial Advisor

1. The utilization of the financial advisor for particular bond sales will be at the discretion of the Financial & Management Services Department on a case by case basis and pursuant to a written financial advisory service contract. While engagement of a financial advisor on each City debt issue is not required, it is strongly encouraged. In particular, the services of a financial advisor will be used on all competitive sales of City debt as well as those negotiated issues that present unique structuring, marketing or credit circumstances.

2. The City may engage an external financial advisor through a competitive process administered by the City's Financial & Management Services Department based on the prior recommendation of the City's Debt Management Team. The selection process for financial advisors will require that the selected financial advisor have comprehensive municipal debt experience, experience with diverse financial structuring requirements and strong pricing capabilities for determining the fairness of the prices received by the City for its debt issues. Upon completion of the financial advisor's engagement, the City has the option of making a new arrangement with any existing financial advisor.

3. For each engagement the financial advisor will provide services to the Chief Financial Officer/City Treasurer and such other departments of the City as may be designated by the Chief Financial Officer/City Treasurer pursuant to an agreed upon scope of services to be negotiated with the Chief Financial Officer/City Treasurer.

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F. Fiscal Agents, Paying Agents and Trustees: The Financial & Management Services Department will utilize a fiscal agent, paying agent or trustee on all City indebtedness, as may be required by the type of debt instrument being used. Fees for such services on outstanding bonds will be paid from the resources of the department or program supporting the debt service on the instrument, unless specified otherwise by the Chief Financial Officer/City Treasurer. The City's Financial & Management Services Department will administer the review and journalizing of transactions from monthly statements furnished by the fiscal agent, paying agent or trustee, as the case may be.

G. Compensation for Services: Compensation for bond counsel, underwriter's counsel, financial advisors, and other financial service providers will be consistent with industry standards.

H. Selection Process: The Chief Financial Officer/City Treasurer shall make all final determinations of selection for underwriters, and financial advisors based on the recommendation of the City's Debt Management Team. The determination will be made following an independent review of competitive bids or responses to requests for proposals (RFPs) or requests for statements of qualifications (RFQs). The City's Debt Management Team will review the proposals or statements of qualifications. The City's financial advisors at the direction of the Chief Financial Officer/City Treasurer may also review underwriter proposals.

I. Other Service Providers: The Chief Financial Officer/City Treasurer shall have the authority to periodically select other service providers (e.g., escrow agents, verification agents, trustees, arbitrage consultants, assessment engineers, special tax consultants, investment advisors etc.) as necessary to meet legal requirements and minimize net City debt costs. The Chief Financial Officer/City Treasurer may select firm(s) to provide such financial services related to debt without a RFP or RFQ, consistent with City requirements. A firm so selected must receive Chief Financial Officer/City Treasurer approval before undertaking any transaction or providing any service.

VIII. Continuing Disclosure

A. Background

Pursuant to SEC Rule 15c2-12 (the "Rule"), issuers of obligations are required under most circumstances to provide financial and operating information on an annual basis with the Municipal Securities Rulemaking Board (MSRB) using the Electronic Municipal Market Access system (EMMA). The City of Moreno Valley, California (the "City"), the Moreno Valley Public Financing Authority, the Successor Agency to the Moreno Valley Redevelopment Agency and certain community facility districts and assessment districts (collectively, the "Moreno Valley Issuers") have issued or may issue obligations which are covered by the Rule (the "Obligations") and must comply with any required filings in a timely manner. These Policies and Procedures are intended to assure that all filings required under the Rule are made timely and completely and meet all requirements of the Rule. The Moreno Valley Issuers have covenanted or will covenant to comply with the Rule through the execution and delivery of continuing disclosure agreements or certificates (each, a "Continuing Disclosure Undertaking") applicable to each issue of Obligations.

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The Rule requires that an underwriter, prior to purchasing or selling an issue of obligations in connection with a covered offering, determine that the issuer, and any other "Obligated Person" (as defined in the Rule) for whom financial or operating data is presented in the official statement, has undertaken in writing to provide the following information to the MSRB using EMMA and to the appropriate state information depository ("SID"), if any:

1. By a specified date, annual financial and operating information for each Obligated Person for whom financial information or operating data is presented in the official statement (an "Annual Information Filing").

2. By a specified date, if available, audited annual financial statements for each Obligated Person ("Audited Financial Statements") and, if not available by the date required, unaudited financial statements with Audited Financial Statements.

3. In a timely manner within 10 business days of occurrence, notice of the occurrence of one or more of the listed events described in the Rule (a "Rule 15c2-12 Event Notice"). See paragraph VIII-G for the listing of events.

4. Not less than 30 days before the submission date, the Responsible Party shall prepare a draft submission of required financial and operating information, highlighting any information still unavailable.

5. In a timely manner, notice of a failure of any Obligated Person required to make the Annual Information Filing and/or file the Audited Financial Statements on or before the date(s) specified in the Continuing Disclosure Undertaking ("Notice of Failure").

Note: There is no SID currently in the State of California. If the State of California should establish a SID, the Moreno Valley Issuers may also be required to file all required information with the SID depending on the contractual requirements of their previous Continuing Disclosure Undertakings

B. Responsible Party; Maintenance of List and Files

The Responsible Party for the Moreno Valley Issuers shall be the Chief Financial Officer/City Treasurer for the City and any alternate or assistant as the Chief Financial Officer/City Treasurer shall appoint. The Responsible Party shall maintain a current list for each fiscal year identifying each issue of Obligations of any Moreno Valley Issuer outstanding during such fiscal year setting forth the name, original principal amount, date of issuance and CUSIP numbers for each such issue, the dates by which the Annual Information Filings and the Audited Financial Statements are required to be submitted to the MSRB using EMMA and the current contact information for the dissemination agent (if any) with respect to such Continuing Disclosure Undertaking, such list to be accompanied by copies of the related Continuing Disclosure Undertakings.

C. Annual Information Filing Requirements

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The Responsible Party shall be knowledgeable and familiar with the provisions of each Continuing Disclosure Undertaking as to the type, format and content of the financial and operating information to be included in each Annual Information Filing to be made thereunder and the timing requirements for the filing thereof. The submission dates for the Continuing Disclosure Undertakings vary and in some cases require the filing of annual reports as early as the last day of December in each year following (or, in some cases, within 180 days following) the close of the Moreno Valley Issuers' fiscal year which is currently June 30.

D. Audited Financial Statements

Audited Annual Financial Statements of the Moreno Valley Issuers are also required to be filed no later than the submission dates established under each Continuing Disclosure Undertaking. The Responsible Party shall be knowledgeable and familiar with the specific timing requirements for the filing of Audited Financial Statements and, if not available by the date(s) required, the provisions regarding the filing of unaudited financial statements under the terms of each Continuing Disclosure Undertaking.

E. Notices of Failures to File

The Responsible Party shall be knowledgeable and familiar with the specific requirements for the filing of a Notice of Failure to make Annual Information Filings and/or to file Audited Financial Statements by the date(s) required under the terms of each Continuing Disclosure Undertaking.

F. Preparation

Approximately 90 days before the submission date for required filings established under each Continuing Disclosure Undertaking, the Responsible Party shall initiate the process of preparing the financial and operating information required to be submitted thereunder. The Responsible Party shall assemble the information available at that time and determine the scope of additional information to be required and also contact the auditors to establish a schedule for completion and submission for the Audited Financial Statements.

1. Not less than 30 days before the submission date, the Responsible Party shall prepare a draft submission of required financial and operating information, highlighting any information still unavailable.

2. On or before the submission date established under each Continuing Disclosure Undertaking, the Responsible Party shall make the Annual Information Filing together with the Audited Financial Statements. If the Audited Financial Statements are not then available, unaudited financial information shall be filed with the MSRB using EMMA and the Audited Financial Statements shall be filed within 10 business days of their receipt and acceptance.

3. The Responsible Party shall set calendar reminders in the City Finance Department's recordkeeping systems.

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G. Listed Events

The Rule also requires filing of a Rule 15c2-12 Event Notice upon the occurrence of certain listed events described in the Continuing Disclosure Undertakings. The Responsible Party shall provide a Rule 15c2-12 Event Notice to the MSRB using EMMA within 10 business days of occurrence of any such listed event. The list is as follows: (The listed events most likely to occur relate to bond redemptions or defeasances of outstanding issues and rating changes.)

1. Principal and interest payment delinquencies
2. Non-payment related defaults
3. Unscheduled draws on debt service reserves reflecting financial difficulties
4. Unscheduled draws on credit enhancements reflecting financial difficulties
5. Adverse tax opinions, IRS notices or material events affecting the tax status of the security
6. Modifications of rights of security holders **(if material)**
7. Bond calls **(if material)**
8. Defeasances
9. Release, substitution or sale of property securing repayment of the securities **(if material)**
10. Rating changes
11. Tender offers
12. Bankruptcy, insolvency, receivership or similar event of the obligated person
13. Merger, consolidation, or acquisition of the obligated person **(if material)**
14. Appointment of a successor or additional trustee, or the change of name of a trustee **(if material)**
15. Other voluntary disclosure as listed in the Rule

H. Familiarity with EMMA Submission Process

1. The Responsible Party shall register with EMMA and review the on-line process of filing with EMMA located at www.emma.msrb.org in order to submit the required information. The MSRB market Information Department can also be contacted at (703) 797-6668. A tutorial is available at the website and a practice submission is available as well.

2. The Responsible Party also shall enroll the Moreno Valley Issuers in EMMA's reminder system to ensure timely performance of their responsibilities and obligations.

I. California Debt and Investment Advisory Commission (CDIAC)

1. With the passage of Senate Bill 1029 (Hertzberg) which became effective January 1, 2017, the Responsible Party will prepare and submit an annual report by January 31 of each year for the previously completed fiscal year. The report will be submitted by the method approved by CDIAC.

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2. This annual report prepared annually for CDIAC will include the following data elements (these requirements can be found in section 8855(k) of the California Government Code):
   - **a.** Debt authorized during the reporting period, which shall include the following:
     - i. Debt authorized at the beginning of the period
     - ii. Debt authorized and issued during the reporting period
     - iii. Debt authorized but not issued at the end of the reporting period
     - iv. Debt authority that has lapsed during the reporting period
   - **b.** Debt outstanding during the reporting period which will include:
     - i. Principal balance at the beginning of the reporting period
     - ii. Principal paid during the reporting period
     - iii. Principal outstanding at the end of the reporting period
   - **c.** The use of proceeds of issued debt during the reporting period which shall include:
     - i. Debt proce3eds available at the beginning of the reporting period.
     - ii. Proceeds spent during the reporting period and the purpose for which it was spent.
     - iii. Debt proceeds remaining at the end of the period.

J. Training Efforts

To ensure adequate resources to comply with the Rule, the Responsible Party shall develop a training process aimed at providing additional assistance in preparing required information. The training process shall be conducted at least annually and shall encompass a review of the EMMA submission process and an understanding of the timing requirements necessary for full compliance.

K. Coordination Effort

The Responsible Party shall coordinate the preparation and submission of the required information with the Financial Advisor. Special Tax Consultant and corporate trustees and paying agents to ensure full compliance with the requirements of the Rule and the Continuing Disclosure Undertakings.

L. Records Retention

The Responsible Party shall maintain records with respect to the filings with the MSRB using EMMA, including, but not limited to, EMMA posting receipts showing the dates and nature or contents of all filings for each issue of Obligations of any Moreno Valley Issuer outstanding during each fiscal year.

M. Investor Communication

While the City shall post its annual financial report as well as other financial reports on the City's website, this information is intended for the citizens of the City of Moreno Valley.

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Information with the intention of reaching the investing public, including bondholders, rating analysts, investment advisors, or any other member of the investment community will be filed on the EMMA system. Information similar to that posted on EMMA will be included on the City's website under the Investor Relations tab.

IX. Other Policies

A. Arbitrage Compliance: The Financial & Management Services Department shall maintain a system of record keeping and reporting to meet the arbitrage rebate compliance requirements of the Federal Tax Code.

B. Unsolicited Financing Proposals: Any unsolicited financing proposal to a City department, agency, or employee involving pledge or other extension of the City's credit through sale of securities, execution of loans or leases, marketing guarantees, or otherwise involving directly or indirectly the lending or pledging of the City's credit, shall be referred to the Financial & Management Services Department for review by the City's Debt Management Team prior to submittal to the City Council for approval.

C. Internal Borrowings

1. Provided that sufficient resources are available, liquidity will not be impaired, and a defined source of repayment is available, the City will generally favor internal borrowings over external borrowings for short-term liquidity purposes. The Financial & Management Services Department may undertake inter-fund borrowings and such borrowings will be evidenced by a written memorandum or agreement specifying the tenor and terms of the borrowing, including repayment terms, interest rates and calculations and procedures for amendment and must have the approval of the City Council, except for fiscal year end accounting entries that create temporary loans for financial statement presentation purposes. Any internal borrowing must be first coordinated with the responsible managing department. For example, the internal borrowings affecting the City's successor agency or Community Development Block Grant funds should be coordinated with the Community and Economic Development Department. All such inter-fund borrowings will be reflected in the City's accounting records as "due to" and "due from" items respecting the funds and accounts borrowed from and loaned to, respectively.

2. Inter-fund borrowing will typically bear interest at the rate being borne by the Local Agency Investment Fund ("LAIF") administered by the California State Treasurer's Office, unless specifically recommended otherwise by the Chief Financial Officer/City Treasurer.

D. Post Issuance Tax Compliance

1. The purpose of these Post-Issuance Tax Compliance Procedures is to establish policies and procedures in connection with tax-exempt bonds or obligations (whether in the form of bonds, certificates of participation, installment sale contracts, leases or other financing structures) and other tax-advantaged bonds or

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obligations, if any (e.g. "build America bonds" or direct pay subsidy bonds) (collectively, the "Bonds") issued for the benefit of the City of Moreno Valley (the "City") so as to ensure that the City complies with all applicable post-issuance requirements of federal income tax law needed to preserve the tax-exempt or special tax status of the Bonds.

2. General

a. Ultimate responsibility for all matters relating to City financings and re-financings rests with the City's Chief Financial Officer/City Treasurer (the "Responsible Officer") or such other person or persons as the Responsible Officer shall designate.

3. Tax Compliance Requirements

a. External Advisors / Documentation

i. The Responsible Officer and other appropriate City personnel shall consult with bond counsel and other legal counsel and advisors, as needed, throughout the Bond issuance process to identify requirements and to establish procedures necessary or appropriate so that the Bonds will continue to qualify for the appropriate tax status. Those requirements and procedures shall be documented in a City resolution(s), Tax Certificate(s) and/or other documents finalized at or before issuance of the Bonds. Those requirements and procedures shall include future compliance with applicable arbitrage rebate and yield restriction requirements and all other applicable post-issuance requirements of federal tax law throughout (and in some cases beyond) the term of the Bonds.

ii. The Responsible Officer and other appropriate City personnel also shall consult with bond counsel and other legal counsel and advisors, as needed, following issuance of the Bonds to ensure that all applicable post-issuance requirements, in fact, are met. This shall include, without limitation, consultation in connection with future contracts with respect to the use or management of Bond-financed assets.

iii. Whenever necessary or appropriate, the City shall engage expert advisors (such as a "Rebate Service Provider") to assist in the calculation of arbitrage rebate which may be payable in respect of the investment of Bond proceeds.

b. Role of the City

i. Unless otherwise provided by City resolutions, unexpended Bond proceeds shall be held by the City, and the investment of Bond proceeds shall be managed by the Responsible Officer. The

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Responsible Officer shall maintain records and shall prepare regular, periodic statements to the City regarding the investments and transactions involving Bond proceeds.

ii. If a City resolution provides for Bond proceeds to be administered by a trustee, the trustee shall provide regular, periodic (monthly) statements regarding the investments and transactions involving Bond proceeds.

c. Arbitrage Rebate and Yield

i. Unless a Tax Certificate documents that bond counsel has advised that arbitrage rebate will not be applicable to an issue of Bonds:

a.) the City shall engage the services of a Rebate Service Provider, and the City or the Bond trustee shall deliver periodic statements concerning the investment of Bond proceeds to the Rebate Service Provider on a prompt basis;

b.) upon request, the Responsible Officer and other appropriate City personnel shall provide to the Rebate Service Provider additional documents and information reasonably requested by the Rebate Service Provider;

c.) the Responsible Officer and other appropriate City personnel shall monitor efforts of the Rebate Service Provider and assure payment of required rebate amounts, if any, no later than 60 days after each 5-year anniversary of the issue date of the Bonds, and no later than 60 days after the last Bond of each issue is redeemed; and

d.) during the construction period of each capital project financed in whole or in part by Bonds, the Responsible Officer and other appropriate City personnel shall monitor the investment and expenditure of Bond proceeds and shall consult with the Rebate Service Provider to determine compliance with any applicable exceptions from the arbitrage rebate requirements during each 6-month spending period up to 6 months, 18 months or 24 months, as applicable, following the issue date of the Bonds.

e.) The City shall retain copies of all arbitrage reports and trustee statements as described below under "Record Keeping Requirements".

d. Use of Bond Proceeds

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i. The Responsible Officer and other appropriate City personnel shall:

a.) monitor the use of Bond proceeds and the use of Bond-financed assets (e.g., facilities, furnishings or equipment) throughout the term of the Bonds (and in some cases beyond the term of the Bonds) to ensure compliance with covenants and restrictions set forth in applicable City resolutions and Tax Certificates;

b.) maintain records identifying the assets or portion of assets that are financed or refinanced with proceeds of each issue of Bonds;

c.) consult with Bond Counsel and other professional expert advisers in the review of any contracts or arrangements involving use of Bond-financed facilities to ensure compliance with all covenants and restrictions set forth in applicable City resolutions and Tax Certificates;

d.) maintain records for any contracts or arrangements involving the use of Bond-financed facilities as might be necessary or appropriate to document compliance with all covenants and restrictions set forth in applicable City resolutions and Tax Certificates; and

e.) meet at least annually with personnel responsible for Bond-financed assets to identify and discuss any existing or planned use of Bond-financed assets and to ensure that those uses are consistent with all covenants and restrictions set forth in applicable City resolutions and Tax Certificates.

f.) All relevant records and contracts shall be maintained as described below.

1. Record Keeping Requirements

a. Unless otherwise specified in applicable City resolutions or Tax Certificates, the City shall maintain the following documents for the term of each issue of Bonds (including refunding Bonds, if any) plus at least three years:

b. a copy of the Bond closing transcript(s) and other relevant documentation delivered to the City at or in connection with closing of the issue of Bonds;

c. a copy of all material documents relating to capital expenditures financed or

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refinanced by Bond proceeds, including (without limitation) construction contracts, purchase orders, invoices, trustee requisitions and payment records, as well as documents relating to costs reimbursed with Bond proceeds and records identifying the assets or portion of assets that are financed or refinanced with Bond proceeds;

d. a copy of all contracts and arrangements involving private business use of Bond-financed assets; and
e. copies of all records of investments, investment agreements, arbitrage reports and underlying documents, including trustee statements.

e. Identification and Correction of Violations: In the event that the use of bond proceeds or bond-financed assets, or the payments derived from such assets, are different than those expected at the time bonds are issued, the City should contact Bond Counsel in a timely manner to ensure that there is no adverse effect on the tax status of the bonds. Under existing Treasury Regulations, various "self-help" remedies are available to the City in the event of certain violations of the limits of use of bond proceeds, the investment of bond proceeds, and the use of the bond-financed assets. For example, a change in the use of the bond-financed assets after the issuance of the bonds that results in excessive private business use may be corrected through a 'remedial action' that is described in the Treasury Regulation Section 1.141-12. Such remedial actions include a defeasance of the portion of the bonds affected by the excessive private business use or using the disposition proceeds from the sale of the bond-financed assets for another qualified purpose. In the event that the self-help remedial actions in Treasury Regulation Section 1.141-12 are not available to the City, violations occurring through City action (or inaction) that potentially adversely affect the status of the bonds may be corrected through the Voluntary Closing Agreement Program as further described in IRS Notice 2008-31 and in Sections 7.2.3 of the Internal Revenue Manual.

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APPENDIX A: GLOSSARY

AD VALOREM TAX
A tax calculated "according to the value" of property. Such a tax is based on the assessed valuation of real property and, in certain cases, on a valuation of tangible personal property. In most jurisdictions, the tax is a lien on the property enforceable by seizure and sale of the property. General restrictions, such as overall restrictions on rates, or the percent of charge allowed, sometimes apply. As a result, *ad valorem* taxes often function as the balancing element in local budgets.

ADVANCE REFUNDING
A procedure whereby outstanding bonds are refinanced by the proceeds of a new bond issue more than 90 days prior to the date on which outstanding bonds become due or are callable. Generally, either the entire outstanding issue is refunded (full refunding) or only the callable bonds are refunded (partial refunding). Typically an advance refunding is performed to take advantage of interest rates that are significantly lower than those associated with the original bond issue. At time, however, an advance refunding is performed to remove restrictive language or debt service reserve requirements required by the original issue. (See also "CURRENT REFUNDING")

AMORTIZATION
The planned reduction of a debt obligation according to a stated maturity or redemption schedule.

ARBITRAGE
The gain that may be obtained by borrowing funds at a lower (often tax- exempt) rate and investing the proceeds at higher (often taxable) rates. The ability to earn arbitrage by issuing tax-exempt securities has been severely curtailed by the Tax Reform Act of 1986, as amended.

ASSESSED VALUATION
The appraised worth of property as set by a taxing authority through assessments for purposes of *ad valorem* taxation. The method of establishing assessed valuation varies from state to state, with the method generally specified by state law. For example, in certain jurisdictions the assessed evaluation is equal to the full or market value of the property; in other jurisdictions the assessed valuation is equal to a percentage of the full market value.

ASSESSMENT BONDS
Bonds issued to develop facilities and basic infrastructure for the benefit of specific properties within the assessment district which directly benefit from the facilities. The key consideration here is the "direct and special benefit" to be received by the property subject to the assessment. Voter approval is not required. Instead, a majority vote of the property owners with a majority of assessments is needed to authorize the issue. The issuer's recourse for nonpayment is foreclosure. This type of bond is normally not rated. The bonds may be issued under the provisions of the various assessment bond acts of the State, whichever is most appropriate. (See also "Special Tax Bond" for a description of bonds issued pursuant to the Mello-Roos Act.)

BALLOON MATURITY
A maturity within a serial issue of securities which contains a disproportionately large percentage of the principal amount of the original issue. A balloon maturity is generally distinguished from a term bond by the fact that a term bond generally has the benefit of a sinking fund to smooth out the amount of principal paid

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from any single year's operations. A balloon maturity increases the likelihood that the jurisdiction will need to refinance the securities for an extended period of time upon their initial maturity.

BASIS POINT
One one-hundredth of one percent (0.0001).

BEARER BOND
A security that does not identify its owner on its face or by registration. The security is presumed to be owned by the person possessing it. The Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) curtailed the issuance of tax-exempt bearer bonds.

BOND
A security that represents an obligation to pay a specified amount of money on a specific date in the future, typically with periodic interest payments.

BOND ANTICIPATION NOTES
Notes issued to provide temporary financing, to be repaid from the proceeds of a subsequent long-term financing.

BOND COUNSEL
An attorney (or firm of attorneys) retained by the issuer to give a legal opinion concerning the validity of the securities. The bond counsel's opinion usually addresses the subject of tax exemption. Bond counsel may prepare, or review and advise the issuer regarding authorizing resolutions or ordinances, trust indentures, official statements, validation proceedings and litigation.

BOND INSURANCE
Bond insurance is a type of credit enhancement whereby a monoline insurance company indemnifies an investor against default by the issuer. In the event of a failure by the issuer to pay principal and interest in full and on time, investors may call upon the insurance company to do so. Once assigned, the municipal bond insurance policy generally is irrevocable. The insurance company receives an up-front fee, or premium, when the policy is issued.

BOOK-ENTRY-ONLY
Bonds that are issued in fully registered form but without certificates of ownership. The ownership interest of each actual purchaser is recorded on computer.

CALL OPTION
The right to redeem a bond prior to its stated maturity, either on a given date or continuously. The call option is also referred to as the optional redemption provision. Often a "call premium" is added to the call option as compensation to the holders of the earliest bonds called. Generally, the earliest callable bonds called carry a 102% premium, the next earliest, a 101 % premium, and the balance of the bonds are called at par value.

CAPITAL APPRECIATION BOND
A bond without current interest coupons that is sold at a substantial discount from par. Investors are provided with a return based upon the accretion of value in the bond through maturity. (see zero coupon bond)

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CAPITAL LEASE

The acquisition of a capital asset over time rather than merely paying a rental fee for temporary use. A lease-purchase agreement, in which provision is made for transfer of ownership of the property for a nominal price at the scheduled termination of the lease, is referred to as a capital lease.

CERTIFICATES OF PARTICIPATION

A lease agreement with another party (a lessor, such as a joint powers authority) to lease an asset over a defined period of time at a prearranged annual payment. Voter approval is generally not required. Lease payments are made primarily from general fund revenues. Current law requires the lessee to make lease payments only if the City has beneficial use of the facility to be leased. The legislative body has to appropriate annual debt service payments. For the security of the bondholders, a reserve fund is normally established and held by a trustee until all bonds are paid. Interest during project construction must be capitalized. An "asset transfer" structure, whereby an existing facility is used as security to finance construction or acquisition of another project, may be used for flexibility. Sometimes this structure is styled as a "lease revenue bond," which is functionally the same as Certificates of Participation.

COMMERCIAL PAPER (TAX-EXEMPT)

By convention, short-term, unsecured promissory notes issued in either registered or bearer form with a stated maturity of 270 days or less.

COMPETITIVE SALE

Sales of securities in which the securities are awarded to the bidder who offers to purchase the issue at the best price or lowest cost.

CONDUIT FINANCING

The issuance of securities by a governmental entity to finance a project that will primarily benefit a third party, typically a private corporation. The security for this type of financing is usually the credit of the private entity, rather than the governmental unit. Usually such securities do not constitute general obligations of the issuer since the private entity is liable for generating the pledged revenues for repayment. Industrial development bonds are a common type of conduit financing.

CONTINUING DISCLOSURE

The requirement by the Securities and Exchange Commission for most issuers of municipal debt to provide current financial information to the informational repositories for access by the general marketplace. Generally, SEC Rule 15c2-12 requires issuers of municipal securities and certain other "obligated persons" to make contractual promises to provide continuing information to the marketplace during the life of securities issues. Under the rule, an underwriter is not permitted to purchase or sell municipal securities in connection with a primary offering of $1.0 million or more unless it has entered into such a contractual arrangement with the issuer of the securities for the benefit of the holders of the securities.

In conduit issues, the obligation to maintain continuing disclosure efforts should be imposed on the project sponsors.

COUPON RATE

The interest rate on specific maturities of a bond issue. While the term "coupon' derives from the days when virtually all municipal bonds were in bearer form with coupons attached, the term is still frequently used to refer to the interest rate on different maturities of bonds in registered form.

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CURRENT REFUNDING
A procedure whereby outstanding bonds are refinanced by the proceeds of a new bond issue within 90 days of the date on which outstanding bonds become due or are callable. Generally, either the entire outstanding issue is refunded (full refunding) or only the callable bonds are refunded (partial refunding). Typically a current refunding is performed to take advantage of interest rates that are significantly lower than those associated with the original bond issue. At times, however, a current refunding is performed to remove restrictive language or debt service reserve requirements required by the original issue. (See also "ADVANCE REFUNDING")

CUSIP NUMBER
The term CUSIP is an acronym for the Committee on Uniform Securities Identification Procedures. An identification number is assigned to each maturity of an issue, and is usually printed on the face of each individual certificate of the issue. The CUSIP numbers are intended to help facilitate the identification and clearance of municipal securities. As the municipal market has evolved, and new derivative products are devised, the importance of the CUSIP system for identification purposes has increased.

DEBT BURDEN
The ratio of outstanding tax-supported debt to the market value of property within a jurisdiction. The overall debt burden includes a jurisdiction's proportionate share of overlapping debt as well as the municipality's direct net debt.

DEBT LIMITATION
The maximum amount of debt that is legally permitted by a jurisdiction's charter, constitution, or statutory requirements.

DEBT SERVICE
The amount necessary to pay principal and interest requirements on outstanding bonds for a given year or series of years.

DEBT SERVICE RESERVE FUND
The fund into which moneys are placed which may be used to pay debt service if pledged revenues are insufficient to satisfy the debt service requirements. The debt service reserve fund may be entirely funded with bond proceeds, or it may only be partly funded at the time of the issuance and allowed to reach its full funding requirement over time, due to the accumulation of pledged revenues. If the debt service reserve fund is used in whole or part to pay debt service, the issuer usually is required to replenish the funds from the first available funds or revenues. A typical reserve requirement might be the maximum aggregate annual debt service for any year remaining until the bonds reach maturity. The size of the reserve fund, and the manner in which it is invested, may be subject to arbitrage regulations.

DEFAULT
The failure to pay principal or interest in full or on time. An actual default should be distinguished from technical default. The latter refers to a failure by an issuer to abide by certain covenants but does not necessarily result in a failure to pay principal or interest when due.

DEFEASANCE
Providing for payment of principal of premium, if any, and interest on debt through the first call date or scheduled principal maturity in accordance with the terms and requirements of the instrument pursuant to which the debt was issued. A legal defeasance usually involves establishing an irrevocable escrow funded with only cash and US. government obligations.

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DEPOSITORY TRUST COMPANY (DTC)
A limited purpose trust company organized under the New York Banking Law. DTC facilitates the settlement of transactions in municipal securities.

DERIVATIVES
Financial products whose value is derived from the value of an underlying asset, reference rate, or index. Typically these agreements are contracts between a lender/investor and a borrower and include interest rate swaps, caps, floors, collars, and forward purchase agreements.

DISCOUNT
The difference between a bond's par value and the price for which it is sold when the latter is less than par.

DOUBLE-BARRELED BOND
A bond secured by a defined source of revenue (other than general property taxes) and the full faith and credit of an issuer.

ENTERPRISE ACTIVITY
A revenue-generating project or business. The project often provides funds necessary to pay debt service on securities issued to finance the facility. The debts of such projects are self-liquidating when the projects earn sufficient monies to cover all debt service and other requirements imposed under the bond contract. Common examples include water and sewer treatment facilities and utility facilities.

FINANCIAL ADVISOR
A consultant who advises an issuer on matters pertinent to a debt issue, such as structure, sizing, timing, marketing, pricing, terms, and bond ratings.

FITCH INVESTORS SERVICE
A financial services company, founded in 1913, which provides investors with an independent assessment of the credit worthiness of debt obligations.

FINAL OFFICIAL STATEMENT (FOS)
A document published by the issuer that generally discloses material information on a new issue of municipal securities including the purposes of the issue, how the securities will be repaid, and the financial, economic and social characteristics of the issuing government. Investors may use this information to evaluate the credit quality of the securities. (See also Official Statement)

FLOW OF FUNDS
The order in which pledged revenues must be disbursed, as set forth in the trust indenture or bond resolution. In most instances, the pledged revenues are deposited into a general collection account or revenue fund as they are received and subsequently transferred into the other accounts established by the bond resolution or trust indenture. The other accounts provide for payment of the costs of debt service, debt service reserve deposits, operation and maintenance costs, renewal and replacement, and other requirements.

GENERAL OBLIGATION BONDS
Bonds backed by the full faith and credit of the City. The taxing power is an unlimited *ad valorem* tax, usually on real estate and personal property. A special rate is incorporated in the property tax bill annually to pay for debt service. A two-thirds voter approval is required for authorization. Because it is secured by an unlimited tax levy, this structure has strong marketability and lower interest costs.

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GENERAL OBLIGATION DEBT
Debt that is secured by a pledge of the *ad valorem* taxing power of the issuer. Also known as a full faith and credit obligation.

INDENTURE
A contract between the issuer and a trustee stipulating the characteristics of the financial instrument, the issuer's obligation to pay debt service, and the remedies available to the trustee in the event of a default.

INVESTMENT GRADE
The broad designation given bonds which have a high probability of being paid, and minor, if any, speculative features. Bonds rated "BBB" or higher by Standard & Poor's Corporation, "Baa" or higher by Moody's Investor's Service, and "BBB" or higher by Fitch IBCA Rating Service are deemed by those agencies to be "investment grade."

ISSUANCE COSTS
The costs incurred by the bond issuer during the planning and sale of securities. These costs include but are not limited to financial advisory and bond counsel fees, printing and advertising costs, rating agency fees, and other expenses incurred in the marketing of an issue.

ISSUER COUNSEL
An attorney engaged by the issuer to represent its best interest in a debt transaction. Often this role is performed by bond counsel, however, at times separate counsel is engaged that does not have responsibility to issue the bond opinion as well as represent the issuer's best interests.

JUNIOR LIEN BONDS
Bonds that have a subordinate claim against pledged revenues.

LEASE
An obligation wherein a lessee agrees to make payments to a lessor in exchange for the use of certain property. The term may refer to a capital lease or to an operating lease.

LEASE REVENUE BONDS
Bonds that are secured by an obligation of one party to make annual lease payments to another.

LESSEE
The party to a lease agreement that obtains use of a facility or piece of equipment on exchange for rental payments.

LESSOR
The owner of the property being leased.

LETTER OF CREDIT
Bank credit facility whereby a bank will honor the payment of an issuer's debt, in the event that an issuer is unable to do so, thereby providing an additional source of security for bondholders for a predetermined period of time. A letter of credit often is referred to as an L/C or an LOC. Letter of Credit can be issued on a "stand-by" or "direct pay" basis.

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LINE OF CREDIT
Bank credit facility wherein the bank agrees to lend up to a maximum amount of funds at some date in the future in return for a commitment fee.

MANAGER
The member (or members) of an underwriting syndicate -charged with the primary responsibility for conducting the affairs of the syndicate. The managers take the largest underwriting commitment.

UNDERWRITER
The underwriter serving as head of the syndicate. The lead Manager generally handles negotiations in a negotiated underwriting of a new issue of municipal securities or directs the process by which a bid is determined for a competitive underwriting. The lead Manager also is charged with allocating securities among the members of the syndicate in accordance with the terms of the syndicate agreement or agreement among underwriters.

UNDERWRITING GROUP
Any member of the management group.

MASTER LEASE AGREEMENTS
A lease agreement with a provider to lease equipment or facilities whose useful life is too short, or whose cost is too small to finance with conventional long-term debt. Various pieces and types of real and personal property from different vendors over a period of time can be acquired under one master lease agreement. Interest can be fixed or tied to an index. Financing costs are normally minimal, but the interest cost may be higher than with other instruments.

MARKS-ROOS BONDS
Bonds issued by a joint powers authority to buy other bond issues. By pooling bond issues, marketability can be improved and administration costs are reduced. Often used in the case of a negotiated sale of successor agency debt in order to avoid the competitive sale requirements for such debt.

MOODY'S INVESTORS SERVICE, INC.
A financial service company, a subsidiary of Dun & Bradstreet Corp. has provided ratings for municipal securities and other financial information to investors since 1918.

MUNICIPAL SECURITIES RULEMAKING BOARD (MSRB)
A self-regulating organization established on September 5, 1975 upon the appointment of a 15-member Board by the Securities and Exchange Agreement. The MSRB, comprised of representatives from investment banking firms, dealer bank representatives, and public representatives, is entrusted with the responsibility of writing rules of conduct for the municipal securities market. New board members are selected by the MSRB pursuant to the method set forth in Board rules.

NEGOTIATED SALE
A sale of securities in which the terms of sale are determined through negotiation between the issuer and the purchaser, typically an underwriter, without competitive bidding

NET INTEREST COST (NIC)
The average interest cost of a bond issue calculated on the basis of simple interest. This calculation involves a fraction in which the numerator is the gross amount of interest to be paid over the bonds' life (adjusted for the amount of discount or premium granted at the time of sale), and the denominator is the average life of the bond issue multiplied by the issue's par value.

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NOTE
A written promise to pay a certain amount of money on a specific date, with interest. By convention, the maturity of a note is one year or less, making it short-term debt. However, financial instruments with a longer stated maturity sometimes are called Notes. For example, a bond anticipation note can have maturities of two years or longer.

OFFICIAL STATEMENT (OS)
A document published by the issuer that generally discloses material information on a new issue of municipal securities including the purposes of the issue, how the securities will be repaid, and the financial, economic and social characteristics of the issuing government. Investors may use this information to evaluate the credit quality of the securities. (See also Final Official Statement)

OPERATING LEASE
A lease that enables the lessee to acquire the use of an asset only, not its ownership as in a capital lease. The lease term typically runs for only a portion of the asset's useful life.

ORIGINAL ISSUE DISCOUNT BONDS
Bonds which are sold at a substantial discount from their par value at the time of the original sale.

OVERLAPPING DEBT
The legal jurisdictions of local governments often overlap one another. In some cases, one unit of government is located entirely within the boundaries of another. Overlapping debt represents the proportionate share of debt that must be borne by one unit of government because another government with overlapping or underlying taxing authority issued its own bonds.

PAR VALUE
The face value or principal amount of a security.

PAYING AGENT
An agent of the issuer with responsibility for timely payment of principal and interest to bond holders.

PRELIMINARY OFFICIAL STATEMENT (POS)
The POS is a preliminary version of the official statement that is used by an issuer or underwriters to describe the proposed issue of municipal securities prior to the determination of the interest rate(s) and offering price(s). The preliminary official statement, also called a "red herring," often is examined upon by potential purchasers prior to making an investment decision.

PREMIUM
The excess of the price at which a bond is sold over its face value.

PRESENT VALUE
The value of a future amount or stream of revenues or expenditures in current dollars.

PRIVATE ACTIVITY BONDS
A bond where the use of bond proceeds is used for private purposes. If deemed a private activity bond, the interest is not tax exempt unless the use of the proceeds meets certain requirements of the Internal Revenue Code.

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PUT OPTION
The right to demand repayment of principal prior to a bond's maturity. In the case of short-term variable rate debt, this right often is referred to as a variable-rate demand option.

REFUNDING
A procedure whereby an issuer refinances an outstanding bond issue by issuing new bonds.

REGISTERED BOND
A security on which the ownership is recorded by the issuer or its agent.

RESERVE FUND
A fund established by the indenture of a bond issue into which money is deposited for payment of debt service in case of a shortfall in current revenues.

REVENUE BONDS
Bonds secured by revenues generated by the facility that is financed or by dedicated user fees. Voter approval may or may not be required. Planning is more complex because costs and revenues affect each other. Credit enhancement (e.g., insurance, or letter of credit) may be needed because of the limited source of debt service payment.

SECONDARY MARKET
The market in which bonds are sold after their initial sale in the new issue market.

SENIOR LIEN BONDS
Bonds having a prior, or first claim on pledged revenues.

SERIAL BONDS
A bond issue in which the principal is repaid in periodic installments over the issue's life.

SOPHISTICATED INVESTOR
A purchaser of bonds, who is considered knowledgeable about the pricing and risk factors associated with the repayment of bonds. This type of investor usually purchases bonds in large dollar amounts, typically $100,000 or more.

SPECIAL ASSESSMENTS
A charge imposed against property or parcel of land that receives a special benefit by virtue of some public improvement that is not, or cannot be enjoyed by the public at large. Special assessment debt issues are those that finance such improvements and are repaid by the assessments charged to the benefiting property owners.

STANDARD & POOR'S CORPORATION (S&P)
A financial service company, a subsidiary of McGraw-Hill -Company. S&P provides ratings for municipal securities and other financial information to investors.

TAX ALLOCATION BONDS
Bonds secured by property tax increment (property taxes generated on assessed value in excess of the frozen property tax base) in a redevelopment project area. These bonds are issued to promote economic development. Voter approval is not required.

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TAX INCREMENT
Property tax revenues derived from the incremental assessed value increases from the redevelopment project area's frozen tax base.

TERM BONDS
A bond issue in which the entire principal matures on one date. Term bonds also refer to a particularly large maturity of a bond issue that is created by aggregating a series of maturities. In the latter instance, provision is made for mandatory structuring fund installments in advance of the term bond's maturity to reduce the burden of a particular large debt service payment in any one fiscal year.

TRUE INTEREST COST (TIC)
An expression of the average interest cost in present value terms. The true interest cost is a more accurate measurement of the bond issue's effective interest cost and should be used to ascertain the best bid in a competitive sale.

UNDERWRITER'S COUNSEL
An attorney engaged by the underwriter(s) to represent its interests in a debt transaction. Generally underwriter's counsel prepares the bond purchase agreement between the issuer and the underwriter and, when more than one underwriter is involved, the agreement among underwriters.

VARIABLE RATE BOND
A bond on which the interest rate is reset periodically, usually no less often than semi-annually. The interest rate is reset either by means of an auction or through an index.

VENDOR LEASES
A vendor of equipment acts as the lessor and investor, and holds the lease for its full term or may assign the lease. The motivating factor to the vendor is usually to encourage future sales of its product.

YIELD CURVE
A graph that plots the market yields on securities with different maturities, at a given point in time. The vertical axis represents the yields, while the horizontal axis depicts the time to maturity. The term structure of interest rates, as reflected by the yield curve, will vary according to market conditions, resulting in a wide variety of yield curve configurations.

YIELD-TO-MATURITY
The rate of return that an investor will receive if the bond remains outstanding and the investor holds the bond to maturity. The investor must take into account the price paid for the bonds, the dates of purchase and maturity, and the coupon rate on the bonds. The "yield to maturity" assumes that interest payments will be re-invested at the same coupon rate borne by the bond.

ZERO COUPON
A bond which does not pay interest periodically. Investors receive interest on the scheduled principal maturity date of the obligation.

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APPENDIX B: FORM OF FINANCING ASSISTANCE APPLICATION FOR CONDUIT DEBT

I. PROPOSED OWNER OF THE PROJECT

A. Official Company Name:_____

DBAs (if applicable): _____

Official Mailing Address:_____

_____

Telephone:_____ Fax:_____

Company Headquarters and address of primary operating location in

California:_____

B. Form of Ownership: Corporation _____

Partnership:_____ Sole Proprietorship_____

Other (describe)_____

Is the proposed owner a subsidiary or affiliated directly or indirectly with any other organization? ___
If so, indicate relationship and name of related organization:
_____

If corporation, indicate state of incorporation:_____ and date qualified to do business in California (if incorporated elsewhere):_____

C.

Officers	Names & Home Address	Other Business Affiliations
President	_____	_____
	_____	_____
Vice President (Finance)	_____	_____
	_____	_____

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Secretary _____ _____

Directors _____ _____

_____ _____

_____ _____

_____ _____

D. List name and home address of equity owners of 10% or more. If publicly held, indicate stock exchange traded on. If partnership, list General and Limited Partners and interest owned by each. If trust, list beneficiaries.

Name	Home Address	% of Equity Interest Owned
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

E. Name, business address, and phone number of officer to whom all notices and communications concerning the project should be sent:

_____

_____

F. Principal Bank(s) of Account with name and phone number of contact person:

Name:_____ Contact:_____

Address:_____

_____

Telephone:_____

Name:_____ Contact:_____

Address:_____

_____

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Telephone:_____

G. Counsel to Applicant:

Name:_____

Address:_____

Telephone:_____ Fax:_____

H. Bond Counsel on proposed project:

Name:_____

Address:_____

Telephone:_____ Fax:_____

I. Investment Banker for proposed project:

Name:_____

Address:_____

Telephone:_____ Fax:_____

J. Company History

List past tax-exempt financing transactions:

_____

_____

_____

Have any of these projects ever been in default? _____Yes _____No

If yes, please provide particulars:

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_____

_____

_____

K. Is the firm or any of its principals currently or in the past 10 years been engaged in any litigation involving financing of the type and nature of that being proposed to the City. _____Yes _____No.

If yes, please provide the names of the principals and details of the litigation. Use additional pages if necessary.

_____

_____

_____

_____

_____

II. PROPOSED PROJECT

A. Give brief narrative explanation why project is being undertaken.

B. Narrative Description, including renderings if available of proposed project.

C. Proposed facilities to be constructed with bond proceeds (describe).

D. Does applicant now own the site of the proposed facility?_____ If not, has applicant entered into an option or commitment or other agreement to purchase it?

E. Estimated useful life of buildings, equipment, or off-site improvements.

F. Does the proposed project involve, in whole or in part, any of the following: residential real property; sports facilities;; commercial property; health care facilities; manufacturing facilities; entertainment facilities; or industrial land development activities? Yes_____ No_____ If yes, please explain.

_____

_____

_____

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G. Estimated date on which facilities will:

Start construction:_____ Complete construction:_____

III. COST OF THE PROJECT

State the costs reasonably necessary to the acquisition or construction of the proposed project together with any machinery and equipment necessary or convenient in connection therewith, and including any utilities, access roads or apportionment facilities;

A.	Land and Facilities	$_____
B.	Architectural and Engineering	$_____
C.	Construction Costs:	$_____
D.	Interest during construction:	$_____
E.	Financing, legal, miscellaneous (from _____ to _____) (please specify)	$_____
F.	Contingency (if appropriate)	$_____
	TOTAL	$_____

IV. SIGNIFICANT PUBLIC BENEFITS

Please furnish a description of the significant public benefits that will arise from the issuance of bonds in the maximum amount proposed in the application.

A. Employment creation/displacement – will the completion of the project contribute to job creation? Explain.

B. Energy, mineral or natural or cultivated resource conservation – will the completion of the project lead to increased utilization of resources:

1. Estimate of increased utilization of resources.

2. Estimate of increases in cost to the public due to increased utilization.

C. Does construction of the project, or completion of the project, have any adverse environmental impacts, including additional waste disposal?

1. Estimate of the environmental impacts.

2. Include copies of any required Environmental Impact Reports.

Attachment: Debt Management Policy rev (red letter version) [Revision 1] (2372 : APPROVE AND ADOPT THE REVISED DEBT MANAGEMENT

Report to City Council

TO:	Mayor and City Council
FROM:	Ahmad R. Ansari, P.E., Public Works Director/City Engineer
AGENDA DATE:	February 7, 2017
TITLE:	ACCEPTANCE OF CALIFORNIA DEPARTMENT OF RESOURCES, RECOVERY AND RECYCLING USED OIL PAYMENT PROGRAM AWARD

RECOMMENDED ACTION

Recommendation:

1. Staff recommends the City Council approve the acceptance of the Used Oil Payment Program grant funds awarded by the California Department of Resources, Recovery and Recycling (CalRecycle), in the amount of $55,462.00.

SUMMARY

Public Resources Code 48600 et seq. describes the California Oil Recycling Enhancement Act (act) which provides for, among other things, funding to assist local governments in developing and maintaining an on-going used oil and used oil filter collection/recycling program for their communities. It also authorizes CalRecycle to make payments to local jurisdictions for the implementation of local used oil collection programs. For Fiscal Year (FY) 2016/17, a total of $11 million is available for payments to qualifying applicants. On October 18, 2016, the City was notified by CalRecycle of the approval of the award and distribution of payment for FY 2016/17 Used Oil Payment Program grant funds (OPP7) in the amount of $55,462.00. The City is scheduled to receive payment in April 2017.

DISCUSSION

The City of Moreno Valley's Recycling Program will utilize the grant payment to fund a variety of events and programs such as:

- Two (2) Used Oil Filter Exchange and Recycling Events

- Household Hazardous Waste Events

- Print and media advertising for all events and to highlight the used oil recycling locations within the City

ALTERNATIVES

1. Approve the acceptance of the Used Oil Payment Program grant funds awarded to the City in the amount of $55,462.00. ***Staff recommends this alternative.***

2. Elect not to approve the acceptance of the $55,462.00 Used Oil Payment Program grant funds awarded to the City and provide further direction to staff.

FISCAL IMPACT

The Grant will provide $55,462.00 to fund the City's Used Oil Payment Program. The Grant funds will be deposited into Account 2207-70-78-77415 (OPP Used Oil Grant). Revenues and expenditures were approved in the FY 15/16 & 16/17 Two-Year Budget.

*Adjustment from FY 2015/16

Description	Fund	GL Account No.	Type (Rev/Exp)	FY16/17 Budget	Proposed Adjustments	FY16/17 Amended Budget
*Cycle 6 Adjustment	OPP	2207-70-78-77415 Project GL OPP 6	Rev	$52,544	$2,314	$54,858
*Cycle 6 Adjustment	OPP	2207-70-78-77415 Project GL OPP 6	Exp	$52,544	$2,314	$54,858

Description	Fund	GL Account No.	Type (Rev/Exp)	FY16/17 Budget	Proposed Adjustments	FY16/17 Amended Budget
Receipt of Grant	OPP	2207-70-78-77415-XXXXXX Project GL OPP 7	Rev	$54,858	$55,462	$110,320
Receipt of Grant	OPP	2207-70-78-77415-XXXXXX Project GL OPP 7	Exp	$54,858	$55,462	$110,320

NOTIFICATION

Listed on the City Council Agenda

PREPARATION OF STAFF REPORT

Prepared By:
Patricia Brock
Management Assistant

Department Head Approval:
Ahmad R. Ansari, P.E.
Public Works Director/City Engineer

Concurred By:
Robert R. Lemon
Maintenance & Operations Division Manager

CITY COUNCIL GOALS

Revenue Diversification and Preservation. Develop a variety of City revenue sources and policies to create a stable revenue base and fiscal policies to support essential City services, regardless of economic climate.

Positive Environment. Create a positive environment for the development of Moreno Valley's future.

Community Image, Neighborhood Pride and Cleanliness. Promote a sense of community pride and foster an excellent image about our City by developing and executing programs which will result in quality development, enhanced neighborhood preservation efforts, including home rehabilitation and neighborhood restoration.

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

Objective 5.5: Promote a healthy community and lifestyle.

ATTACHMENTS

1. Resolution No. 2012-93

APPROVALS

Budget Officer Approval	✓ Approved	1/24/17 1:49 PM
City Attorney Approval	✓ Approved	1/25/17 9:32 AM
City Manager Approval	✓ Approved	1/26/17 9:56 AM

RESOLUTION NO. 2012-93

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA APPROVING SUBMITTAL OF APPLICATION(S) FOR ALL CALRECYCLE GRANTS FOR WHICH THE CITY OF MORENO VALLEY IS ELIGIBLE

WHEREAS, Public Resources Code sections 40000 et seq. authorize the Department of Resources Recycling and Recovery (CalRecycle), to administer various Grant Programs (grants) in furtherance of the State of California's (State) efforts to reduce, recycle and reuse solid waste generated in the State thereby preserving landfill capacity and protecting public health and safety and the environment; and

WHEREAS, in furtherance of this authority CalRecycle is required to establish procedures governing the application, awarding, and management of the grants; and

WHEREAS, CalRecycle grant application procedures require, among other things, an Applicant's governing body to declare by Resolution certain authorizations related to the administration of CalRecycle grants.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Moreno Valley, California, authorizes the submittal of application(s) to CalRecycle for all grants for which the City of Moreno Valley is eligible; and

BE IT FURTHER RESOLVED that the City Manager, and/or the Public Works Director/City Engineer, are hereby authorized and empowered to execute in the name of the City of Moreno Valley all grant documents, including but not limited to, applications, agreements, amendments and requests for payment, necessary to secure grant funds and implement the approved grant project; and

BE IT FURTHER RESOLVED that these authorizations are effective five (5) years from the date of adoption of this Resolution.

Attachment: Resolution No. 2012-93 (2353 : ACCEPTANCE OF CALIFORNIA DEPARTMENT OF RESOURCES, RECOVERY AND RECYCLING

APPROVED AND ADOPTED this 27th day of November, 2012.

Mayor of the City of Moreno Valley

ATTEST:

City Clerk

APPROVED AS TO FORM:

City Attorney

Attachment: Resolution No. 2012-93 (2353 : ACCEPTANCE OF CALIFORNIA DEPARTMENT OF RESOURCES, RECOVERY AND RECYCLING

RESOLUTION JURAT

STATE OF CALIFORNIA)

COUNTY OF RIVERSIDE) ss.

CITY OF MORENO VALLEY)

I, Jane Halstead, City Clerk of the City of Moreno Valley, California, do hereby certify that Resolution No. 2012-93 was duly and regularly adopted by the City Council of the City of Moreno Valley at a regular meeting thereof held on the 27th day of November, 2012 by the following vote:

AYES: Council Members Co, Hastings, Molina, Mayor Pro Tem Batey and Mayor Stewart

NOES: None

ABSENT: None

ABSTAIN: None

(Council Members, Mayor Pro Tem and Mayor)

CITY CLERK

(SEAL)

Attachment: Resolution No. 2012-93 (2353 : ACCEPTANCE OF CALIFORNIA DEPARTMENT OF RESOURCES, RECOVERY AND RECYCLING

Report to City Council

TO:	Mayor and City Council
FROM:	Martin Koczanowicz, City Attorney Terrie Stevens, Administrative Services Director
AGENDA DATE:	February 7, 2017
TITLE:	APPROVAL OF EMPLOYMENT AGREEMENT WITH PATRICIA JACQUEZ-NAREZ TO SERVE AS THE NEW CITY CLERK

RECOMMENDED ACTION

Recommendation:

1. It recommended that Council approve the Employment Agreement with Patricia Jacquez-Nares to serve as the new City Clerk and authorize the Mayor to execute it on behalf of the City.

SUMMARY

This report recommends approval of an Employment Agreement with the new City Clerk selected by the City Council following the recruitment process.

DISCUSSION

A few months ago City Council retained an outside recruiting firm to assist in filling the permanent City Clerk position. After an extensive recruitment process City Council selected Patricia Jacquez-Nares as the successful candidate for the position.

Attached to the staff report is the draft Employment Agreement with Ms. Jacquez-Nares for Council's consideration. Copy executed by Ms. Jacquez-Nares will be provided prior to the February 7th meeting.

ALTERNATIVES

1. Approve the Employment Agreement with Ms. Jacquez-Nares and authorize the Mayor to execute it on behalf of the City. *Staff recommends this alternative as the*

negotiated terms of the Employment Agreement were authorized by the Council.

2. Fail to approve the Employment Agreement as presented. *Staff does not recommend this alternative for the same reason as stated above.*

FISCAL IMPACT

The proposed compensation package is within the range designated for the City Clerk position and has been budgeted for in FY17.

NOTIFICATION

Agenda was posted in accordance with the Brown Act.

PREPARATION OF STAFF REPORT

Prepared By:
Martin D. Koczanowicz
City Attorney

Concurred:
Terrie Stevens
Administrative Services Director

.

CITY COUNCIL GOALS

None

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

ATTACHMENTS

1. Employment Agreement - Jacquez-Nares City Clerk

APPROVALS

Budget Officer Approval	✓ Approved	2/02/17 9:28 AM
City Attorney Approval	✓ Approved	2/01/17 4:14 PM

City Manager Approval ✓ Approved 2/02/17 9:31 AM

EMPLOYMENT AGREEMENT

This Employment Agreement (hereafter referred to herein as "Agreement") is made and entered into this ___ day of February, 2017, by and between the City of Moreno Valley, California (hereafter referred to herein as "CITY"), a California municipal corporation and general law city, and Patricia Jacquez-Nares (hereafter referred to herein as "EMPLOYEE"), an individual, on the following terms and conditions:

RECITALS

A. CITY, by and through the City Council, desires to employ the services of Employee as the City Clerk of CITY; and

B. EMPLOYEE desires to accept employment as City Clerk in consideration of and subject to the terms and conditions set forth in this Agreement.

OPERATIVE PROVISIONS

In consideration of the promises and covenants contained herein, the parties agree as follows:

1. Position and Duties.

1.1 Position. EMPLOYEE accepts employment with CITY as its City Clerk and shall perform all functions, duties and services as set forth in this Agreement. EMPLOYEE shall provide services at the direction and under the supervision of the City Council of CITY.

1.2 Duties. The duties of EMPLOYEE shall be as determined by the City Council, generally in conformance with the job description attached hereto and incorporated herein as though set forth in full as Attachment A to this Agreement. EMPLOYEE shall devote her best efforts and full-time attention to the performance of these duties.

1.3 Hours of Work. EMPLOYEE shall devote the time necessary to adequately perform her assigned duties. The work schedule shall be the same as the schedule in place for all other Executive Managers of CITY, provided the schedule of such hours provides adequate availability during normal business hours and for the performance of her duties in conducting CITY business. The position of City Clerk shall be deemed an exempt position under applicable wage and hour law. EMPLOYEE hereby acknowledges that she shall not be entitled to any compensation for overtime.

1.4 Professional Activity. The City Council desires EMPLOYEE to be reasonably active in national, statewide, regional and professional organizations that will contribute to her professional development and standing and that will contribute to the advancement of the CITY's interests and standing. Toward that end, EMPLOYEE may, upon advance notice to the City Council, undertake such activities as are directly related to her professional development and that advance the interests and standing of the CITY, provided that such activities do not in any way interfere with or adversely affect her employment as City Clerk or the performance of her duties as provided herein. CITY agrees to reimburse EMPLOYEE'S reasonable and necessary travel, business and subsistence expenses for

Attachment: Employment Agreement - Jacquez-Nares City Clerk [Revision 2] (2472 : APPROVAL OF EMPLOYMENT AGREEMENT WITH

her activities as provided for in the City's Administrative Policies.

1.5 Other Activity. In accordance with Government Code Section 1126, during the period of his/her employment, EMPLOYEE shall not accept, without the express prior written consent of the City Council, any other employment or engage, directly or indirectly, in any other business, commercial, or professional activity (except as permitted under Section 1.4 [Professional Activity], regardless of whether for pecuniary advantage, that is or may be competitive with the CITY, that might cause a conflict-of-interest with the CITY, or that otherwise might interfere with the business or operation of the CITY or the satisfactory performance of EMPLOYEE'S duties.

2. Term.

2.1 Term. The term of this Agreement shall commence on day of February, 2017, upon being executed by EMPLOYEE and approved by the City Council. This Agreement shall remain in effect until such time as this Agreement is terminated pursuant to Section 4, below.

2.2 At-Will Employment. EMPLOYEE acknowledges that she is an at-will employee of CITY who shall serve at the pleasure of the City Council at all times during the period of her service under this Agreement. The terms and provisions of CITY's personnel rules, policies, procedures, ordinances and resolutions applicable to at-will employees shall also apply to EMPLOYEE, and she shall be entitled to all benefits and rights afforded to other Executive Management (as defined in the City's Personnel Rules) of CITY, except to the extent provided by this Agreement, and, in the case of any conflict between this Agreement, and the Personnel Rules, policies, procedures, ordinances and resolution, the terms of this Agreement shall prevail. Notwithstanding the application of the City's Personnel Rules to this Agreement, and without limitation, EMPLOYEE shall have no rights under sections 9, 10, 11 and 12 of the Personnel Rules. Nothing in this Agreement is intended to, or does, confer upon EMPLOYEE any right to any property interest in continued employment, or any due process right to a hearing before or after a decision by the City Council to terminate her employment, except as is expressly provided in Section 4 [Termination] of this Agreement. Nothing contained in this Agreement shall in any way prevent, limit or otherwise interfere with the right of CITY COUNCIL to terminate the services of EMPLOYEE as provided in Section 4 [Termination]. Nothing in this Agreement shall prevent, limit or otherwise interfere with the right of EMPLOYEE to resign at any time from this position with CITY, subject only to the provisions set forth in Section 4 [Termination] of this Agreement. This at-will employment Agreement shall be expressly subject to the rights and obligations of CITY and EMPLOYEE, as set forth in Section 4 [Termination] herein.

3. Compensation.

3.1 Salary. For all services performed by EMPLOYEE as the City Clerk under this Agreement, CITY shall pay EMPLOYEE compensation in accordance with the adopted salary schedule for the position, plus all other compensation benefits afforded by CITY to other full time Executive Management employees. EMPLOYEE shall be entitled to all cost of living and other salary and benefit adjustments implemented by the CITY as applicable to other full time Executive Management employees, to include City's employee furlough program and eligibility for Merit Increases. The starting annual salary shall be $125,000,

Attachment: Employment Agreement - Jacquez-Nares City Clerk [Revision 2] (2472 : APPROVAL OF EMPLOYMENT AGREEMENT WITH

paid bi-weekly according to the payroll schedule in place for CITY employees. All compensation and leave policies applicable to Executive Management employees as contained in CITY'S Personnel Rules and Regulations shall apply.

3.2 Annual Leave. All compensation and leave policies applicable to Executive Management as contained in the City's Personnel Rules and Regulations, Sections 7 and 14, shall apply. EMPLOYEE shall annually accrue 296 hours of Annual Leave. Annual Leave shall be subject to CITY's Personnel Rules and Regulations as they apply to other Executive Management employees.

3.3 Automobile Allowance. EMPLOYEE shall be entitled to an automobile allowance as compensation for the use of personal automobile(s) for CITY business as provided for in CITY policies. This monthly allowance shall equal the amount provided to other Executive Management employees, and is currently five hundred dollars ($500) per month. In addition, EMPLOYEE shall be entitled to excess mileage reimbursement according to adopted CITY policies for any qualifying trip in the course and scope of employment.

4. Termination.

4.1 The City Council may terminate EMPLOYEE'S employment, and this Agreement "for cause" at any time upon written notice. "For cause" is defined as any of the following: (i) an act in bad faith and to the detriment of the City; (ii) refusal or failure to act in accordance with any specific lawful direction or order of the City Council; (iii) unfitness or unavailability for service that exceeds thirty (30) consecutive calendar days and is not the result of any excused illness or medical condition; (iv) commission of an act involving moral turpitude or other acts which harm the reputation of or interests of the City; (v) habitual neglect of responsibilities, or incompetence; (vi) a conviction of a felony or other crime punishable by jail or imprisonment in the jurisdiction involved (or entry of a plea of guilty or *nolo contendere* with respect to any such crime); (vii) possession of, use of, or working while under the influence of alcoholic beverages or other non-prescribed controlled substances or abuse/misuse of lawfully prescribed controlled substances during working hours; (viii) engaging in an actual conflict of interest; (ix) commission of acts of theft, embezzlement, or fraud; (x) acceptance of bribes or extortion; (xi) material breach of this Agreement by EMPLOYEE. If this Agreement is terminated by the City Council "for cause," EMPLOYEE'S employment shall be deemed immediately terminated and EMPLOYEE shall surrender all CITY keys, computer passwords, and other CITY property entrusted to EMPLOYEE for the purposes of the discharge of her duties. Upon termination for cause, EMPLOYEE shall have no recourse under this AGREEMENT or any administrative procedure for purposes of challenging the termination action.

4.2 In the event EMPLOYEE is terminated "without cause" or asked to resign during such time that EMPLOYEE is willing and able to perform the Duties under this Agreement, then CITY agrees, upon receipt of a Comprehensive General Release and Settlement Agreement in the standard form signed by EMPLOYEE, to pay EMPLOYEE a lump sum cash payment equal to 6-months of Salary and Benefits [Section 3] as severance pay.

4.3 EMPLOYEE shall receive a lump sum payout of any unpaid accruals of Annual Leave and Sick Leave upon termination of employment for any reason pursuant to CITY policies.

Attachment: Employment Agreement - Jacquez-Nares City Clerk [Revision 2] (2472 : APPROVAL OF EMPLOYMENT AGREEMENT WITH

4.4 EMPLOYEE shall not be entitled to any increases in Salary or benefits afforded by CITY to other Executive Management employees following the date of termination.

4.5 This Agreement may be terminated by EMPLOYEE at any time upon 45 days written notice to the City Council. If such written notice is given, the City has the option to ask EMPLOYEE to leave her position sooner than the expiration of 45 days, but, if it does so, the City will continue to honor its obligations under this Agreement until expiration of the 45-day period.

4.6 EMPLOYEE'S employment and this Agreement shall terminate automatically upon EMPLOYEE'S death. In this event, the City shall pay the beneficiary designated by EMPLOYEE in writing, or in the absence of such designation, EMPLOYEE'S estate, her accrued and unpaid compensation, and all accrued but unused benefits, if any, through the date of EMPLOYEE'S death.

4.7 If EMPLOYEE becomes disabled and requires accommodation to permit her to perform the essential functions of the position, the City shall provide reasonable accommodation if possible and unless doing so creates undue hardship for the City.

5. Proprietary Information.

"Proprietary Information" is all information and any idea pertaining to any economic development engaged in or contemplated by the City (or any CITY affiliate), including marketing plans and development projects. Proprietary Information shall include, without limitation, trade secrets (as further defined in Uniform Trade Secrets Act, Civil Code §3426 et seq.), ideas, inventions, processes, formulae, data, know-how, software and other computer programs, copyrightable material, marketing plans, strategies, sales, financial reports, and forecasts. During her employment by CITY, EMPLOYEE shall only use Proprietary Information for the benefit of CITY and as is or may be necessary to perform her job responsibilities under this Agreement. Following termination, EMPLOYEE shall not use or disclose any Proprietary Information for the benefit of herself or any third party, except with the express written consent of CITY. EMPLOYEE'S obligations under this Section shall survive the termination of her employment and the termination of this Agreement.

6. Conflict Of Interest.

EMPLOYEE represents and warrants to CITY that she presently has no interest, and represents that she will not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or interfere in any way with performance of her services under this Agreement.

7. General Provisions.

7.1 Vehicle Operation. EMPLOYEE shall operate any vehicle used in connection with the performance of her duties in a safe manner and otherwise in observance of all established traffic safety laws and ordinances and shall maintain a valid California automobile's driver's license during the period of employment. In addition, EMPLOYEE shall maintain in full force and effect during the Term of this Agreement, valid automobile liability insurance providing coverage for collision, personal injury and medical reimbursement, in accordance with the City's Administrative Policy.

7.2 Notices. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be effective upon delivery by hand or three (3) business

Attachment: Employment Agreement - Jacquez-Nares City Clerk [Revision 2] (2472 : APPROVAL OF EMPLOYMENT AGREEMENT WITH

days after deposit in the United States mail, postage prepaid, certified or registered, and addressed to CITY at the address below, and at the last known address maintained in EMPLOYEE'S personnel file. EMPLOYEE agrees to notify CITY in writing of any change in his/her address during his/her employment with CITY. Notice of change of address shall be effective only when accomplished in accordance with this Section.

CITY: City of Moreno Valley c/o City Council
P.O. Box 88005 14177 Frederick Street Moreno Valley, California 92552-0805
EMPLOYEE: Ms. Patricia Jacquez-Nares

7.3 Indemnification. Subject to, in accordance with, and to the extent provided by the California Tort Claims Act [Government Code Section 810 *et* seq.] the CITY will indemnify, defend, and hold EMPLOYEE harmless from and against any action, demand, suit, monetary judgment or other legal or administrative proceeding, and any liability, injury, loss or other damages, arising out of any act or omission associated with EMPLOYEE'S performance of functions, duties and services set forth in this Agreement.

7.4 Bonding. The CITY shall bear the full cost of any fidelity or other bonds required of EMPLOYEE under any law or ordinance.

7.5 Integration. This Agreement is intended to be the final, complete, and exclusive statement of the terms of EMPLOYEE'S employment by CITY. This Agreement supersedes all other prior and contemporaneous agreements and statements, whether written or oral, express or implied, pertaining in any manner to the employment of EMPLOYEE, and it may not be contradicted by evidence of any prior or contemporaneous statements or agreements. To the extent that the practices, policies, or procedures of CITY, now or in the future, apply to EMPLOYEE and are inconsistent with the terms of this Agreement, the provisions of this Agreement shall control.

7.6 Amendments. This Agreement may not be amended, altered or modified, except in a written document signed by EMPLOYEE, and signed by the City Council.

7.7 Waiver. Failure to exercise any right under this Agreement shall not constitute a waiver of such right.

7.8 Assignment. EMPLOYEE shall not assign any rights or obligations under this Agreement. CITY may, upon prior written notice to EMPLOYEE, assign its rights and obligations hereunder.

7.9 Severability. If a court holds any provision of this Agreement to be invalid, unenforceable, or void, the remainder of this Agreement shall remain in full force and effect.

7.10 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of California, with venue proper only in Riverside County, State of California.

7.11 Interpretation. This Agreement shall be construed as a whole, according to its fair meaning, and not in favor of or against any party. By way of example and not in limitation, this Agreement shall not be construed in favor of the party receiving a benefit or

Attachment: Employment Agreement - Jacquez-Nares City Clerk [Revision 2] (2472 : APPROVAL OF EMPLOYMENT AGREEMENT WITH

against the party responsible for any particular language in this Agreement. Captions are used for reference purposes only and should be ignored in the interpretation of the Agreement.

7.12 Acknowledgment. EMPLOYEE acknowledges that she has had the opportunity to consult legal counsel in regard to this Agreement, that she has read and understands this Agreement, that she is fully aware of its legal effect, and that she has entered into it freely and voluntarily and based on her own judgment and not on any representations or promises other than those contained in this Agreement.

IN WITNESS WHEREOF, the CITY has caused this Agreement to be signed and executed on its behalf by its City Council, and EMPLOYEE has signed and executed this Agreement, as of the date first indicated above.

PATRICIA JACQUEZ-NARES

Date: _____

_____
Employee

CITY OF MORENO VALLEY

Date: _____

By: _____
Mayor

Attachment: Employment Agreement - Jacquez-Nares City Clerk [Revision 2] (2472 : APPROVAL OF EMPLOYMENT AGREEMENT WITH

Report to City Council

TO: Mayor and City Council Acting in its Capacity as Chairman and Commissioners of the Moreno Valley Housing Authority (HA)

FROM: Marshall Eyerman, Chief Financial Officer

AGENDA DATE: February 7, 2017

TITLE: RESOLUTIONS OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY AND THE CITY COUNCIL IN ITS CAPACITY AS COMMISSIONERS OF THE CITY OF MORENO VALLEY HOUSING AUTHORITY TO AUTHORIZE AND APPROVE AN EXTENSION OF TIME UNDER THE HEALTH AND SAFETY CODE SECTION 33334.16 FOR DEVELOPMENT OF AFFORDABLE HOUSING

RECOMMENDED ACTION

Recommendations:

1. Adopt Resolution No. HA 2017-01, A Resolution of the Moreno Valley Housing Authority of the City of Moreno Valley, California, Requesting that the City Council of the City of Moreno Valley Request an Extension of Time Under Health and Safety Code Section 33334.16.

SUMMARY

This report recommends that the City Council and the City Council in their Capacity as Commissioners of the Moreno Valley Housing Authority ("Housing Authority") authorize and approve resolutions to grant an extension of time to the maximum period allowed in accordance with California's Health and Safety Code Section 33334.16 for the deployment of properties acquired with low and moderate income housing funds for the development of affordable housing.

DISCUSSION

On March 8 2011, the City Council adopted Resolution No. 2011-25 in response to the Governor's 2011-2012 proposed budget that included a plan to potentially dissolve redevelopment agencies and distribute redevelopment funding to local agencies to pay necessary outstanding debts. Resolution No. 2011-25 established a local Housing Authority to carry out the ministerial actions as authorized under Housing Authority Law. The Resolution provided for such activities as ongoing monitoring of covenant units for compliance as to income limits and affordability, the maintenance of properties, the ability to enter into agreements with developers for the construction, maintenance and operation of housing developments and the ability to enter into other contracts and provide those services as the Housing Authority Law authorizes.

On April 25, 2012, Resolution Nos. OB 2012-08 and OB 2012-09 were approved by the Oversight Board for the Successor Agency to the Community Redevelopment Agency ("RDA") of the City of Moreno Valley. Resolution No. OB 2012-08 ratified the list of properties held by the former RDA and allowed for the transfer of these Housing Properties to the Moreno Valley Housing Authority. Resolution No. OB 2012-09 ratified the list of housing assets held by the former RDA and allowed for the transfer of these Housing Assets (multi-family and home assistance loans along with assistance programs) to the Moreno Valley Housing Authority.

With the dissolution of redevelopment agencies and in accordance with California's Health and Safety Code Section 33334.16 the deployment of properties acquired with low and moderate income housing funds for the development of affordable housing has a time limit under which properties acquired may be deployed. That time limit is five (5) years.

In October of 2013, the California Legislature approved Senate Bill No. 341 (SB 341). According to this bill the five year time limit redevelopment agencies were given could be extended to initiate activities consistent with the development of affordable housing for low and moderate income families once acquired or from the time it was transferred to a housing successor agency. In accordance with SB 341 the host jurisdiction has the option of extending that five year period by enactment of a resolution, which would extend the time the Housing Authority has available to deploy property for the purpose of developing affordable low and moderate income housing.

Based on SB 341, the City desires to exercise the option to extend the five year time period. This can be accomplished through the authorization and approval of the resolution as listed in this report's Recommended Actions. Approval of the resolution will allow an extension of time for a period of no more than an additional five years in order to deploy the property held by the Moreno Valley Housing Authority, the purpose of which is to provide for additional low and moderate income housing in the community.

ALTERNATIVES

1. Approve the Recommended Action to approve the resolution to authorize and approve the extension of time for the deployment of property held by the City's Housing Authority in accordance with SB 341 and the Health and Safety Code

Section 33334.16 to be used directly or indirectly in the manner prescribed by Section 33334.16. *This alternative allows the City's Housing Authority additional time to successfully deploy housing assets, which includes property, for the purpose of developing low and moderate income housing*. *This alternative will allow homes to be developed to house families whose incomes fall within the low and moderate income levels.*

2. Do not approve the Recommended Action to approve the resolution to authorize the extension of time for the deployment of property held by the City's Housing Authority in accordance with SB 341 and the Health and Safety Code Section 33334.16 to be used directly or indirectly in the manner prescribed by Section 33334.16. *This alternative will prevent the City's Housing Authority additional time to successfully deploy housing assets*. *Additionally, in accordance with SB 341, if the time period is not extended, the property must be sold and the monies from the sale, less reimbursement to the agency for the cost of the sale, be deposited in the Low and Moderate Income Housing Fund. These funds may not be enough to fund an equal amount of property that the Housing Authority currently holds, which would lead to less housing opportunities for low and moderate income families.*

FISCAL IMPACT

Currently the City of Moreno Valley Housing Authority holds properties that were acquired for the purpose of providing low and moderate income families with safe and affordable housing opportunities. If the time to deploy these properties expires and housing is not constructed the City may not be able to utilize these properties for future development.

NOTIFICATION

N/A.

PREPARATION OF STAFF REPORT

Prepared By:
Sharon Goodale-Sharp
Management Analyst

Department Head Approval:
Marshall E. Eyerman
Chief Financial Officer/City Treasurer

CITY COUNCIL GOALS

Revenue Diversification and Preservation. Develop a variety of City revenue sources and policies to create a stable revenue base and fiscal policies to support essential City services, regardless of economic climate.

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

ATTACHMENTS

1. Resolution Approving an Extension of Time

APPROVALS

Budget Officer Approval	✓ Approved	1/20/17 11:34 AM
City Attorney Approval	✓ Approved	1/25/17 9:15 AM
City Manager Approval	✓ Approved	1/26/17 9:00 AM

Attachment: Resolution Approving an Extension of Time [Revision 4] (2442 : RESOLUTIONS OF THE CITY COUNCIL AND THE CITY COUNCIL

RESOLUTION NO. HA 2017-01

A RESOLUTION OF THE MORENO VALLEY HOUSING AUTHORITY OF THE CITY OF MORENO VALLEY, CALIFORNIA, REQUESTING THAT THE CITY COUNCIL OF THE CITY OF MORENO VALLEY REQUEST AN EXTENSION OF TIME UNDER HEALTH AND SAFETY CODE SECTION 33334.16

WHEREAS, in connection with the dissolution of the Community Redevelopment Agency of the City of Moreno Valley ("Former Agency"), the transfer from the Former Agency to the Moreno Valley Housing Authority ("Authority") of certain properties that had been acquired with moneys from the low- and moderate-income housing fund was authorized during February 2012; and

WHEREAS, California Health and Safety Code Section 33334.16 ("Section 33334.16") sets forth a time for certain properties to be deployed for use for the development of affordable housing, which time may be extended upon approval of a resolution so providing by the legislative body; and

WHEREAS, the Authority has engaged in considerable efforts, including negotiations with developers with regard to the marketing of properties for affordable housing purposes. However, the realization of projects has in many instances been complicated and frustrated by the loss of redevelopment funding resources, among other circumstances; and

WHEREAS, the Authority requests that the City Council of the City of Moreno Valley ("City Council"), as the legislative body for purposes of Section 33334.16, approve an extension of time to the maximum period allowable under Section 33334.16 as to all properties the transfer of which was authorized to the Authority, including without limitation those properties enumerated in Exhibit "A" hereto (all of which properties, including without limitation those listed in Exhibit "A" hereto, collectively, the "Property").

NOW, THEREFORE, THE MORENO VALLEY HOUSING AUTHORITY DOES RESOLVE AS FOLLOWS:

Section 1. The Authority finds and determines that each of the recitals set forth above is true and correct.

Section 2. The Authority hereby requests that the City Council authorize an extension of time for the maximum period allowable under Section 33334.16.

Section 3. The Authority Secretary shall forward a copy of this Resolution to the City Clerk for dissemination to the City Council.

APPROVED AND ADOPTED this 7th day of February, 2017.

Mayor of the City of Moreno Valley,
Acting in the capacity of Chairman of the
Moreno Valley Housing Authority

ATTEST:

City Clerk, Acting in the capacity of
Secretary of the Moreno Valley
Housing Authority

APPROVED AS TO FORM:

City Attorney, Acting in the capacity
of General Counsel of the Moreno
Valley Housing Authority

Attachment: Resolution Approving an Extension of Time [Revision 4] (2442 : RESOLUTIONS OF THE CITY COUNCIL AND THE CITY COUNCIL

RESOLUTION JURAT

STATE OF CALIFORNIA)

COUNTY OF RIVERSIDE)

CITY OF MORENO VALLEY)

I, Marie Macias, Secretary of the Moreno Valley Housing Authority, of the City of Moreno Valley, California, do hereby certify that Resolution No. HA 2017-01 was duly and regularly adopted by the Commissioners of the Moreno Valley Housing Authority at a regular meeting thereof held on the 7th day of February, 2017, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____

HOUSING AUTHORITY SECRETARY

(SEAL)

Property

City of Moreno Valley
Inventory of Assets Received Pursuant to Heath and Safety Code Secton 34176 (a) (2)

Item #	Type of Asset[1]	Legal Title (APN)	Carrying Value of Asset	Total Sq. Ft.	Sq. ft. Reserved for Low-Mod. Housing	Is the Property Encumbered by a Low-Mod Housing Covenant?	Source of Low Mod Housing Covenant by Deed of Trust[2]	Date of Transfer to Housing Successor Agency[3]	Is Construction or Acquisition Costs Funded with Low-Mod Housing Funds?	Is Construction or Acquisition Costs Funded with other RDA Funds?	Is Construction or Acquisition Costs Funded with other Non-RDA Funds?	Date of Construction or Acquisition by the former RDA	Interest in Real Property (Option to purchase easement, etc.)
1	Land	291-191-027	$ 399,000	38,333	38,333	No		April 25, 2012	Yes			April 1, 2008	Fee
2	Land	291-191-028	$ 280,000	14,375	14,375	No		April 25, 2012	Yes			April 1, 2008	Fee
3	Land	291-191-029	$ 540,000	16,117	16,117	No		April 25, 2012	Yes			April 1, 2008	Fee
4	Land	291-191-026	$ 135,000	6,098	6,098	No		April 25, 2012	Yes			June 18, 2003	Fee
5	Land	291-191-025	$ 270,900	10,019	10,019	No		April 25, 2012	Yes			April 1, 2008	Fee
6	Land	291-191-007	$ 151,600	12,632	12,632	No		April 25, 2012	Yes			April 1, 2008	Fee
7	Land	291-191-008	$ 650,000	68,369	68,369	No		April 25, 2012	Yes			April 1, 2008	Fee
8	Land	291-191-009	$ 650,000	67,518	67,518	No		April 25, 2012	Yes			April 1, 2008	Fee
9	Land	291-191-010	$ 472,500	43,560	43,560	No		April 25, 2012	Yes			April 1, 2008	Fee
10	Land	291-191-011	$ 498,750	43,560	43,560	No		April 25, 2012	Yes			April 1, 2008	Fee
11	Land	291-191-012	$ 346,800	10,454	10,454	No		April 25, 2012	Yes			April 1, 2008	Fee
12	Land	291-191-013	$ 393,750	37,519	37,519	No		April 25, 2012	Yes			April 1, 2008	Fee
13	Land	481-270-058	$ 144,303	56,628	56,628	No		April 25, 2012	Yes			April 20, 1994	Fee
14	Land	481-130-022	$ 75,000	21,780	21,780	No		April 25, 2012	Yes			Sept. 14, 1992	Fee
15	Land	481-130-023	$ 75,000	18,295	18,295	No		April 25, 2012	Yes			Sept. 14, 1992	Fee
16	Land	482-020-064	$ 360,000	57,499	57,499	No		April 25, 2012	Yes			Aug. 23, 1995	Fee
17	Land	482-161-021	$ 137,500	174,676	174,676	No		April 25, 2012	Yes			Jan. 26, 1994	Fee
18	Land	482-161-022	$ 137,500	51,400	51,400	No		April 25, 2012	Yes			Jan. 26, 1994	Fee
19	Land	482-161-023	$ 137,500	100,188	100,188	No		April 25, 2012	Yes			Jan. 26, 1994	Fee
20	Land	482-161-024	$ 137,500	49,223	49,223	No		April 25, 2012	Yes			Jan. 26, 1994	Fee
21	Land	485-032-013	$ 137,466	8,712	8,712	No		April 25, 2012	Yes			July 2, 2001	Fee
22	Land	486-084-006	$ 30,000	4,356	4,356	No		April 25, 2012	Yes			Nov. 27, 2007	Fee
23	Land	486-084-011	$ 30,000	4,656	4,656	No		April 25, 2012	Yes			Jan. 28, 2008	Fee

Footnotes:

[1]Asset types may include log-mod housing, mixed-income housing, low-mod housing with commercial space, mixed-income housing with commercial space.

[2] May include California Redevelopment Law, tax credits, state bond indentures, and federal fund requirements.

[3] Date of action by Oversight Board; and as of 2/1/2012 due to AB X 1 26.

Attachment: Exhibit A to Resolution No. HA 2017-01 (2442 : RESOLUTIONS OF THE CITY COUNCIL AND

Report to City Council

TO:	Mayor and City Council
FROM:	Marshall Eyerman, Chief Financial Officer
AGENDA DATE:	February 7, 2017
TITLE:	PUBLIC HEARING TO COLLECT COMMUNITY NEEDS COMMENTS & ADOPT 2017-18 OBJECTIVES & POLICIES

RECOMMENDED ACTION

Recommendations: That the City Council:

1. Conduct a Public Hearing to allow for the public to comment on the needs of low-and-moderate income residents in Moreno Valley.

2. Approve the proposed CDBG, HOME, and ESG Grant Objectives and Policies for the 2017-2018 Program Year.

SUMMARY

The City is commencing with the recurring set of administrative activities necessary for the Office of Housing and Urban Development (HUD) to receive the City of Moreno Valley's FY 2017-18 Annual Action Plan Update by the mandatory federal deadline of May 17, 2017. The Annual Action Plan serves as the City's grant application to HUD for approximately $2.7M in federal funds. Objectives and policies must be included in the City's Action Plan. This staff report recommends the Council adopt the proposed objectives and policies, and adopt the Public Services Ranking issued last fiscal year.

DISCUSSION

Anticipated Grants

Every year, the Department of Housing and Urban Development (HUD) allocates federal grant monies to qualifying entitlement cities such as the City of Moreno Valley. Entitlement cities receive funding based on a formula that considers the city's demographics. Currently, Moreno Valley receives three separate allocations known as: (1) the Community Development Block Grant (CDBG), (2) the Emergency Solutions

Grant (ESG) and (3) the HOME Investment Partnership Program (HOME). These grants are used to provide services to benefit low-and-moderate income persons who meet specific income criteria (see Attachment 1 for the 2016 Income Levels). Eligible CDBG grant activities range from social services to capital improvements to business and employment development. HOME funds must be used toward housing programs and creation of affordable housing. ESG funds are used to assist the city's homeless and those threatened with homelessness.

Based on last fiscal year's entitlement allocations, staff anticipates that the 2017-18 CDBG grant to be approximately $1.9 million, the HOME grant to be approximately $527,000, and the ESG allocation to be about $182,000. Attachment 2 details eligible and ineligible activities for each program.

HUD requires that cities concentrate their programs in areas determined to contain residents of which at least 51% earn low-to-moderate incomes, these areas are referred to as 'CDBG Target Areas.' CDBG Target areas are re-evaluated every 10 years and are under review for modification based on updated census data. For a map of the current Moreno Valley's CDBG Target Areas please see Attachment 3.

Consolidated Planning

Each entitlement city must prepare a 5-year planning document known as the Consolidated Plan which establishes long-term performance goals. Moreno Valley's current Consolidated Plan was adopted in FY 2013-14 and will remain in effect through the end of FY 2018-19. For each individual Consolidated Plan year, entitlement cities must prepare a separate planning document called the Annual Action Plan Update. The Annual Action Plan identifies more specifically how the City will allocate grant funds for the upcoming fiscal year while meeting the goals established in the 5-year Consolidated Plan. Each Annual Action Plan must include up-to-date Objectives and Policies for all active grant programs.

CDBG, HOME, and ESG program year activities are planned so that HUD will receive the 2017-18 Annual Action Plan by the mandatory federal deadline (May 17, 2017). Prior to submittal, the City is required to complete a series of sequential activities including mandatory Public Hearings to:

1. Adopt current Objectives and Policies (tonight),
2. Recommend CDBG and HOME Project Selections – Finance Subcommittee meeting (February 2017), and
3. Adopt the program year Annual Action Plan – City Council meeting (April/May 2017).

A more detailed calendar of activities is included as Attachment 4. These activities must be completed on schedule for the FY 2017-18 Annual Action Plan to be submitted on time.

Mandatory 'Citizen Participation'

HUD requires cities to complete a 'Citizen Participation Process' before the project selection can be finalized. Citizen Participation is intended to encourage active and informed participation in the programs by members of the public. Each year as part of

this process, the City must hold at least two Public Hearings to receive input on the current 'needs' of its low-to-moderate income residents. Tonight's meeting represents one of the required meetings. Attendees are asked to comment on issues and problems affecting low-to-moderate income persons so that the City makes informed funding decisions. Comments received at these meetings are taken into consideration when selecting projects for the coming fiscal year.

Purpose of Updating the Objectives and Policies

Moreno Valley's Objectives and Policies must be re-evaluated each year to ensure they adequately reflect the current needs of the community. The updated Objectives and Policies must then be adopted by the City Council for the upcoming program year. Objectives and Policies focus on: (1) defining the City's funding priorities, (2) offering project selection criteria, and (3) providing guidance for staff when reviewing and recommending programs and projects for funding. Objectives and Policies are distributed to non-profit agencies who are interested in applying for funding to develop a local social service program in Moreno Valley and convey important information about the eligible categories of programs and the City's priorities.

For the upcoming year, staff is not recommending adding any new objectives or policies. The recommendation is for one policy to be revised for clarity. The table below describes the revision:

Proposed Revision		
AFFECTED POLICY: **ESG Program Costs**	PREVIOUSLY READ: The City must ensure that all costs charged to ESG are allowable, allocable and reasonable for the proper performance and administration of the award. Direct and indirect project costs should reasonable relative to the total costs of the project. It is the City's preference that total employee compensation and other overhead costs directly related to carrying out street outreach, emergency shelter, homelessness prevention, and rapid re-housing not exceed 30% of an overall award amount.	REVISED TO READ: The City must ensure that all costs charged to ESG are allowable, allocable and reasonable for the proper performance and administration of the award. Direct and indirect project costs should reasonable relative to the total costs of the project. If indirect costs apply to your program, an indirect cost rate proposal will need to be developed per ESG program regulations (24 CFR 576.109 and 2 CFR part 225).

2017-18 Recommendation of Priority Ranking under the 'Public Services' Objective

An eligible use of CDBG monies is 'Public Services.' Public Services can include, but are not limited to, food banks, public safety, specialized counseling, and foster youth services that benefit the City's low income households. HUD limits the monies that can be used toward Public Services to 15% of the overall annual CDBG allocation, which for Moreno Valley averages approximately $280,000 per year. Because these particular monies are very limited and the demand is so high, staff has established a priority ranking within this objective category that assists in reaching decisions on which programs are best suited for the community within a given year.

After research, review of public service monthly reports, including those provided by the City's subrecipients serving the City's low-and-moderate income population, public comments received to date, staff recommends the following priority ranking under the **Public Service Objective** continue as:

(1) 'Basic Needs' Related Social Services Programs (such as but not limited to emergency food, shelter (homelessness), and utility assistance)
(2) Community Public Safety Programs
(3) Employment Services/Programs and Job (Skills) Training
(4) Programs offering Low-Cost Transportation
(5) Free/Low-Cost programs for School-Aged Youth

The City seeks to address the most urgent 'needs' of its residents first. Because of the documented public demand for the 'basic needs' staff recommends the top priority carry into the new program year. Due to the City's dedication to the safety of its residents, and to economic development/job creation, staff recommends priorities two and three remain unchanged. Finally, staff wishes to keep low and no-cost transportation programs and youth programs a priority as these programs primarily benefit the senior community, the City's disabled population, and Moreno Valley's youth.

ALTERNATIVES

1. Staff recommends that the City Council conduct a Public Hearing, receive comments, and adopt the proposed CDBG, HOME, and ESG Objectives and Policies as listed on Attachment 5. Doing so will meet HUD's requirements, as well as provide the public and staff with direction regarding funding proposals for FY 2017-18.

2. The City Council may amend or reprioritize any of the proposed Objectives and Policies.

FISCAL IMPACT

The approval of Objectives and Policies will not impact the General Fund or funding sources other than CDBG, HOME, and ESG. These funds are restricted and may only be used for projects and programs as allowed by HUD.

At the time of this staff report submittal, HUD has not released the amounts of the 2017-18 grant allocations. Based on last fiscal year's entitlement allocations, staff anticipates that the 2017-18 CDBG grant shall be approximately $1.9 million, the HOME grant to be approximately $527,000, and the ESG allocation approximately $200,000.

As an important note, CDBG and HOME grants do not require matching funds. The ESG does require matching funds; however the city places the responsibility of the match on the ESG subrecipient.

NOTIFICATION

Notice of this meeting was published in the local section of *The Press-Enterprise* newspaper on January 21, 2017.

PREPARATION OF STAFF REPORT

Prepared By:
Isa Rojas
Management Analyst

Department Head Approval:
Marshall Eyerman
City Financial Officer/City Treasurer

Concurred By:
Dena Heald
Financial Operations Division Manager

CITY COUNCIL GOALS

Community Image, Neighborhood Pride and Cleanliness. Promote a sense of community pride and foster an excellent image about our City by developing and executing programs which will result in quality development, enhanced neighborhood preservation efforts, including home rehabilitation and neighborhood restoration.

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

Objective 2.4: Work with government and non-government agencies to reduce homelessness in the City.

Objective 5.4: Actively and aggressively address homelessness in Moreno Valley.

Objective 6.1: Provide employment training and support for Moreno Valley youth between the ages of 16 – 21 years.

ATTACHMENTS

1. Income Limits
2. Eligible & Ineligible Grant Activities
3. CDBG Target Areas Map
4. Action Plan Calendar
5. Proposed Objectives and Policy 17-18

APPROVALS

Budget Officer Approval	✓ Approved	1/18/17 5:01 PM
City Attorney Approval	✓ Approved	1/25/17 11:47 AM
City Manager Approval	✓ Approved	1/26/17 9:36 AM

2016 INCOME LIMITS

Revised Annually by the Dept. of Housing & Urban Development (HUD)

Annual Income Level	% of Area Median	Number of Persons In Household							
		1	2	3	4	5	6	7	8
Extremely Low Income	30%	$13,450	$16,020	$20,160	$24,300	$28,440	$32,580	$36,730	$40,89
Very Low Income	50%	$22,400	$25,600	$28,800	$31,950	$34,550	$37,100	$39,650	$42,20
Low Income	80%	$35,800	$40,900	$46,000	$51,100	$55,200	$59,300	$63,400	$67,50

Attachment: Income Limits (2427 : PUBLIC HEARING TO COLLECT COMMUNITY NEEDS COMMENTS & ADOPT 2017-18 OBJECTIVES &

Eligible CDBG Activities

- Acquisition, design, construction, rehabilitation, or installation of certain publicly owned facilities such as:
  - Parks, playgrounds and recreational facilities.
  - Senior centers, except 24-hour care facilities.
  - Neighborhood facilities.
  - Fire protection facilities and equipment.
  - Parking facilities.
  - Street improvements.
  - Flood, drainage, or sewer facilities.
  - Other improvements vital to a community's development.
- Acquisition of property that is: of historic value; appropriate for beautification or conservation of open spaces; appropriate for low or moderate-income housing.
- Clearance and demolition of buildings and land which may be a health hazard to the community. Interim assistance or temporary help to alleviate harmful or dangerous conditions.
- Removal of architectural barriers which restrict the mobility of handicapped persons.
- Rehabilitation and preservation of buildings and improvements, both publicly and privately owned.
- Code enforcement in designated target areas.
- Historic preservation activities.
- Eligible economic development activities.
- Eligible planning and environmental design costs.
- Public services including, but not limited to: fair housing activities, public safety services, homeless services, senior citizen services, educational programs, youth services, drug abuse counseling & treatment and recreation programs.

Ineligible CDBG Activities

- Buildings for the general conduct of government, such as city halls, courthouses, and police stations.
- Stadiums, sports arenas, auditoriums, museums and central libraries (Note: branch libraries may be built in CDBG Target Areas).
- Purchase of equipment such as construction equipment, fire protection equipment, furnishings, and personal property.
- Schools
- Airports, subways, bus or other stations.
- Hospitals, nursing homes, and other medical facilities.
- Treatment works for liquid industrial wastes or sewage.
- Expenses of general government for operation and maintenance of public facilities.
- Political activities.
- Direct income payments to residents.

Final eligibility is determined per the US Department of Housing & Urban Development regulations and guidance. For more information please visit: https://www.hudexchange.info/programs/cdbg-entitlement/cdbg-entitlement-program-eligibility-requirements/

Eligible HOME Activities

- Incentives provided by Participating Jurisdictions (the City of Moreno Valley is a Participating Jurisdiction) to develop and support affordable rental housing and homeownership affordability through acquisition, new construction, reconstruction, or rehabilitation of non-luxury housing (including manufactured housing).
- Operating expenses and capacity building costs for eligible Community Housing Development Organizations (CHDO).
- Eligible administrative and planning costs.

Ineligible HOME Activities

- Project reserve accounts or operating subsidies.
- Tenant-based rental assistance for the special purposes of the Section 8 program.
- To provide non-federal matching contributions.
- To provide assistance to annual contributions for the operation of public housing.
- Modernization of public housing.
- Prepayment of low-income housing mortgages.
- Assistance to a project previously assisted with HOME funds during the period of affordability.

Final eligibility is determined per the US Department of Housing & Urban Development regulations and guidance. For more information please visit: https://www.hudexchange.info/programs/home/home-overview/

ELIGIBLE ESG ACTIVITIES

- Homelessness Prevention,
- Street Outreach,
- Emergency Shelter,
- Rapid Rehousing Assistance,
- Homeless Management Information Systems (HMIS), and
- Administrative Activities

INELIGIBLE ESG ACTIVITIES (under each category)

Emergency Shelter Renovation, Rehabilitation or Conversion

- Acquisition of real property
- New construction
- Property clearance or demolition
- Rehabilitation administration
- Staff training or fund raising activities associated with rehabilitation
- Building maintenance and repairs

Operational Costs/Facility Operations

- Recruitment or on-going training of staff
- Depreciation
- Costs associated with the organization rather than the supportive housing
- Project (advertisements, pamphlets about organization, surveys, etc.)
- Staff training, entertainment, conferences, or retreats
- Public relations or fund raising
- Bad debts/late fees
- Mortgage payments
- Preparation of application submissions
- Conferences or training in professional fields
- Salary of organization's executive director or other staff for administrative purposes

Essential Services/Client Services

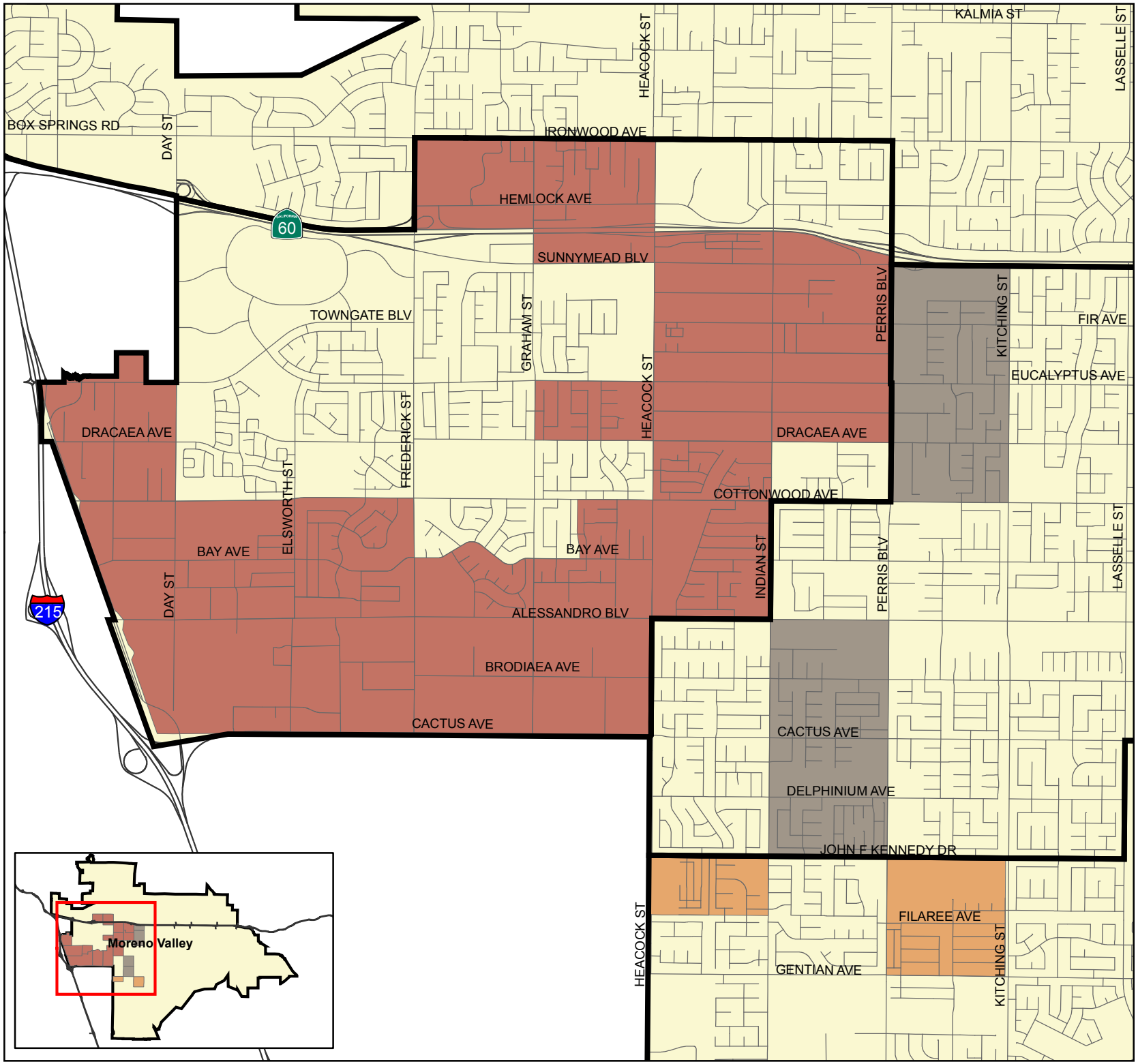
- Existing services and staff (services must be new or provided to more persons)
- Salary of case management supervisor when not working directly on participant issues
- Advocacy, planning, and organizational capacity building
- Staff recruitment/training
- Transportation costs not directly associated with service delivery

Homelessness Prevention Activities and Rapid Rehousing Activities

- Long-term assistance beyond medium-term assistance limits per Written Standards.
- Employment training or child care
- Mortgage costs or other expenses needed by homeowners for fees, taxes, or other costs of refinancing a mortgage
- Construction or rehabilitation
- Credit card bills or consumer debt
- Car repair or transportation costs
- Food
- Medical, dental care or medication
- Clothing and grooming costs
- Home furnishings
- Pet care
- Entertainment activities
- Work or education-related materials
- Cash or direct payment assistance to program participants
- Discharge planning initiatives
- Hotel and motel stays
- Providing assistance to renters residing in a property owned by the grantee, sub-grantee or the parent, subsidiary or affiliated organization of the sub-grantee
- Renter's or Homeowner's Insurance

Final eligibility is determined per the US Department of Housing & Urban Development regulations and guidance. For more information please visit: https://www.hudexchange.info/programs/esg/esg-requirements/

CITY OF MORENO VALLEY CDBG TARGET AREAS



CDBG Districts

- District 1
- District 3
- District 4
- Council District Boundaries
- Moreno Valley

N

0 1,250 2,500 Feet

0 0.25 0.5 Miles

Map Produced by Moreno Valle Geographic Information Syste
Geographic Information in:
State Plane NAD 83 California Zone 6 I
G:\ArcMap\Neighborhood Preservatic
CDBG_Target_Areas2017.mxd
January 30, 2017

The information shown on this map was comp from the Riverside County GIS and the City Moreno Valley GIS. The land base and facili information on this map is for display purpos only and should not be relied upon withou independent verification as to its accuracy. Riverside County and City of Moreno Valley not be held responsible for any claims, losse or damages resulting from the use of this ma

MORENO VALLEY
WHERE

Attachment: CDBG Target Areas Map [Revision 1] (2427 : PUBLIC HEARING TO COLLECT COMMUNITY

Attachment 4

Attachment: Action Plan Calendar (2427 : PUBLIC HEARING TO COLLECT COMMUNITY NEEDS COMMENTS & ADOPT 2017-18 OBJECTIVES &

FY 2017-2018 Annual Action Plan & Citizen Participation Schedule

December 7, 2016	Finance Subcommittee Meeting to Introduce 2017-18 Action Plan Schedule
January 2, 2017	Post Notice of Funding Availability (NOFA) at City satellite locations and e-mail persons on interest list
January 2, 2017	Publication of Notice: Notice of Funding Availability/Application. *APPLICATIONS AVAILABLE FOR DISTRIBUTION.*
January 2, 2017	Make announcement of application availability via different media: Press release, City website, Facebook, City cable channel, etc.
January 2, 2017	Application Workshop available online
January 13, 2017	In-Person Application Workshop, *Not Mandatory*
January 30, 2017	*Applications Due from Non-Profits and City/In-House Applicants*
February 7, 2017	Public Hearing 1: Public Hearing to Adopt Objectives/Policies & Collect Community Needs Comments
Jan. 31 - Feb. 13, 2017	Initial Review of Applications
February 28, 2017	*Technical Review Committee Meeting. Open to Applicants.* This meeting shall provide applicants an opportunity to explain programs in person and allow TRC to ask applicants questions directly.
February 28, 2017 - March 20, 2017	Riverside County Continuum of Care to Review Proposed ESG activities
March 21, 2017	Public Hearing to Approve Projects for Inclusion in FY 2017-18 Action Plan
April 5, 2017	Beginning of 30-Day Action Plan Public Comment/Review Period
May 5, 2017	Close of 30 - Day Action Plan Public Comment/Review Period
May 9, 2017	Public Hearing 3 to Approve FY 2017-18 Action Plan
May 15, 2017	Submittal of 2017-18 Action Plan to HUD

- Dates subject to change. Prospective Applicants shall be notified of any changes.

Attachment 5

FY 2017-18 Proposed CDBG, HOME, & ESG Objectives and Policies

The City of Moreno Valley has established the following Objectives and Policies in order to give maximum priority to projects and activities that will benefit low-to-moderate income residents. Proposed programs for the upcoming year should fit into one of the categories of Program Objectives. CDBG programs must also fit into one of the listed National Objectives. Staff will abide to the given Policies when reviewing proposed programs for potential funding.

CDBG National Objectives

In order for an activity or program to be eligible for CDBG funding, it must qualify as meeting one or more of the following three national objectives *as well as* one of the general program objectives below:

1) Activities Benefiting Low- and Moderate-income Persons and/or Households:
A low-to-moderate income person or household is one having an income equal to or less than the Section 8 lower income limits established by HUD. This objective includes direct services to the low-to-moderate income, services benefitting a low-income area, or 'limited clientele', who are designated groups presumed by HUD to automatically qualify as low-to-moderate income.

2) Activities Which Aid in the Prevention or Elimination of Slums or Blight: This objective can be achieved on a spot basis, area basis, or address blight in a designated urban renewal area.

3) Activities Designed to Meet Community Development Needs Having a Particular Urgency: This objective is given priority under formally declared state of emergencies and is normally used to alleviate urgent conditions caused by major catastrophes, natural disasters, or other emergencies that presents a serious and immediate threat to the health and welfare of the community.

Attachment: Proposed Objectives and Policy 17-18 (2427 : PUBLIC HEARING TO COLLECT COMMUNITY NEEDS COMMENTS & ADOPT 2017-18

GENERAL PROGRAM OBJECTIVES *(listed alphabetically)*

Capital Improvement Activities

Acquisition, design, construction, and installation of needed public facilities and improvements located in CDBG income eligible Target Areas where infrastructure is missing or substandard. Public facilities and improvements may include street improvements, storm drains, and water and sewer lines. Improvements shall facilitate pedestrian activity, eliminate flooding, and provide for safer streets within the Target Areas.

Economic Development Activities*

Expanded economic opportunities through micro-enterprise loan programs and counseling as well as employment and job skills programs to create and retain jobs for low-and-moderate persons.

Fair Housing Activities *

The promotion of housing choice and support of state and federal fair housing laws to ensure that all residents have access to a decent home in a suitable living environment in the City. Fair Housing activities are met by promoting and affirmatively furthering equitable housing opportunities through education, counseling, enforcement, and training.

This objective also includes the prevention of foreclosure through counseling, mediation, and case management for homeowners facing mortgage delinquency, default, or any stage of foreclosure, thereby maintaining safe, stable neighborhoods and community.

Health, Safety, and Public Welfare

Eliminating conditions which are detrimental to health, safety, and public welfare through interim rehabilitation, community policing, code enforcement, etc.

Historic Preservation*

Restoring and preserving properties formally designated as historic structures.

Homeless/Homeless Prevention Activities

Improve the quality of life for the city's homeless and those threatened with homelessness by extending emergency services aimed at assisting, protecting,

and improving the living conditions and ultimately stabilizing the housing situation of those individual(s).

Housing and Neighborhood Improvement Activities

Conserving and improving housing stock through rehabilitation of units occupied by low-and-moderate income households. Activities are designed to: (1) improve existing substandard or deteriorated housing stock that does not meet building, safety, or fire code and (2) achieve the goals identified in the City's Consolidated Plan.

Public Service Activities*

Improving the quantity and quality of public services, principally for low-and-moderate income persons, including the homeless, elderly, and disabled. The following services are identified by order of priority:

(1) 'Basic Needs' Related Social Services Programs (such as but not limited to emergency food, shelter (homelessness), and utility assistance)
(2) Community Public Safety Programs
(3) Employment Services/Programs and Job (Skills) Training
(4) Programs offering Low-Cost Transportation
(5) Free/Low-Cost programs for School-Aged Youth

Slum or Blight Activities

Elimination of slums and blight in order to prevent the deterioration of City neighborhoods, principally in the CDBG Target Areas.

**** These activities pertain to the CDBG Program only.***

Attachment: Proposed Objectives and Policy 17-18 (2427 : PUBLIC HEARING TO COLLECT COMMUNITY NEEDS COMMENTS & ADOPT 2017-18

POLICIES

In order to meet the objectives and ensure efficient use of CDBG, HOME, and ESG funds, the following policies have been established:

City Projects and Programs

Certain public improvements, such as storm drains, curb, gutter, and sidewalks may at the Council's discretion be given priority and that provide long term benefits to improve low-and-moderate income CDBG Target Areas. Examples of these City sponsored programs include Code Enforcement activities, Community Policing, and Neighborhood Clean-ups.

Provider Collaboration

Providers (local non-profits) that intend to provide similar services and programs to Moreno Valley's low-and-moderate residents shall be given funding priority for combining resources and efforts into a single program. Providers complete and submit a single CDBG or HOME application on behalf of the collaborating group. Funding priority would be given at the time of application review in the form of extra points on their overall application.

Local Services

Providers that are located in the City will be given funding priority when they are providing services equivalent to those offered by providers located outside the City.

The ultimate goal is to have services available and accessible within the City limits to serve all residents, especially those of low-and-moderate income. Prior to final selection of projects, other factors such as track record and experience will need to be considered.

Minimum Grant Level

A minimum grant level of $10,000 for CDBG, $25,000 for HOME, and $75,000 (excluding Homelessness Management Information Systems) for ESG has been established for the purpose of ensuring the most efficient use of these funds. Priority may be given to grant requests that exceed $15,000, subject to staffing and administrative capabilities.

Project and Program Funding

Pre-existing Projects and Programs having other funding sources will be given priority. Grant funding is intended to supplement a project or a program and not be its full funding source.

Federal funding varies from year to year as do the needs of the community. It is therefore important for a project or proposal to sustain itself should City funding

not be available. Such an approach will also provide for the maximum leveraging and impact.

Minimal Applicant Requirements

In order to ensure an applicant is adequately qualified to administer an activity per the federal statutes and regulations, a set of minimal applicant requirements shall be established for inclusion in the grant application. The requirements shall be reasonable and follow HUD recommendations. It is preferred that a minimum of three-years of successful grant management experience may be required. This must be supported by written documentation; for example conclusive audit results letter.

Multi-Year Contracts/Agreements

For CDBG and ESG, the City shall execute a standard subrecipient agreement and offer the possibility for a one-year extension. Extensions shall be issued only in instances where funding allows, the subrecipient has successfully completed the terms and performance goals in the agreement during the initial year, and shall also be subject to City Council approval.

ESG Match Requirements

Federal regulations require a 100% match for the ESG program. The City shall require the subrecipient be responsible for the full match.

The match may be met with a combination of cash or in-kind services. In-kind matches (as defined by HUD), including in-kind volunteer hours, may not exceed 25% of the full match requirement.

Proof of 100% match is required prior to a notice to proceed and the execution of a contract with the City. Initial documentation of proof of match, including initial award letters, shall be provided with the application for evaluation. Final verifiable third party documentation providing proof of award and availability of funds shall be provided before entering into contract with the City. If proof of award cannot be provided, then any award of ESG funds will be adjusted as necessary based on available match verified.

ESG Program Costs

The City must ensure that all costs charged to ESG are allowable, allocable and reasonable for the proper performance and administration of the award. Direct and indirect project costs should reasonable relative to the total costs of the project. ~~It is the City's preference that total employee compensation and other overhead costs directly related to carrying out street outreach, emergency shelter, homelessness prevention, and rapid re-housing not exceed 30% of an overall award amount.~~ If indirect costs apply to your program, an indirect cost rate proposal will need to be developed per ESG program regulations (24 CFR 576.109 and 2 CFR part 225).

Attachment: Proposed Objectives and Policy 17-18 (2427 : PUBLIC HEARING TO COLLECT COMMUNITY NEEDS COMMENTS & ADOPT 2017-18

Report to City Council

TO: Mayor and City Council

FROM: Allen Brock, Community Development Director

AGENDA DATE: February 7, 2017

TITLE: A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING COMMISSION'S DECEMBER 15, 2016 APPROVAL OF PEN16-0020 (PA16-0002), PLOT PLAN FOR A 446,350 SQUARE FOOT WAREHOUSE BUILDING ON 19.64 ACRES ON WEST SIDE OF INDIAN STREET, SOUTH OF GROVE VIEW ROAD IN THE MORENO VALLEY INDUSTRIAL AREA SPECIFIC PLAN 208. AN ENVIRONMENTAL IMPACT REPORT (EIR) WAS PREPARED FOR THE PROJECT. THE APPELLANT IS BLUM/COLLINS LLP. FOR THE SOCAL ENVIRONMENTAL JUSTICE ALLIANCE.

RECOMMENDED ACTION

Recommendations: That the City Council:

1. **APPROVE Resolution 2017-08.** A Resolution of the City Council of the City of Moreno Valley, California, denying the appeal and sustaining the December 15, 2016 actions of the Planning Commission and thereby the City Council CERTIFIES the Final Environmental Impact Report (EIR) PEN16-0019 (P16-003) included as Exhibit A, ADOPTS the Mitigation Monitoring and Reporting Program included as Exhibit B, ADOPTS the Findings and Statement of Overriding Considerations included as Exhibit C, and APPROVES Plot Plan PEN16-0020 (PA16-0002) with Conditions of Approval included as Exhibit D, for the Indian Street Commerce Center project, a 446,350 square foot warehouse building.

SUMMARY

An appeal was filed on December 22, 2016, challenging the entire Planning Commission actions of December 15, 2016 on the Indian Street Commerce Center project, a proposed 446,350 square foot warehouse building to be located within that portion of the City regulated by the Moreno Valley Industrial Area Specific Plan 208.

With the appeal, the appellant is requesting that the City Council reverse the entire Planning Commission decision approving the Environmental Impact Report for the project. The appeal was filed by the firm of Blum/Collins, LLP on behalf of the appellant, So Cal Environmental Justice Alliance. The appeal identifies a number of concerns related to the environmental process and potential impacts to the environment.

As set forth in Section 9.02.240 of the City's Municipal Code, any person aggrieved by a decision of the Planning Commission may appeal that decision to the City Council.

DISCUSSION

ADVISORY BOARD/COMMISSION RECOMMENDATION

The Planning Commission, at its December 15, 2016 meeting, approved Planning Commission Resolution 2016-24 by a 7-0 vote certifying the Environmental Impact Report, approving the Mitigation Monitoring and Reporting Program, and adopting the Statement and Overriding Considerations. Additionally, the Planning Commission approved Resolution 2016-25 by a 7-0 vote approving a Plot Plan for the proposed 446,350 square foot warehouse building and associated facilities on the 19.64 acre project site.

Project

The project includes a Plot Plan for a 446,350 square foot warehouse building on 19.64 acres located in the Moreno Valley Industrial Area Specific Plan 208. The project includes two alternatives project configurations within the proposed building shell to accommodate warehouse manufacturing or warehouse distribution, and supporting office space, depending on an ultimate tenant, which has not yet been identified. The overall footprint of the site, building and access points remain the same regardless of the use. There will be a maximum of 53 dock doors all located on the south side of the building with truck stacking provided along the north and west sides of the property, and parking facilities for both passenger vehicles and trucks. For additional detail on the project elements please refer to the December 15, 2016 Planning Commission report attached.

The proposed warehouse facility is a permitted use within the Industrial (I) zone of the Moreno Valley Industrial Area Specific Plan 208. The site is located in the southern portion of the City within the southern area of the Specific Plan, on the west side of Indian Street, south of Grove View Road. The Specific Plan is intended to provide locations for medium to heavy industrial and warehouse land uses.

Appeal

The Appeal of the Planning Commission's entire actions on the project at their December 15, 2016 meeting was submitted December 22, 2016 by the firm Blum/Collins LLP, on behalf of the appellant, SoCal Environmental Justice Alliance. The appeal was filed properly within the allotted 15-day appeal period (Attachment 2).

The appeal letter alleges the Planning Commission's environmental review process failed to ensure environmental, social and economic justice for the City of Moreno Valley residents. The concerns expressed in the appeal letter are consistent with, and include as a part, the October 7, 2016 letter from Joe Bourgeios, Chairman of the Board, SoCal Environmental Justice Alliance, that was submitted as a comment letter to the City on the Draft Environmental Impact Report (October 7th letter included as Attachment 2). No new information beyond that which was presented before the Planning Commission consideration of the project is provided in the appeal.

The October 7, 2016 letter was received by Planning staff on October 11, 2016, during the Draft EIR public review period, and entered into the case file as a component of the environmental record. Consistent with guidelines set forth in the California Environmental Quality Act, the contents of the letter were addressed and responses to the comments were prepared and included in the Final EIR documents considered by the Planning Commission.

Environmental

The Planning Commission, at its December 15, 2016 hearing, discussed the project and received two (2) public comments. Speaker One (1) addressed the Commission as a representative for the So Cal Environmental Justice Alliance. The speaker read concerns referring to those raised in their letter dated October 7, 2016. The speaker did not acknowledge or address the Final EIR's response to comments. Speaker Two (2), discussed the project, addressed the financial benefits for the City and the job opportunities. He did not object to the project, and asked that Speaker 1's comments be addressed.

Both the Draft EIR and the Final EIR were prepared by Applied Planning, and reviewed by City staff as well as by an outside peer environmental consultant (First Carbon Solutions) retained by the City. All professional technical review performed and overseen by City staff of the environmental record indicates that the project and environmental review were completed in accordance with the California Environmental Quality Act (CEQA) and other applicable planning regulations.

The Draft EIR was circulated for a 45-day public review period from which ten (10) comment letters were received. In accordance with the CEQA requirements, the letters received were addressed (responded to) in the Final EIR which was released December 1, 2016 and sent to all commenters.

The Final EIR included some environmental areas of consideration that included potential impacts that even with mitigation could not be reduced to a less than significant level. In cases where impacts cannot be reduced to less than significant levels, CEQA allows the decision making body to consider adoption of a Findings and Statement of Overriding Considerations (SOC). CEQA requires the decision making agency, in adopting a SOC, to balance the economic, legal, social, technological or other benefits of a proposed project against its unavoidable environmental impacts

when determining whether to approve the proposed project. For this project that included project benefits such as the creation of jobs or other desired beneficial economic outcomes/project features versus the project impacts that could not be feasibly mitigated to less than significant levels. If the decision making body determines that the benefits of a proposed project outweigh the unavoidable adverse environmental effects, it may adopt a SOC and approve the project. The SOC prepared for this project provides specific documentation of the economic benefits this project would provide including annual taxes, job creation and roadway infrastructure.

Some benefits specifically identified include, the project with an estimated construction cost of $21.5 million, would support 50 – 60 direct construction jobs over a two year construction phase. Over the twenty year period evaluated, the Project is projected to generate $772.2 million – $3.7 billion in new direct spending through construction and operations. This influx of funds will have positive economic and fiscal impacts on the City of Moreno Valley in the form of net fiscal revenue, job creation, household earnings, and economic output. The net fiscal revenue for the City is estimated to increase by an annual average of $160,000 – $260,000 over 20 years, with a cumulative total of $3.2 – $5.2 million. This net fiscal revenue is the result of roughly $5.9 – $8.1 million in new tax revenue generated by the Project offset by $2.7 – $2.9 million in General Fund expenditures. Project operations are estimated to create and sustain 500 – 540 new jobs specific to the City.

ALTERNATIVES

1. **APPROVE Resolution 2017-08.** A Resolution of the City Council of the City of Moreno Valley, California, denying the appeal and sustaining the December 15, 2016 actions of the Planning Commission and thereby the City Council CERTIFIES the Final Environmental Impact Report (EIR) PEN16-0019 (P16-003) included as Exhibit A, ADOPTS the Mitigation Monitoring and Reporting Program included as Exhibit B, ADOPTS The Findings and Statement of Overriding Considerations included Exhibit C, and APPROVES Plot Plan PEN16-0020 (PA16-0002) with Conditions of Approval included as Exhibit D, for the Indian Street Commerce Center project, a 446,350 square foot warehouse building. Staff recommends this alternative.

2. **APPROVE Resolution 2017-XX**. A Resolution of the City Council of Moreno Valley approving the appeal and overriding the actions of the Planning Commission and thereby deny the project by reversing the entire Planning Commission actions on the Final Environmental Impact Report (EIR), Mitigation Monitoring and Reporting Program, Statement of Overriding Considerations, and Plot Plan for the Indian Street Commerce Center project, a 446,350 square foot warehouse building. Staff does not recommend this alternative. (City Council to provide findings).

NOTIFICATION

The required public notice for this Public Hearing was sent on January 26, 2017 to all property owners of record within 300' of the project site and to those individuals or agencies that commented on the Draft EIR. The public hearing notice for the project was also posted on the project site on January 26, 2017 and published in the Press Enterprise on January 26, 2017. As of the date of this report preparation, staff has received no public inquiries in response to the noticing for the project.

PREPARATION OF STAFF REPORT

Prepared By:
Julia Descoteaux
Associate Planner

Department Head Approval:
Allen Brock
Community Development Director

CITY COUNCIL GOALS

Positive Environment. Create a positive environment for the development of Moreno Valley's future.

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

Objective 1.2: Market all the opportunities for quality industrial development in Moreno Valley by promoting all high-profile industrial and business projects that set the City apart from others.

ATTACHMENTS

1. 300 Ft notice Public Hearing Notice for Appeal
2. Appeal Letter Received 12-22-16
3. FEIR Response to SoCal EJA Ltr 10-7-16 & Response guide
4. Resolution No. 2017-08
5. Exhibit A - To Resolution Final EIR Nov 2016
6. Exhibit B - To Resolution Mitigation Monitoring Plan
7. Exhibit C - To Resolution Statement Overriding Considerations
8. Exhibit D to Resolution - Conditions of Approval

9. Draft EIR - August 2016
10. PC Hearing Notice
11. PC Staff Report 12-15-16
12. PC Hearing Minutes 12-15-2016 (PEN16-0020)
13. Project Plans 8x11
14. Color Elevations
15. Appendix A - IS, NOP, NOP Responses
16. Appendix B - Traffic Impact Analysis
17. Appendix C - Air Quality Analysis
18. Appendix D - GHG GCC Analysis
19. Appendix E - Noise Impact Analysis
20. Appendix F - Phase I ESA to EIR
21. Appendix G - Hydrology Study to EIR
22. Appendix H - Biological Resources to EIR
23. Appendix I - Airport Compatability Documentation to EIR

APPROVALS

Budget Officer Approval	✓ Approved	1/19/17 11:53 AM
City Attorney Approval	✓ Approved	1/25/17 9:55 AM
City Manager Approval	✓ Approved	1/26/17 9:47 AM

Notice of PUBLIC HEARING

This may affect your property. Please read.

Notice is hereby given that a Public Hearing will be held by the City Council of the City of Moreno Valley on the following item(s):

Appeal: PAA16-0001 An appeal of the Planning Commission's December 15, 2016 actions on Plot Plan PEN16-0020 (PA16-0002), and certification of the Environmental Impact Report PEN16-0019 (P16-003) for a proposed 446,350 square foot warehouse building.

Appellant: Blum/Collins for So Cal Environmental Justice Alliance

Project Applicant: SRG ACQUISTION, LLC
Owner: VOGEL PROP INC
Representative: Patrick Russell
A.P. No(s): 316-210-019, 316-210-020, 316-210-057, and 316-210-077
Location: West side of Indian Street south of Grove View
Proposal: A public hearing on an Appeal (PAA16-0001) of the Planning Commission's December 15, 2016, actions on PEN16-0020 (PA16-0002), Plot Plan for a 446,350 square foot warehouse building on 19.64 acres on the west side of Indian Street south of Grove View Road within the Moreno Valley Industrial Area Specific Plan 208, and PEN16-0019 (P16-003) Environmental Impact Report (EIR), Mitigation Monitoring and Reporting Program, and Findings and Statement of Overriding Considerations considered with the project.

Council District: 4

ENVIRONMENTAL DETERMINATION:
The project has been evaluated against criteria set forth in the California Environmental Quality Act (CEQA) Guidelines. An Environmental Impact Report (EIR) (P16-003) (SCH2016031036), Mitigation Monitoring and Reporting Program, and Statement of Overriding Considerations have been prepared for this project. The draft EIR document was circulated to the public (including to interested parties/responsible agencies) for review from August 25, 2016 to October 10, 2016. The final document is available online at www.moval.org.

Any person interested in this project can contact the Community Development Department, Planning Division, at 14177 Frederick St., Moreno Valley, California, during normal business hours (7:30 a.m. to 5:30 p.m., Monday through Thursday and 7:30 a.m. to 4:30 p.m. on Fridays), or may telephone (951) 413-3206 for further information. The associated documents are available for public inspection at the above address.

In the case of Public Hearing items, any person may appear and be heard in support or in opposition to the project and recommended environmental determination at the time of the Hearing.
The City Council, at the Hearing or during deliberations, could approve changes or alternatives to the proposed project.
If you challenge any actions in court, you may be limited to raising only those items you or someone else raised at the Public Hearing described in this notice, or in written correspondence delivered to the City Council at, or prior to, the Public Hearing.



LOCATION N↑

CITY COUNCIL HEARING

City Hall Council Chamber
14177 Frederick Street
Moreno Valley, Calif. 92553

DATE AND TIME: February 7, 2017 at 6:00 PM
CONTACT PLANNER: Julia Descoteaux
PHONE: (951) 413-3209

Upon request and in compliance with the Americans with Disabilities Act of 1990, any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to Guy Pegan, ADA Coordinator, at 951.413.3120 at least 48 hours before the meeting. The 48-hour notification will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

Attachment: 300 Ft notice Public Hearing Notice for Appeal [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

E.2.b

Attachment: Appeal Letter Received 12-22-16 (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001)

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CITY OF MORENO VALLEY
Planning Division

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BLUM|COLLINS LLP

Aon Center
707 Wilshire Boulevard
Suite 4880
Los Angeles, California
90017

213.572.0400 phone
213.572.0401 fax

December 22, 2016

City Council
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Appeal to: The Moreno Valley City Council

Appeal from: The decision of the Moreno Valley City Planning Commission, December 15, 2016

Regarding Case No.: SCH No. 2016031036

Project Address: Indian Street/Grove View Road

Final Date to Appeal: December 30, 2016

Appellant: SoCal Environmental Justice Alliance, filing for itself

Represented by: Steven A. Blum and Gary Ho of Blum Collins, LLP

PURPOSE OF APPEAL

This appeal seeks to reverse the entire decision of the Moreno Valley City Planning Commission ("Commission") issued on December 15, 2016, approving the Environmental Impact Report (EIR) for the Indian Street Commerce Center Project ("Project").

REASONS FOR APPEAL AND DENIAL OF PROJECT

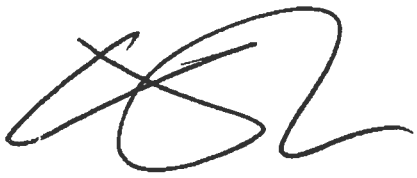
Appellant SoCal Environmental Justice Alliance ("Appellant") has presented multiple arguments on how the Commission's environmental review process has failed to ensure environmental, social, and economic justice for the City of Moreno Valley's residents, and why the City and Commission should therefore redraft and recirculate the EIR and reverse the entire decision issued by the Commission on December 15, 2016. These arguments, which include discussions

of the flaws in the EIR's analysis of environmental impact and the Project's impact on air quality, transportation and traffic, greenhouse gas emissions, and project alternatives, were made in the letter dated October 7, 2016 and addressed to Julia Descoteaux, Associate Planner, City Planning Commission & City Council, City of Moreno Valley, 14177 Frederick Street, Moreno Valley, California 92552. A copy of this letter is attached hereto. The Commission and its decision did not adequately address the arguments made by SoCal Environmental Justice Alliance.

GRIEVANCES

The decision of the Commission issued on December 15, 2016 would result in significant adverse air quality, transportation and traffic, and greenhouse gas emissions impacts without the adoption of adequate mitigation measures. The environmental analysis does not adequately consider less damaging alternatives that also provide a higher level of public benefit.

Sincerely,



Gary Ho
BLUM | COLLINS LLP

Attachment: Appeal Letter Received 12-22-16 (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001)

Environmental Justice Alliance

October 7, 2016

VIA US MAIL AND EMAIL

City Planning Commission & City Council
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Julia Descoteaux,Associate Planner
juliad@moval.org

SUBJECT: COMMENTS ON INDIAN STREET COMMERCE CENTER

To whom it may concern:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the proposed Indian Street Commerce Center. Please accept and consider these comments on behalf of SoCal Environmental Justice Alliance.

Project Summary

As we understand it, the Indian Street Commerce Center project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. 347,080 square feet of the Project building area would be allocated for distribution warehouse uses; 89,270 square feet would be assigned to manufacturing uses; and 10,000 square feet would be assigned to office uses. The Project does not include a refrigerated/cold storage component. Approximately 35 loading dock doors would be provided along the warehouse's southerly face.

Transportation/Traffic

Section 4.1.2 - Study Area. The DEIR fails to recognize the Freeway Mainline study area in this section. The study area is not introduced until the cumulative impacts are analyzed. The DEIR is misleading by presenting that the source of all traffic will presumably come from the I-215/ Harley Knox Boulevard segment. Likely traffic to and from the project site will come from the 91/I-215 interchange and the 60/I-215 interchange. The 91/I-215 interchange is not considered

at all throughout the DEIR or the TIA. The potential impacts to the 91/I-215 interchange are not analyzed when cumulative impacts could potentially occur at this area. This does not comply with CEQA's requirements for meaningful disclosure.

Section 4.1.3 - Level of Service and TIA Methodologies. The TIA and DEIR indicate that regional access will be provided from the I-215 and 60 freeways. The TIA and DEIR fail to consider regional access from the 91 freeway. The 91 freeway is a major transportation corridor providing access to the project site from the ports of Long Beach and Los Angeles. The 91 freeway/I-215 interchange provides access to the project site. The DEIR must be revised to fully analyze the potential impacts the proposed project will have on the 91 freeway, including but not limited to the 91 freeway/I-215 interchange.

Section 4.1.6.2 - Existing Roadway System. Again, the DEIR and TIA fail to include the 91 freeway in the traffic/transportation analysis. The DEIR and TIA do not fully disclose all regional sources of traffic to the project site, which is likely to have further impacts on the already cumulatively considerable impacts related to traffic. This does not comply with CEQA's requirements for meaningful disclosure.

Section 4.1.7.2 - Project Trip Distribution. Figures 4.1-6 and 4.1-7 of the DEIR indicate that 30% of passenger car traffic will reach the project site from the I-215/Harley Knox intersection and 20% of passenger car traffic will reach the project site from southbound Indian Street. Indian Street can only be reached by connecting at Perris Boulevard. The Perris Boulevard/60 freeway interchange is not included in the project trip distribution analysis when it has potentially significant impacts to the project trip distribution.

Section 4.1.9.4 - Impact Statements. The DEIR finds the opening year (2020) with and without project LOS to be deficient at 6 intersections. Mitigation Measures 4.1.1 - payment of fees - is applied to all of the potentially cumulative impacts that follow for opening year roadway segments, and freeway off-ramp queueing. However, the TIA indicates that the following areas are under the jurisdiction of the city of Perris:

ID No. 1 - I-215 SB Ramps/Harley Knox Bl.

ID No. 2 - I-215 NB Ramps/Harley Knox Bl.

ID No. 3 - Western Way / Harley Knox Bl.

ID No. 4 - Patterson Ave. / Harley Knox Bl.

Payment of fees is not an acceptable mitigation measure when the impact is in a jurisdiction beyond the scope of the lead agency. An assessment of fees is appropriate when linked to a specific mitigation program. (Anderson First Coalition v. City of Anderson (2005) 130 Cal.App. 4th 1173, Save our Peninsula Comm. v. Monterey County Bd. Of Supers. (2001) 87 Cal.App.4th 99, 141.) Payment of fees is not sufficient where there is no evidence mitigation will actually result. (Gray v. County of Madera (2008) 167 Cal.App.4th 1099,1122.) The assessment of fees

Attachment: Appeal Letter Received 12-22-16 (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001)

here is not adequate as there is no evidence mitigation will actually result. Mitigation measure 4.1.1 is uncertain and improperly deferred in violation of CEQA.

Section 4.2.7.2 - Air Quality Impact Statements - Regional Impacts. The DEIR gives a sample construction schedule. The construction schedule presents the project in phases; however, phased construction is not required of the project. The DEIR does not present any analysis of impacts or potential mitigation measures from potential overlap of construction phases. There is no statement that the construction phases will not occur concurrently. Also, there is no requirement that the Project be completed over a certain number of days given. Construction may occur faster as well, which would result in significantly greater daily impacts.

The DEIR states, "should construction occur any time after the dates presented here, incremental and aggregate construction-source emissions would likely decrease since emission factors for construction equipment would progressively decrease in the future". This statement is misleading and assumes a best-case scenario, which is contrary to CEQA's meaningful disclosure requirement. There is no indication of or requirement for project construction to utilize technology that may or may not exist to reduce emissions. The DEIR continues to state, "This is due to the natural turnover of the older vehicle fleet and replacement with more fuel efficient equipment with enhanced emissions controls; and implementation of more stringent regulations which collectively act to reduce construction-source (and operational-source) emissions." Will the DEIR be recirculated and analyzed if the project goes beyond the construction dates given? Will it be analyzed against the more stringent regulations that do not exist currently? This statement is misleading and presents a scenario that is circumstantial and uncertain.

Phased construction with clearly defined descriptions of work during each phase must be required of the proposed project in order for the DEIR mitigation measures and projected impacts to be applicable or relevant. These impacts must be disclosed to the public and decision-makers in a fully revised and recirculated EIR in order to comply with CEQA.

HRA: The HRA presented is unduly optimistic in that it places sensitive receptors, apparently, at the opposite end of their property from where the exposure would take place, rather than at their property lines closest to the project site. HRAs are supposed to be conservative and the modeling should have assessed what might have happened to the receptors given their exposure at their property lines. The DEIR also is inadequate as an informational document in that it does not disclose where the receptors were placed for analysis. Where, exactly, were they placed? The same is true for your worker and schoolchild analysis. As to schoolchildren there is absolutely no basis for not modeling exposures at the adjacent El Portero park playground and fields they are likely to use. The same question is obvious: where did you place the children for purposes of your analysis?

It also does not appear that the HRA used child-specific analysis for the assessment of risks to children; such an assessment should have been done given that studies show reduced lung capacity and increased asthma in children given increased exposure to the pollutants of concern.

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EPA's *Framework for Assessing Health Risk of Environmental Exposures to Children*, which we do not believe the HRA used, 1) provides for a more complete evaluation of the potential for vulnerability at different life stages, including a focus on the underlying biological events and critical developmental periods for incorporating mode of action ("MOA") considerations; 2) evaluates the potential for toxicity after exposure during all developmental life stages; and 3) integrates adverse health effects and exposure information across life stages. The HRA also should not discount the fact that children almost certainly live in the residential community that surrounds the school.

Section 4.2.7.2 - Air Quality Impact Statements - Operational Source Emissions. The DEIR indicates that the project will have significant and unavoidable impacts with regards to NOx emissions. MM 4.2.5 does not mitigate the emissions of NOx to levels that are less than significant. The DEIR also details project design features in this section, including that sidewalks will be established along the frontage of the project site, which will encourage people to walk. This project detail is insufficient and misleading as there is no employee walk/biking to work program required to result in fewer passenger car trips to mitigate impacts.

Section 4.3.4 - Greenhouse Gas Emissions Impact Statements - Project GHG Emissions. The DEIR states that the project's emissions of GHG are significant and unavoidable after mitigation. No mitigation measures are offered other than a reference to project design features and operational programs that would act to "generally reduce Project GHG emissions from area sources, energy sources, and other on-site emissions sources which combined, account for approximately 11 percent of the Project total GHG emissions." How did you quantify the 11 percent reduction? How do you quantify the installation of sidewalks to reduce VMT? What is the correlation between installing sidewalks and reducing VMT when there is no employee bike/ walking program discussed or developed? No further mitigation measures are offered. This is inadequate and the DEIR must offer some mitigation measures beyond potential project design features.

Further, the DEIR states that the project conflicts with the Scoping Plan as well as Moreno Valley's Energy Efficiency and Climate Action Strategy. There are no mitigation measures discussed here either. The details of how the GHG emissions conflict with both documents is not discussed. This does not meet CEQA's meaningful disclosure requirements.

Section 5.2.1 - Cumulative Impacts Related to Transportation/Traffic. The DEIR states that "traffic generated by other known or probable related projects was then added to the TIA ambient traffic growth estimates. These related projects are in part already accounted for in the assumed annual 2 percent increase in ambient traffic growth noted above; and in certain instances, these related projects would likely not be implemented and functional within the 2020 Opening Year time frame assumed for the Project" The DEIR does not provide a list or map of these projects and significantly downplays the impact the cumulative projects have regarding transportation and traffic. There is a map of the cumulative projects buried in the Transportation Impact Analysis as Table 4-4, but the numbers of the projects listed overlap and are difficult to read,

Attachment: Appeal Letter Received 12-22-16 (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001)

which makes that map largely useless. Further, burying this information in an Appendix does not comport with the informational and public disclosure purposes of CEQA.

Section 5.2.2.6 – Cumulative Impact Analysis. Here you refer to a list of cumulative projects related to TAC emissions impacts. You do not provide a map of those cumulative projects. This does not comply with CEQA's requirements for meaningful disclosure.

SoCal Environmental Justice Alliance believes the DEIR for the proposed project fails to comply with CEQA and must be substantially supplemented, amended, and recirculated before the reviewing bodies make a recommendation or decision on the proposed project. The Alliance encourages the city to require the DEIR to address the Environmental Justice Element as outlined in the California General Plan Guidelines and give the Element the same weight as the mandatory elements of the General Plan.

For these reasons, SCEJA respectfully requests the need for this Project's DEIR to be substantially supplemented, amended, and recirculated and the City's denial to certify this DEIR. SoCal Environmental Justice Alliance requests to be notified via email at socaleja@gmail.com regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project.

Sincerely,



Joe Bourgeois
Chairman of the Board
SoCal Environmental Justice Alliance

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SoCal Environmental Justice Alliance
No Address Listed

Letter Dated October 7, 2016

Comment SEJA-1

As we understand it, the Indian Street Commerce Center project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. 347,080 square feet of the Project building area would be allocated for distribution warehouse uses; 89,270 square feet would be assigned to manufacturing uses; and 10,000 square feet would be assigned to office uses. The Project does not include a refrigerated/cold storage component. Approximately 35 loading dock doors would be provided along the warehouse's southerly face.

Response SEJA-1

The summary of Project uses and total acreage to be developed, as stated by the commentor, is materially correct. The detailed Project Description is presented at Draft EIR Section 3.0.

Comment SEJA-2

Section 4.1.2 - Study Area. The DEIR fails to recognize the Freeway Mainline study area in this section. The study area is not introduced until the cumulative impacts are analyzed. The DEIR is misleading by presenting that the source of all traffic will presumably come from the 1-215/Harley Knox Boulevard segment. Likely traffic to and from the project site will come from the 91/1-215 interchange and the 60/1-215 interchange. The 91/1-215 interchange is not considered at all throughout the DEIR or the TIA. The potential impacts to the 91/1-215 interchange are not analyzed when cumulative impacts could potentially occur at this area. This does not comply with CEQA's requirements for meaningful disclosure.

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Response SEJA-2

The commentor notes that specific listing of freeway segments is not identified as part of the Study Area. As a matter of clarification, freeway segments evaluated in the Project TIA Supplemental Analysis is added to the DEIR text, as presented in Section 2.0, *Revisions and Errata Corrections*.

Since the Project would not contribute 50 or more peak hour trips to the SHS under Existing + Project conditions, a detailed discussion of Project-specific impacts to the SHS is not required. The commentor correctly states that the findings of the Project Mainline Freeway Segment Analysis (presented as Draft EIR Appendix B) is summarized within the discussions of cumulative impacts, versus within the discussion of the Project-specific Study Area.

Under Opening Year Cumulative (2020) conditions, traffic growth along the SR-91 and I-215 Freeway is anticipated to exceed the capacity of existing lanes, and would thus result in a deficient level of service (LOS) for select freeway mainline segments. Notwithstanding, the addition of Project Traffic is not anticipated to result in any new deficiencies. The Project is anticipated to contribute no more than 25 peak hour one-way trips to the deficient freeway mainline segments. As determined by the Draft EIR, there are no feasible mitigation measures that would be in place to reduce the deficient freeway mainline segments under Opening Year Cumulative traffic conditions, and therefore the Draft EIR correctly states that the Project's contribution to these deficient segments is a cumulatively significant and unavoidable impact.

Since the only freeway mainline impacts are cumulative, the Draft EIR correctly presents this analysis within the discussion of cumulative impacts.

The commentor speculates on Project traffic distribution within the Study Area freeway facilities and states that "[l]ikely traffic to and from the project site will come from the 91/1-215 interchange and the 60/1-215 interchange. The 91/1-215 interchange is not considered at all throughout the DEIR or the TIA. The potential impacts to the 91/1-215 interchange are not analyzed when cumulative impacts could potentially occur at this

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area. This does not comply with CEQA's requirements for meaningful disclosure." Commentor statements in these regards are incorrect and unsupported.

Specifically, the scope and parameters of the TIA were developed in consultation with the Lead Agency. Approximately 90 percent of the inbound truck trips are expected to come via SR-60 to I-215 southbound and approximately 5 percent of the trick trips are expected to come to the site directly from SR-60 (see TIA Section 4.2, *Project Trip Distribution*). The TIA also acknowledges that outbound trucks are anticipated to be distributed throughout the region, including but not limited to the 91 freeway. However, the amount of Project traffic estimated at the 60/I-215 and 91/I-215 interchanges is expected to be less than 50 peak hour trips, and thus not subject to analysis per City protocols.[5] Please refer also to Response SEJA-3.

Based on the preceding, revision of the Draft EIR is not required. Results and conclusions are not affected.

Comment SEJA-3

Section 4.1. 3 -Level of Service and TIA Methodologies. The TIA and DEIR indicate that regional access will be provided from the I-215 and 60 freeways. The TIA and DEIR fail to consider regional access from the 91 freeway. The 91 freeway is a major transportation corridor providing access to the project site from the ports of Long Beach and Los Angeles. The 91 freeway/I-215 interchange provides access to the project site. The DEIR must be revised to fully analyze the potential impacts the proposed project will have on the 91 freeway, including but not limited to the 91 freeway/I-215 interchange.

Response SEJA-3

The scope and parameters of the TIA were developed in consultation with the Lead Agency. Approximately 90 percent of the inbound truck trips are expected to come via

5 The "50 or more peak hour trips" intersection analytic protocol stipulated in the City Traffic Study Guidelines is consistent with standard industry practice. It is noted further that the 50 peak hour trip threshold is employed by other agencies throughout southern California including Caltrans, County of Riverside, County of San Bernardino, and the County of Orange.

E.2.c

Attachment: FEIR Response to SoCal EJA Ltr 10-7-16 & Response guide (2416 : A PUBLIC HEARING FOR

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SR-60 to I-215 southbound and approximately 5 percent of the trick trips are expected to come to the site directly from SR-60 (see TIA Section 4.2, *Project Trip Distribution*). The TIA also acknowledges that outbound trucks are anticipated to be distributed throughout the region, including but not limited to the 91 freeway. However, the amount of traffic estimated to utilize the 91 freeway and interchanges along the 91 freeway is anticipated to be less than 50 peak hour trips. The TIA acknowledges that outbound trucks are anticipated to be distributed throughout the region, including but not limited to the 91 freeway. However, the amount of Project traffic estimated at the 91/I-215 interchange would less than 50 peak hour trips, and thus not subject to analysis per City protocols.[6] Please refer also to Response SEJA-2.

The Draft EIR correctly states:

> "Caltrans has established level of service (LOS) "D" as the minimum acceptable mainline freeway segment operational condition within the Study Area. Employing this threshold, the addition of Project traffic would result in a less-than-significant traffic impact on the analysis segments for Existing Plus Project traffic conditions. Opening Year Cumulative (2020) traffic growth along the SR-91 and I-215 Freeway is anticipated to exceed the capacity of existing lanes, and would thus result in deficient LOS conditions for seven Study Area freeway mainline segments under Opening Year Cumulative (2020) traffic conditions (please refer to Table 4.1-11, below). The addition of Project traffic would not, however, result in any new freeway segment deficiencies. The Project is anticipated to contribute no more than 25 peak hour one-way trips to the deficient freeway mainline segments."

6 The "50 or more peak hour trips" intersection analytic protocol stipulated in the City Traffic Study Guidelines is consistent with standard industry practice. It is noted further that the 50 peak hour trip threshold is employed by other agencies throughout southern California including Caltrans, County of Riverside, County of San Bernardino, and the County of Orange.

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As such (and as mentioned previously), further analysis along this route including freeway interchanges is not necessary pursuant to Lead Agency and Caltrans guidance. Revision of the Draft EIR is not required; results and conclusions are not affected.

Comment SEJA-4

Section 4.1.6.2 - Existing Roadway System. Again, the DEIR and TIA fail to include the 91 freeway in the traffic/transportation analysis. The DEIR and TIA do not fully disclose all regional sources of traffic to the project site, which is likely to have further impacts on the already cumulatively considerable impacts related to traffic. This does not comply with CEQA's requirements for meaningful disclosure.

Response SEJA-4

The commentor again incorrectly asserts necessary analysis of the 91 freeway. Please refer to Response SEJA-3, presented above.

Comment SEJA-5

Section 4.1.7.2 - Project Trip Distribution. Figures 4.1-6 and 4.1-7 of the DEIR indicate that 30% of passenger car traffic will reach the project site from the I-215/Harley Knox intersection and 20% of passenger car traffic will reach the project site from southbound Indian Street. Indian Street can only be reached by connecting at Perris Boulevard. The Perris Boulevard/60 freeway interchange is not included in the project trip distribution analysis when it has potentially significant impacts to the project trip distribution.

Response SEJA-5

The commentor incorrectly asserts that potential impacts of Project traffic at Perris Boulevard/60 freeway interchange are required in the trip distribution analysis. As previously mentioned, and presented at Draft EIR Section 4.1.2.1, *Study Area Intersections*, the City of Moreno Valley *Traffic Impact Analysis Preparation Guide* (City TIA Preparation Guide) requires the analysis of all intersections at which a proposed project is anticipated to contribute 50 or more peak hour trips. The "50 or more peak hour trips" intersection analytic protocol stipulated in the City TIA Preparation Guide

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is consistent with standard industry practice. The 50 peak hour trip analytic protocol is employed by other agencies throughout southern California including Caltrans, County of Riverside, County of San Bernardino, and the County of Orange.

The Project TIA acknowledges (at Section 4.2, *Trip Distribution)* that the Project is anticipated to send both passenger car and truck traffic east on Nandina Avenue and east on Grove View Road (which then connect to Indian Street, Perris Boulevard, and eventually the Perris Boulevard/60 freeway interchange, as referenced by the commentor). In fact, a total of four total trucks are anticipated to head west on Nandina and/or Grove View Road during the peak hour and only 28 passenger cars are distributed in that direction during the peak hour period. Therefore, these intersections were not studied further as the Project is anticipated to contribute less than 50 peak hour trips. As such, revision of the EIR is not required; results and conclusions of the EIR are not affected.

Comment SEJA-6

Section 4.1.9.4 - Impact Statements. The DEIR finds the opening year (2020) with and without project LOS to be deficient at 6 intersections. Mitigation Measures 4.1.1 -payment of fees – is applied to all of the potentially cumulative impacts that follow for opening year roadway segments, and freeway off-ramp queueing. However, the TIA indicates that the following areas are under the jurisdiction of the city of Perris:

ID No. 1 - I-215 SB Ramps/Harley Knox Bl.
ID No. 2 - I-215 NB Ramps/Harley Knox Bl.
ID No. 3 - Western Way/Harley Knox Bl.
ID No. 4 - Patterson Ave./Harley Knox Bl.

Payment of fees is not an acceptable mitigation measure when the impact is in a jurisdiction beyond the scope of the lead agency. An assessment of fees is appropriate when linked to a specific mitigation program. (Anderson First Coalition v. City of Anderson (2005) 130 Cal.App.4th 1173, Save our Peninsula Comm. v. Monterey County Bd. Of Supers. (2001) 87 Cal.App.4th

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99, 141.) Payment of fees is not sufficient where there is no evidence mitigation will actually result. (Gray v. County of Madera (2008) 167 Cal.App.4th 1099, 1122.) The assessment of fees here is not adequate as there is no evidence mitigation will actually result. Mitigation measure 4.1.1 is uncertain and improperly deferred in violation of CEQA.

Response SEJA-6

The commentor incorrectly reads and interprets the EIR significance conclusions regarding payment of fees and impact significance. The identified significant impacts include the extra-jurisdictional facilities noted by the commentor. Because the Lead Agency does not have plenary control over extra-jurisdictional traffic facilities, a fee payment mechanism [Draft EIR Mitigation Measure 4.1.1] noted by the commentor is incorporated to ensure Project mitigation responsibilities for contributions to impacts at extra-jurisdictional traffic facilities are fulfilled. However, contrary to the commentor's inferences, Project fee payments are not considered to reduce impacts to levels that would be less-than-significant.

In this regard, the Draft EIR clearly states:

> *Project mitigation responsibilities for incremental contributions to cumulative traffic impacts affecting Study Area facilities are fulfilled by payment of requisite traffic impact fees that would be assigned to the construction of necessary improvements. Notwithstanding, payment of traffic impact fees does not ensure timely completion of those traffic improvements necessary to mitigate potentially significant cumulative traffic impacts affecting the Study Area. In these instances, Project traffic impacts would not be individually significant, but would however be considered cumulatively significant. Pending completion of required improvements, the Project's contributions to cumulative traffic impact deficiencies identified within this Section are therefore cumulatively considerable and the identified cumulative impacts are significant and unavoidable" (DEIR p. 4.1-1, 4.1-2, et al.)*

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Thus, while the physical improvements identified in the EIR may be capable of mitigating potentially significant impacts, these improvements cannot be assured. Moreover, there are not any plans to improve the affected facilities within the Project's estimated opening date, and the City of Moreno Valley does not have an existing agreement with extra-jurisdictional agencies regarding the improvement or timing of improvements at locations along, or beyond the City of Moreno Valley corporate boundaries.

The commentor's assertion that Mitigation Measure 4.1.1 is "uncertain" is incorrect. The measure ensures that fees required of the Project will be paid. However, the Draft EIR correctly concludes that, even with the payment of fees, these impacts are considered cumulatively significant and unavoidable. Results and conclusions of the EIR are not affected.

Comment SEJA-7

Section 4.2.7.2- Air Quality Impact Statements- Regional Impacts. The DEIR gives a sample construction schedule. The construction schedule presents the project in phases; however, phased construction is not required of the project. The DEIR does not present any analysis of impacts or potential mitigation measures from potential overlap of construction phases. There is no statement that the construction phases will not occur concurrently. Also, there is no requirement that the Project be completed over a certain number of days given. Construction may occur faster as well, which would result in significantly greater daily impacts.

The DEIR states, "should construction occur any time after the dates presented here, incremental and aggregate construction-source emissions would likely decrease since emission factors for construction equipment would progressively decrease in the future". This statement is misleading and assumes a best-case scenario, which is contrary to CEQA's meaningful disclosure requirement. There is no indication of or requirement for project construction to utilize technology that may or may not exist to reduce emissions. The DEIR continues to state, "This is due to the natural turnover of the older vehicle fleet and replacement with more fuel efficient equipment with enhanced emissions controls; and implementation of more stringent regulations which collectively act to reduce construction-source (and operational-source)

E.2.c

Attachment: FEIR Response to SoCal EJA Ltr 10-7-16 & Response guide (2416 : A PUBLIC HEARING FOR

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emissions." Will the DEIR be recirculated and analyzed if the project goes beyond the construction dates given? Will it be analyzed against the more stringent regulations that do not exist currently? This statement is misleading and presents a scenario that is circumstantial and uncertain.

Phased construction with clearly defined descriptions of work during each phase must be required of the proposed project in order for the DEIR mitigation measures and projected impacts to be applicable or relevant. These impacts must be disclosed to the public and decision makers in a fully revised and recirculated EIR in order to comply with CEQA.

Response SEJA-7

While the commentor's assertions regarding phasing would be applicable if the Project were indeed a phased development (such as the construction of several different components and uses, to be constructed over an extended period of time, as would be the case in a Specific Plan for example). The Project proposal is a single building within a relatively limited site. The phases referenced within the Draft EIR are simply the logical progression of the construction process, such as site preparation, grading, building construction, architectural coatings, and paving. Each step in this progression requires completion of the previous construction phase.

The commentor states: "The DEIR does not present any analysis of impacts or potential mitigation measures from potential overlap of construction phases. There is no statement that the construction phases will not occur concurrently. Also, there is no requirement that the Project be completed over a certain number of days given. Construction may occur faster as well, which would result in significantly greater daily impacts."

The construction schedule, equipment use, and progression of work within the site reflects typical construction schedules for similar projects and is consistent with accepted SCAQMD CalEEMod emissions modeling protocols. SCAQMD is the Responsible Agency for air quality considerations for the City and the Project; has reviewed the Project air quality construction modeling, and has offered no criticism or

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comment on the modeling. The commentor speculates that the construction "may occur faster," resulting in greater daily impacts. There is no evidence or indication that Project construction would occur other than is anticipated in the EIR. Absent further evidence to the contrary, the Lead Agency considers the EIR analysis of Project construction-source air quality impacts to be accurate and adequate. Results and conclusions of the EIR are not affected.

The commentor goes on to state that the construction analysis "assumes a best-case scenario." The commentor misunderstands the referenced Draft EIR text. Draft EIR page 4.2-32 states:

> "Air pollutant emissions based on the construction schedule presented here represents a "worst-case" analysis scenario. That is, should construction occur any time after the dates presented here, incremental and aggregate construction-source emissions would likely decrease since emission factors for construction equipment would progressively decrease in the future. This is due to the natural turnover of the older vehicle fleet and replacement with more fuel efficient equipment with enhanced emissions controls; and implementation of more stringent regulations which collectively act to reduce construction-source (and operational-source) emissions."

The excerpted text is simply stating that the Project has been evaluated based on current construction equipment emissions requirements. Moving forward, such requirements would only become more stringent. If the Project were to experience significant delays prior to construction, the Project would be required (by State law) to comply with emissions requirements in place at the time of construction. Additionally, a delayed Project could mean the use of newer, more efficient construction equipment. Regardless, future emissions under all scenarios would likely be less significant, and no more significant, than the peak emissions impacts analyzed within the Draft EIR. The EIR in no instances takes credit for potential emissions reductions that may be realized at a future date because of more stringent regulations, use of more efficient equipment

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etc. Contrary to the commentor's assertion, the construction-source modeling conducted as part of the Draft EIR presents a worst case scenario. Results and conclusions of the EIR are not affected.

Comment SEJA-8

HRA: The HRA presented is unduly optimistic in that it places sensitive receptors, apparently, at the opposite end of their property from where the exposure would take place, rather than at their property lines closest to the project site. HRAs are supposed to be conservative and the modeling should have assessed what might have happened to the receptors given their exposure at their property lines. The DEIR also is inadequate as an informational document in that it does not disclose where the receptors were placed for analysis. Where, exactly, were they placed? The same is true for your worker and schoolchild analysis. As to schoolchildren there is absolutely no basis for not modeling exposures at the adjacent El Portero park playground and fields they are likely to use. The same question is obvious: where did you place the children for purposes of your analysis?

It also does not appear that the HRA used child-specific analysis for the assessment of risks to children; such an assessment should have been done given that studies show reduced lung capacity and increased asthma in children given increased exposure to the pollutants of concern. EPA's Framework for Assessing Health Risk of Environmental Exposures to Children, which we do not believe the HRA used, 1) provides for a more complete evaluation of the potential for vulnerability at different life stages, including a focus on the underlying biological events and critical developmental periods for incorporating mode of action ("MOA") considerations; 2) evaluates the potential for toxicity after exposure during all developmental life stages; and 3) integrates adverse health effects and exposure information across life stages. The HRA also should not discount the fact that children almost certainly live in the residential community that surrounds the school.

Response SEJA-8

The commentor incorrectly interprets and misapplies HRA modeling protocols. Resulting conclusions regarding the EIR HRA are accordingly incorrect. From a general standpoint, the HRA was conducted precisely to protocols promulgated by the

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SCAQMD. The modeling identifies risk factors from emissions within a hypothetical 100-meter grid surrounding the site. The location of the closest residential, school, and business (worker exposure) are then overlaid within the grid. The modeling outputs therefore identify the risk factor within the grid boundaries and those values are used in the analysis. The precise techniques are detailed within the HRA (page 20), which is presented as Draft EIR Appendix C.

At the maximally exposed individual receptor, the maximum incremental cancer risk attributable to Project DPM sources was estimated to be 0.21, which is considerably less than the threshold of 10 in one million. At the same location, non-cancer risks were estimated to be 0.0001, also considerable lower than the applicable threshold of 1. Based on the modeling, these exact results occur anywhere within the 100 meter grid box. The same applies to the worker and school child receptors. These risks factors are all well below the identified thresholds and therefore arguing about precision within the grid box would not alter the modeling results. None of the exposures approach the identified thresholds.

The locations of all individual receptors, workers, and school children are illustrated at Draft EIR Figures 4.2-2 through 4.2-4. These graphics illustrate the locations of all receptors measured, as well as identifying the maximally exposed receptor under each category. Additionally, HRA Section 2.6 specifically identifies the locations of the maximally exposed receptors:

- Individual Receptor: existing residential home situated approximately 3,171 feet southwest of the Project site on Nevada Avenue;
- Worker Receptor: iHerb Inc. Warehouse Distribution Center located at 17825 Indian Street; and
- School Child Receptor: El Potrero Preschool located at 16820 Via Pamplona.

In regard to the use of appropriate school child assumptions, Table 2-3, *Exposure Assumptions for Individual Cancer Risk*, of the HRA (presented in its entirety at Draft EIR Appendix C), notes:

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> "To represent the unique characteristics of the school-based population, the assessment employed the U.S. Environmental Protection Agency's guidance to develop viable dose estimates based on reasonable maximum exposures (RME). RME's are defined as the "highest exposure that is reasonably expected to occur" for a given receptor population. As a result, lifetime risk values for the student population were adjusted to account for an exposure duration of 180 days per year for nine (9) years. The 9 year exposure duration is also consistent with OEHHA Recommendations and consistent with the exposure duration utilized in school-based risk assessments for various schools within the Los Angeles County Unified School District (LAUSD) that have been accepted by the SCAQMD."

While the commentor is surely correct in the assertion that children "almost certainly live in the residential community that surrounds the school," the HRA correctly used residential receptors located nearer the Project site, as illustrated at Draft EIR Figure 4.2-2.

Based on the preceding discussion, the HRA accurately describes, models, and analyzes Project cancer and non-cancer health risks. No revisions are necessary. Results and conclusions of the EIR are not affected.

Comment SEJA-9

Section 4.2.7.2 - Air Quality Impact Statements - Operational Source Emissions. The DEIR indicates that the project will have significant and unavoidable impacts with regards to NOx emissions. MM 4.2.5 does not mitigate the emissions of NOx to levels that are less than significant. The DEIR also details project design features in this section, including that sidewalks will be established along the frontage of the project site, which will encourage people to walk. This project detail is insufficient and misleading as there is no employee walk/biking to work program required to result in fewer passenger car trips to mitigate impacts.

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Response SEJA-9

The commentor states ". . .Project detail is insufficient and misleading as there is no employee walk/biking to work program required to result in fewer passenger car trips to mitigate NOx impacts." The commentor incorrectly interprets the EIR.

The commentor correctly states that Mitigation Measure 4.2.5 "does not mitigate the emissions of NOx to levels that are less than significant." To this end, the Draft EIR concludes that regional operational NOx emissions would be a significant and unavoidable impact of the Project. The Draft EIR further notes that approximately 98 percent of all operational-source emissions (by weight) would be generated by Project mobile sources (traffic). Neither the Project Applicant nor the Lead Agency can substantively or materially affect reductions in Project mobile-source emissions.

Mobile-source vehicle tail pipe emissions cannot be materially or feasibly controlled or mitigated by the Lead Agency or the Project Applicant. Rather, these emissions sources are regulated by CARB and USEPA. As the result of CARB and USEPA actions, Basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve. Future CARB and USEPA actions could be expected to have a positive effect on Project-related vehicular-source emissions, resulting in incremental reductions in vehicular-source emissions when compared to either the Project AQIA emissions estimates.

The Draft EIR is an informational document intended to apprise decision-makers and the general public of Project characteristics, as well as potentially significant environmental impacts associated with the Project. To this end, the Draft EIR presents Project features that may help to reduce the identified significant emission exceedances. However, no emission reductions or credits based on these features are taken, nor are they presented as mitigation. How the commentor misconstrues this level of detail as "misleading" is not understood. Revision of the EIR is not required; results and conclusions of the EIR are not affected.

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Comment SEJA-10

Section 4.3.4 - Greenhouse Gas Emissions Impact Statements -Project GHG Emissions. The DEIR states that the project's emissions of GHG are significant and unavoidable after mitigation. No mitigation measures are offered other than a reference to project design features and operational programs that would act to "generally reduce Project GHG emissions from area sources, energy sources, and other on-site emissions sources which combined, account for approximately 11 percent of the Project total GHG emissions." How did you quantify the 11 percent reduction? How do you quantify the installation of sidewalks to reduce VMT? What is the correlation between installing sidewalks and reducing VMT when there is no employee bike/walking program discussed or developed? No further mitigation measures are offered. This is inadequate and the DEIR must offer some mitigation measures beyond potential project design features.

Further, the DEIR states that the project conflicts with the Scoping Plan as well as Moreno Valley's Energy Efficiency and Climate Action Strategy. There are no mitigation measures discussed here either. The details of how the GHG emissions conflict with both documents is not discussed. This does not meet CEQA's meaningful disclosure requirements.

Response SEJA-10

The commentor misunderstands the GHG analysis in general, and the referenced "11 percent" text specifically. The cited text is not referencing an 11 percent reduction in GHG emissions; rather it is stating that area source, energy source, and other on-site emissions sources account of 11 percent of the total Project GHG emissions. As stated at page 53 of the GHG Analysis (presented as Appendix D to the Draft EIR):

> "The Project will result in approximately 1,338.22 MTCO2e per year (approximately 11% of total Project GHG emissions) from construction, area, energy, waste, water usage, and on-site emissions. In addition, the Project has the potential to result in an additional 10,816.76 MTCO2e per year (approximately 89% of total Project GHG emissions) from mobile sources..."

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Since neither the Project Applicant nor the Lead Agency can substantively or materially affect reductions in Project mobile-source GHG emissions (mobile source emissions sources are regulated by CARB and USEPA), no feasible mitigation to reduce these emissions exists, and the Draft EIR correctly concludes that this is a significant and unavoidable impact of the Project. The commentor offers no mitigation that would reduce GHG emissions.

In regards to the Project features listed within the discussion, the Draft EIR simply lists them for informational purposes to apprise decision-makers and the general public of Project characteristics that may help to reduce the identified significant emission exceedances. Emission reductions or credits based on these features if any are consistent with CalEEMod protocols.

The commentor incorrectly states that the Draft EIR does not present a discussion of how the Project would conflict with the Scoping Plan. In point of fact, page 4.3-36 of the Drat EIR contains the following text:

> **"GHG Emissions are Potentially Significant in Context of CARB AB32 Scoping Plan Emissions Reductions Targets**
> To further evaluate the potential significance of Project GHG emissions, GHG emissions that would be generated pursuant to development of the Project are compared with GHG emissions targets established under the CARB AB32 Scoping Plan (Scoping Plan). The Scoping Plan provides for a 28.5% reduction in statewide and local GHG emissions by the year 2020, when compared to projected GHG emissions that would result from a continuing year 2005 "Business As Usual" (BAU) Scenario.
>
> As indicated at Table 4.3-5, Project GHG emissions would be reduced by approximately 23.08% when compared to the 2005 BAU scenario; and would not achieve the 28.5% GHG emissions reduction targets established under the Scoping Plan. The GHG emissions reductions targets established under the Scoping Plan are intended to reduce GHG emissions

> so as to minimize or preclude significant environmental impacts. Project inconsistency with the Scoping Plan GHG emissions reduction targets would therefore result in levels of greenhouse gas emissions that may either directly or indirectly have a significant impact on the environment. This is a potentially significant cumulative impact."

Regarding consistency with the City of Moreno Valley Climate Action Strategy (CAS), the City of Moreno Valley CAS GHG emissions reduction target is predicated on AB 32 Scoping Plan GHG emissions reductions target. The fact that the Project would not achieve the AB 32 GHG Scoping Plan emissions reductions target leads to the conclusion that the Project would likewise not achieve the CAS GHG emissions reductions target. As matter of clarification, the text at EIR p. 4.3-38 is amended accordingly.

The Project is otherwise consistent with applicable CAS policies as substantiated within the Project GHG Analysis (EIR Appendix D, Section 2.10) as summarized below.

- Policy R2-T1: Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.

Project consistency: Not applicable.

- Policy R2-T3: Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.

Project consistency: Consistent. Trip reductions are part of the Project's design features.

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- Policy R2-E1: New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards. (Reach Code)

Project consistency: Not applicable; this measure applies to residential projects.

- Policy R2-E2: New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (photovoltaic) panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources offsite.

Project consistency: Not applicable; this measure applies to residential projects.

- Policy R2-E5: New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10% beyond the 2008 Title 24 standards (which were in effect at the time the CAP was adopted). (Reach Code)

Project consistency: Consistent; Current 2013 Title 24 requirements would achieve greater reduction than envisioned by the City's Climate Action Strategy. Further, the Project would be required to comply with any adopted municipal code requirements set forth by the City of Moreno Valley. As such, the Project would be consistent with R2-E5.

- Policy R3-E1: Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy efficient projects.

Project consistency: Not applicable on a project-level.

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- Policy R3-L2: Heat Island Plan. Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.

Project consistency: Consistent; the Project will comply with the City of Moreno Valley's landscaping requirements.

- Policy R2-W1: Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal, which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.

Project consistency: Consistent. California Green Building Standards Code, Chapter 5, Division 5.3, Section 5.303.2 requires that indoor water use be reduced by 20 percent. Section 5.304.3 requires irrigation controllers and sensors. Water conservation is part of the Project's design features.

- Policy R3-W1: Water Efficiency Training and Education. Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.

Project consistency: Not applicable at a project-level.

- Policy R2-S1: City Diversion Program. For Solid Waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.

Project consistency: Consistent; the Project will comply with the City of Moreno Valley's citywide goal of solid waste reduction. Additionally, the Project will be compliant with the City of Moreno Valley's Municipal Code 8.80.030 by implementing a Waste Management Plan.

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It should also be noted that the CAS does not set forth a numerical Project-level threshold, only measures to be implemented to reduce energy and water consumption and greenhouse gas emissions. The preceding text illustrates that the Project is consistent with the applicable Policies presented within the CAS.

Contrary to the commentor's assertions otherwise, the above response and the EIR in total substantiate and demonstrate compliance with CEQA adequacy and informational requirements. Results and conclusions of the EIR are not affected.

Comment SEJA-11

Section 5.2.1 - Cumulative Impacts Related to Transportation/ Traffic. The DEIR states that "traffic generated by other known or probable related projects was then added to the TIA ambient traffic growth estimates. These related projects are in part already accounted for in the assumed annual 2 percent increase in ambient traffic growth noted above; and in certain instances, these related projects would likely not be implemented and functional within the 2020 Opening Year time frame assumed for the Project" The DEIR does not provide a list or map of these projects and significantly downplays the impact the cumulative projects have regarding transportation and traffic. There is a map of the cumulative projects buried in the Transportation Impact Analysis as Table 4-4, but the numbers of the projects listed overlap and are difficult to read, which makes that map largely useless. Further, burying this information in an Appendix does not comport with the informational and public disclosure purposes of CEQA.

Response SEJA-11

The commentor statements are incorrect and misleading. The commentor fails to include the entire paragraph of excerpted text, leaving out an important detail. The actual text reads:

> "Traffic generated by other known or probable related projects was then added to the TIA ambient traffic growth estimates. These related projects are in part already accounted for in the assumed annual 2 percent increase in ambient traffic growth noted above; and in certain instances these related projects would likely not be implemented and functional within

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> the 2020 Opening Year time frame assumed for the Project. *The resultant assumed traffic growth rate employed in the TIA (2 percent annual ambient growth + traffic generated by all related projects) would therefore tend to overstate rather than understate background cumulative traffic impacts under 2020 conditions.* [emphasis added]"

The emphasized text explains that while the related projects are in part already accounted for in the assumed annual 2 percent increase in ambient traffic growth, they were added to the ambient growth rate anyway, thus overstating cumulative traffic impacts. No deduction in assumed traffic was taken.

Contrary to the commentor's suggestion that the role of cumulative development was "downplayed," the analysis of related projects was an integral TIA component and was conducted in consultation with the Lead Agency. The cumulative project list was developed for this purpose based on information provided by City planning and engineering staff. The cumulative project list includes known and foreseeable projects that are anticipated to contribute traffic to the study area intersections. Adjacent jurisdictions of the County of Riverside, March Joint Powers Authority (JPA), City of Riverside, and the City of Perris were also contacted to obtain the most current list of cumulative projects from their respective jurisdictions. The correspondence and cumulative projects provided by each of the applicable jurisdictions are provided at TIA Appendix 4.1. In total, the TIA identified 262 related projects for inclusion within the analysis.

In response to the commentor's assertion that information was "buried" within the technical analyses, it is noted that the Draft EIR body text intentionally summarizes the information provided within the technical analyses, and appropriately focuses on identification, disclosure, and mitigation of the Project's potentially significant impacts. *Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR* (*CEQA Guidelines*, Section 15147. TECHNICAL DETAIL). Surely, a

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comprehensive listing of all 262 related projects is considered "supporting information."

Revision of the EIR is not required; results and conclusions of the EIR are not affected.

Comment SEJA-12

Section 5.2.2.6 - Cumulative Impact Analysis. Here you refer to a list of cumulative projects related to TAC emissions impacts. You do not provide a map of those cumulative projects. This does not comply with CEQA's requirements for meaningful disclosure.

Response SEJA-12

The commentor incorrectly states that the DEIR does not provide meaningful disclosure of cumulative TAC impacts. DEIR Section 5.2.2.6 provides a complete listing of all cumulative projects that were considered within the Mobile Source Diesel Health Risk Assessment (HRA) prepared for the Project. That Section goes on to summarize the findings of the HRA, which is provided in its entirety at Draft EIR Appendix C. Consistent with *CEQA Guidelines*, supporting information, such as a location map of all cumulative projects can be found at Exhibit 2-E, *Cumulative Development Within One-Quarter Mile of the Project and Primary Truck Route*, on page 30 of the Project HRA. There is no requirement that the EIR body text include all maps or other information employed in supporting technical studies. Revision of the EIR is not required; results and conclusions of the EIR are not affected.

Comment SEJA-13

SoCal Environmental Justice Alliance believes the DEIR for the proposed project fails to comply with CEQA and must be substantially supplemented, amended, and recirculated before the reviewing bodies make a recommendation or decision on the proposed project. The Alliance encourages the city to require the DEIR to address the Environmental Justice Element as outlined in the California General Plan Guidelines and give the Element the same weight as the mandatory elements of the General Plan.

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For these reasons, SCEJA respectfully requests the need for this Project's DEIR to be substantially supplemented, amended, and recirculated and the City's denial to certify this DEIR. SoCal Environmental Justice Alliance requests to be notified via email at socaleja@gmail.com regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project.

Response SEJA-13

The commentor provides an opinion regarding the Draft EIRs compliance with CEQA and recommends the City supplement, amend, and recirculate the document. The Draft EIR was prepared in accordance with Article 9 of the *CEQA Guidelines* (§15120 – 15132) and the documents conclusions are based on substantial evidence in the public record. The Lead Agency disagrees with the commentor and considers the EIR as modified herein to appropriately and adequately respond to all germane CEQA requirements.

While the City appreciates the commentor's participation in the CEQA process, the responses presented above and the detailed information presented in the Draft EIR substantiate that Project impacts are adequately and accurately presented, and that mitigation incorporated in the EIR acts to reduce potentially significant impacts to the extent feasible. Results and conclusions of the EIR are not affected.

SoCal Environmental Justice Alliance
Green Jobs & Clean Communities

October 7, 2016

VIA US MAIL AND EMAIL

City Planning Commission & City Council
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Julia Descoteaux,Associate Planner
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SUBJECT: COMMENTS ON INDIAN STREET COMMERCE CENTER

To whom it may concern:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the proposed Indian Street Commerce Center. Please accept and consider these comments on behalf of SoCal Environmental Justice Alliance.

Project Summary

As we understand it, the Indian Street Commerce Center project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. 347,080 square feet of the Project building area would be allocated for distribution warehouse uses; 89,270 square feet would be assigned to manufacturing uses; and 10,000 square feet would be assigned to office uses. The Project does not include a refrigerated/cold storage component. Approximately 35 loading dock doors would be provided along the warehouse's southerly face. SEJA-1

Transportation/Traffic

Section 4.1.2 - Study Area. The DEIR fails to recognize the Freeway Mainline study area in this section. The study area is not introduced until the cumulative impacts are analyzed. The DEIR is misleading by presenting that the source of all traffic will presumably come from the I-215/ Harley Knox Boulevard segment. Likely traffic to and from the project site will come from the 91/I-215 interchange and the 60/I-215 interchange. The 91/I-215 interchange is not considered SEJA-2

at all throughout the DEIR or the TIA. The potential impacts to the 91/I-215 interchange are not analyzed when cumulative impacts could potentially occur at this area. This does not comply with CEQA's requirements for meaningful disclosure. SEJA-2 (cont'd)

Section 4.1.3 - Level of Service and TIA Methodologies. The TIA and DEIR indicate that regional access will be provided from the I-215 and 60 freeways. The TIA and DEIR fail to consider regional access from the 91 freeway. The 91 freeway is a major transportation corridor providing access to the project site from the ports of Long Beach and Los Angeles. The 91 freeway/I-215 interchange provides access to the project site. The DEIR must be revised to fully analyze the potential impacts the proposed project will have on the 91 freeway, including but not limited to the 91 freeway/I-215 interchange. SEJA-3

Section 4.1.6.2 - Existing Roadway System. Again, the DEIR and TIA fail to include the 91 freeway in the traffic/transportation analysis. The DEIR and TIA do not fully disclose all regional sources of traffic to the project site, which is likely to have further impacts on the already cumulatively considerable impacts related to traffic. This does not comply with CEQA's requirements for meaningful disclosure. SEJA-4

Section 4.1.7.2 - Project Trip Distribution. Figures 4.1-6 and 4.1-7 of the DEIR indicate that 30% of passenger car traffic will reach the project site from the I-215/Harley Knox intersection and 20% of passenger car traffic will reach the project site from southbound Indian Street. Indian Street can only be reached by connecting at Perris Boulevard. The Perris Boulevard/60 freeway interchange is not included in the project trip distribution analysis when it has potentially significant impacts to the project trip distribution. SEJA-5

Section 4.1.9.4 - Impact Statements. The DEIR finds the opening year (2020) with and without project LOS to be deficient at 6 intersections. Mitigation Measures 4.1.1 - payment of fees - is applied to all of the potentially cumulative impacts that follow for opening year roadway segments, and freeway off-ramp queueing. However, the TIA indicates that the following areas are under the jurisdiction of the city of Perris: SEJA-6

ID No. 1 - I-215 SB Ramps/Harley Knox Bl.

ID No. 2 - I-215 NB Ramps/Harley Knox Bl.

ID No. 3 - Western Way / Harley Knox Bl.

ID No. 4 - Patterson Ave. / Harley Knox Bl.

Payment of fees is not an acceptable mitigation measure when the impact is in a jurisdiction beyond the scope of the lead agency. An assessment of fees is appropriate when linked to a specific mitigation program. (Anderson First Coalition v. City of Anderson (2005) 130 Cal.App. 4th 1173, Save our Peninsula Comm. v. Monterey County Bd. Of Supers. (2001) 87 Cal.App.4th 99, 141.) Payment of fees is not sufficient where there is no evidence mitigation will actually result. (Gray v. County of Madera (2008) 167 Cal.App.4th 1099,1122.) The assessment of fees

here is not adequate as there is no evidence mitigation will actually result. Mitigation measure 4.1.1 is uncertain and improperly deferred in violation of CEQA. SEJA-6 (cont'd)

Section 4.2.7.2 - Air Quality Impact Statements - Regional Impacts. The DEIR gives a sample construction schedule. The construction schedule presents the project in phases; however, phased construction is not required of the project. The DEIR does not present any analysis of impacts or potential mitigation measures from potential overlap of construction phases. There is no statement that the construction phases will not occur concurrently. Also, there is no requirement that the Project be completed over a certain number of days given. Construction may occur faster as well, which would result in significantly greater daily impacts.

The DEIR states, "should construction occur any time after the dates presented here, incremental and aggregate construction-source emissions would likely decrease since emission factors for construction equipment would progressively decrease in the future". This statement is misleading and assumes a best-case scenario, which is contrary to CEQA's meaningful disclosure requirement. There is no indication of or requirement for project construction to utilize technology that may or may not exist to reduce emissions. The DEIR continues to state, "This is due to the natural turnover of the older vehicle fleet and replacement with more fuel efficient equipment with enhanced emissions controls; and implementation of more stringent regulations which collectively act to reduce construction-source (and operational-source) emissions." Will the DEIR be recirculated and analyzed if the project goes beyond the construction dates given? Will it be analyzed against the more stringent regulations that do not exist currently? This statement is misleading and presents a scenario that is circumstantial and uncertain. SEJA-7

Phased construction with clearly defined descriptions of work during each phase must be required of the proposed project in order for the DEIR mitigation measures and projected impacts to be applicable or relevant. These impacts must be disclosed to the public and decision-makers in a fully revised and recirculated EIR in order to comply with CEQA.

HRA: The HRA presented is unduly optimistic in that it places sensitive receptors, apparently, at the opposite end of their property from where the exposure would take place, rather than at their property lines closest to the project site. HRAs are supposed to be conservative and the modeling should have assessed what might have happened to the receptors given their exposure at their property lines. The DEIR also is inadequate as an informational document in that it does not disclose where the receptors were placed for analysis. Where, exactly, were they placed? The same is true for your worker and schoolchild analysis. As to schoolchildren there is absolutely no basis for not modeling exposures at the adjacent El Portero park playground and fields they are likely to use. The same question is obvious: where did you place the children for purposes of your analysis? SEJA-8

It also does not appear that the HRA used child-specific analysis for the assessment of risks to children; such an assessment should have been done given that studies show reduced lung capacity and increased asthma in children given increased exposure to the pollutants of concern.

EPA's *Framework for Assessing Health Risk of Environmental Exposures to Children*, which we do not believe the HRA used, 1) provides for a more complete evaluation of the potential for vulnerability at different life stages, including a focus on the underlying biological events and critical developmental periods for incorporating mode of action ("MOA") considerations; 2) evaluates the potential for toxicity after exposure during all developmental life stages; and 3) integrates adverse health effects and exposure information across life stages. The HRA also should not discount the fact that children almost certainly live in the residential community that surrounds the school.

SEJA-8 (cont'd)

Section 4.2.7.2 - Air Quality Impact Statements - Operational Source Emissions. The DEIR indicates that the project will have significant and unavoidable impacts with regards to NOx emissions. MM 4.2.5 does not mitigate the emissions of NOx to levels that are less than significant. The DEIR also details project design features in this section, including that sidewalks will be established along the frontage of the project site, which will encourage people to walk. This project detail is insufficient and misleading as there is no employee walk/biking to work program required to result in fewer passenger car trips to mitigate impacts.

SEJA-9

Section 4.3.4 - Greenhouse Gas Emissions Impact Statements - Project GHG Emissions. The DEIR states that the project's emissions of GHG are significant and unavoidable after mitigation. No mitigation measures are offered other than a reference to project design features and operational programs that would act to "generally reduce Project GHG emissions from area sources, energy sources, and other on-site emissions sources which combined, account for approximately 11 percent of the Project total GHG emissions." How did you quantify the 11 percent reduction? How do you quantify the installation of sidewalks to reduce VMT? What is the correlation between installing sidewalks and reducing VMT when there is no employee bike/ walking program discussed or developed? No further mitigation measures are offered. This is inadequate and the DEIR must offer some mitigation measures beyond potential project design features.

SEJA-10

Further, the DEIR states that the project conflicts with the Scoping Plan as well as Moreno Valley's Energy Efficiency and Climate Action Strategy. There are no mitigation measures discussed here either. The details of how the GHG emissions conflict with both documents is not discussed. This does not meet CEQA's meaningful disclosure requirements.

Section 5.2.1 - Cumulative Impacts Related to Transportation/Traffic. The DEIR states that "traffic generated by other known or probable related projects was then added to the TIA ambient traffic growth estimates. These related projects are in part already accounted for in the assumed annual 2 percent increase in ambient traffic growth noted above; and in certain instances, these related projects would likely not be implemented and functional within the 2020 Opening Year time frame assumed for the Project" The DEIR does not provide a list or map of these projects and significantly downplays the impact the cumulative projects have regarding transportation and traffic. There is a map of the cumulative projects buried in the Transportation Impact Analysis as Table 4-4, but the numbers of the projects listed overlap and are difficult to read,

SEJA-11

which makes that map largely useless. Further, burying this information in an Appendix does not comport with the informational and public disclosure purposes of CEQA. SEJA-11 (cont'd)

Section 5.2.2.6 – Cumulative Impact Analysis. Here you refer to a list of cumulative projects related to TAC emissions impacts. You do not provide a map of those cumulative projects. This does not comply with CEQA's requirements for meaningful disclosure. SEJA-12

SoCal Environmental Justice Alliance believes the DEIR for the proposed project fails to comply with CEQA and must be substantially supplemented, amended, and recirculated before the reviewing bodies make a recommendation or decision on the proposed project. The Alliance encourages the city to require the DEIR to address the Environmental Justice Element as outlined in the California General Plan Guidelines and give the Element the same weight as the mandatory elements of the General Plan.

For these reasons, SCEJA respectfully requests the need for this Project's DEIR to be substantially supplemented, amended, and recirculated and the City's denial to certify this DEIR. SoCal Environmental Justice Alliance requests to be notified via email at socaleja@gmail.com regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. SEJA-13

Sincerely,

Joe Bourgeois
Chairman of the Board
SoCal Environmental Justice Alliance

RESOLUTION NO. 2017-08

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, DENYING THE APPEAL AND SUSTAINING THE DECEMBER 15, 2016 ACTIONS OF THE PLANNING COMMISSION AND THEREBY THE CITY COUNCIL CERTIFIES THE FINAL ENVIRONMENTAL IMPACT REPORT (EIR) PEN16-0019 (P16-003) INCLUDED AS EXHIBIT A, ADOPTS THE MITIGATION MONITORING AND REPORTING PROGRAM INCLUDED AS EXHIBIT B, ADOPTS THE FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS INCLUDED AS EXHIBIT C, AND APPROVES PLOT PLAN PEN16-0020 (PA16-0002) WITH CONDITIONS OF APPROVAL INCLUDED AS EXHIBIT D, FOR THE INDIAN STREET COMMERCE CENTER PROJECT, A 446,350 SQUARE FOOT WAREHOUSE BUILDING.

WHEREAS, the applicant, SRG Acquisition, LLC., submitted an application for the Indian Street Commerce Center project PEN16-0020 (PA16-0002), for a 446,350 square foot warehouse building. The proposed project includes the Final Environmental Impact Report (EIR) PEN16-0019 (P16-003), Statement of Overriding Considerations, Mitigation Monitoring Program to be certified and approved prior to and with the approval of the Plot Plan; and

WHEREAS, the City of Moreno Valley (City) worked with the environmental consultant, Applied Planning Inc., in the preparation of an Initial Study checklist and a Notice of Preparation (NOP). A Notice of Completion and Environmental Document Transmittal form were filed with the State Clearinghouse on March 14, 2016 for the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the project. The public review period of the NOP was March 14, 2016 through April 13, 2016. A public scoping meeting was held in connection with the NOP on March 30, 2016 in the Council Chamber at City Hall; and

WHEREAS, the City worked with the environmental consultant, Applied Planning Inc., in the review of NOP response comments for the preparation of a Draft (EIR) for this project. The Draft EIR was circulated to the public and to responsible agencies for comments for a 45 day period beginning on August 25, 2016 and ending on October 10, 2016; and

WHEREAS, since August 25, 2016, copies of the Draft EIR have been made available to the public at the City's offices, on the City's website and at the City's public Library; and

Attachment: Resolution No. 2017-08 [Revision 12] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

WHEREAS, in accordance with Section 15088 of the California Environmental Quality Act (CEQA) Guidelines, the City has prepared responses to comments received during the 45 day comment period on the Draft EIR, and such responses are included as a component of the Final EIR; and

WHEREAS, in accordance with Section 15089(b) of the CEQA Guidelines, on December 2, 2016, the City published a notice in the local newspaper (Press Enterprise) and distributed copies of the Final EIR to the State Clearinghouse, local agencies and other interested parties providing opportunity for their review of the document prior to approval of the project; and

WHEREAS, the Draft and Final EIRS concerning the proposed Indian Street Commerce Center were prepared in sufficient detail and duly circulated in compliance with CEQA, the State CEQA Guidelines and the City's Rules and Procedures to Implement CEQA; and

WHEREAS, the Final EIR includes an analysis of potential impacts associated with the implementation of the Indian Street Commerce Center project, including, but not limited to Traffic and Circulation, Air Quality, Noise, Hydrology and Water Quality, Geology and Soils, Biological Resources, and Cultural Resources; and

WHEREAS, a Mitigation Monitoring Program has been completed to ensure that all of the mitigation measures outlined in the Final EIR will be monitored and implemented through project completion; and

WHEREAS, after careful consideration of those unavoidable environmental impacts of the project which cannot be mitigated to a level below significance (traffic, air quality and greenhouse gas/global climate change), it was determined that even after application of feasible mitigation that these impacts would remain unavoidable. The economic, legal, social, technological and other community benefits that are expected to result from development of the project have been determined by the Planning Commission, as the decision making body for the project, to outweigh the unavoidable adverse environmental effects, as articulated in the Facts, Findings and Statement of Overriding Considerations prepared for the project; and

WHEREAS, A Final EIR, (including the Draft EIR, and responses to comments), has been completed and is being recommended for certification, prior to the approval of discretionary permits related to the project; and

WHEREAS, on December 15, 2016**,** the Planning Commission of the City of Moreno Valley (Planning Commission) conducted a public hearing to consider the Final EIR for the proposed project; and

Attachment: Resolution No. 2017-08 [Revision 12] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

WHEREAS, at said public hearing, the Planning Commission carefully reviewed and considered all the evidence presented in connection with the hearing on the project, including but not limited to the staff report, all written and oral testimony presented, and voted with a 7-0 to certify the Environmental Impact Report, adopt the Overriding Considerations, approve the Mitigation Monitoring Program and to approve the project; and

WHEREAS, on December 22, 2016, Blum/Collins for SoCal Environmental Justice Alliance filed an appeal of the Planning Commission's decision to approve the project with the Community Development Department; and

WHEREAS, the City Council has found the evidence presented sufficient and appropriate to uphold the decisions of the Planning Commission as further disclosed below; and

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

APPROVES Resolution 2017-08. A Resolution of the City Council of Moreno Valley denying the appeal and sustaining the decision of the Planning Commission thereby the City Council CERTIFIES the Final Environmental Impact Report (EIR) PEN16-0019 (P16-003) included as Exhibit A, ADOPTS the Mitigation Monitoring and Reporting Program included as Exhibit B, ADOPTS the, Findings and Statement of Overriding Considerations included as Exhibit C and APPROVES the Plot Plan PEN16-0020 (PA16-0002) for the Indian Street Commerce Center project subject the Conditions of Approval, included as Exhibit D.

APPROVED AND ADOPTED this 7th day of February 2017.

_____
Mayor of the City of Moreno Valley

ATTEST:

_____
Interim City Clerk

Attachment: Resolution No. 2017-08 [Revision 12] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPROVED AS TO FORM:

_____
City Attorney

Attachment: Resolution No. 2017-08 [Revision 12] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

RESOLUTION JURAT

STATE OF CALIFORNIA)

COUNTY OF RIVERSIDE) ss.

CITY OF MORENO VALLEY)

I, Marie Macias, MMC, Interim City Clerk of the City of Moreno Valley, California, do hereby certify that Resolution No. 2017-08 was duly and regularly adopted by the City Council of the City of Moreno Valley at a regular meeting thereof held on the 7th day of February, 2017 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

(Council Members, Mayor Pro Tem and Mayor)

_____

INTERIM CITY CLERK

(SEAL)

Attachment: Resolution No. 2017-08 [Revision 12] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Indian Street Commerce Center

Final Environmental Impact Report



Prepared for
City of Moreno Valley

November 2016

applied planning inc

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

FINAL ENVIRONMENTAL IMPACT REPORT

for the

Indian Street Commerce Center Project

Prepared for:

City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552
Contact Person: Julia Descoteaux

Prepared by:

Applied Planning, Inc.
5817 Pine Avenue, Suite A
Chino Hills, CA 91709

November 2016

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Attachment A: AB 52 Consultation Documentation

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Resolution No. 2017 -
Date Adopted: Februar

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Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

1.0 INTRODUCTION

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

1.0 INTRODUCTION

1.1 OVERVIEW

This document, combined with the Draft Environmental Impact Report (DEIR), constitutes the Final EIR for the Indian Street Commerce Center Project (Project). The DEIR describes existing environmental conditions relevant to the proposal, evaluates the Project's potential environmental effects, and identifies mitigation measures to reduce or avoid the potentially significant impacts. The DEIR was circulated for public review and comment from August 25 through October 10, 2016.

1.2 CONTENT AND FORMAT

Subsequent to this introductory Section 1.0, Section 2.0 of this Final EIR presents revisions and errata corrections to the DEIR text. Responses to comments received on the DEIR are presented at Final EIR Section 3.0. The EIR Mitigation Monitoring Plan is presented at Final EIR Section 4.0.

1.3 DRAFT EIR COMMENTORS

1.3.1 Overview

The complete list of Draft EIR commentors, along with copies of comment letters and responses to comments, is presented at Section 3.0 of this Final EIR. The following list identifies the comment letters received in regard to the Draft EIR:

- Governor's Office of Planning and Research, State Clearinghouse
- March Air Reserve Base
- South Coast Air Quality Management District
- Eastern Municipal Water District
- Moreno Valley Environmental and Historical Preservation Board

- Moreno Valley Unified School District
- Pechanga Cultural Resources
- Johnson & Sedlack
- Lozeau Drury
- SoCal Environmental Justice Alliance

1.3.2 Presentation of Comments and Responses

All comment letters received in regard to the Draft EIR are included, along with corresponding responses, in their entirety at Final EIR Section 3.0, *Comments and Responses*.

1.4 LEAD AGENCY AND POINT OF CONTACT

The Lead Agency for the Project and EIR is the City of Moreno Valley. Any questions or comments regarding the preparation of this document, its assumptions, or its conclusions, should be referred to:

Ms. Julia Descoteaux, Associate Planner
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

1.5 PROJECT SUMMARY

The following information is summarized from the Project Description in the Draft EIR. For additional detail in regard to Project characteristics and Project-related improvements, along with analyses of the Project's potential environmental impacts, please refer to Draft EIR Sections 3.0 and 4.0, respectively.

1.5.1 Project Location

The Project site is located in the southern portion of the City of Moreno Valley, in western Riverside County. The Project site is located approximately one-half mile westerly of Perris Boulevard and is bounded by Indian Street to the east. Grove View Road (alignment) comprises the Project site northerly boundary. March Air Force Base is located approximately one-third mile westerly of the Project site.

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1.5.2 Project Overview

The Project includes the proposed Indian Street Commerce Center Project, and all facilities proposed within the Project site, on- and off-site supporting improvements, and associated discretionary actions necessary to realize the development. In summary, the Project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. As currently proposed, 347,080 square feet of the Project building area would be allocated for distribution warehouse uses; 89,270 square feet would be assigned to manufacturing uses; and 10,000 square feet would be assigned to office uses. The Project does not include a refrigerated/cold storage component.

1.5.3 Project Objectives

The primary goal of the Project is to develop high quality light industrial/business park uses accommodating a variety of prospective tenants. Complementary Project Objectives include the following:

- Implement the City's General Plan through development that is consistent with the General Plan Community Development Element and applicable General Plan Goals, Objectives, Policies and Programs;
- Implement the Moreno Valley Industrial Area Plan through development that is consistent with the Area Plan land uses and development concepts, and in total supports the Area Plan Vision;
- Provide adequate roadway and wet and dry utility infrastructure to serve the Project;
- Accommodate warehouse and manufacturing uses that are compatible with adjacent land uses;
- Provide an attractive, efficient and safe environment for warehouse uses that is cognizant of natural and man-made conditions;
- Accommodate a mix of warehouse and manufacturing uses responsive to current and anticipated market demands;
- Establish new development that would increase locally available employment opportunities and would further the City's near-term and long-range fiscal goals and objectives; and

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- Establish new development that would increase locally available employment opportunities thereby improving jobs/housing balance within the City.

1.5.4 Discretionary Actions

1.5.4.1 Lead Agency Discretionary Actions and Permits

Requested decisions, or discretionary actions, necessary to realize the Project include, but may not be limited to the following:

- **Certification of the EIR (City Case #P16-003).** The proposed development is a Project under CEQA, and may result in significant environmental impacts. Lead Agency certification of the Project EIR is required;

- **Plot Plan Review and Approval** to include Project design and architectural reviews;

- **Construction, grading, and encroachment permits** allowing implementation of the Project facilities within City of Moreno Valley jurisdictional areas; and

- **Vacation and/or dedication of public rights-of-way and easements** as elements of the proposed parcel map, or independent of the map. Rights-of-way and easements would provide public access, and ensure appropriate alignment of and access to infrastructure and utilities.

1.5.4.2 Responsible and Trustee Agency Discretionary Actions, Permits, and Consultation

CEQA Guidelines Section 15124 also states that the EIR should, to the extent known, include a list of all the agencies expected to use the EIR in their decision-making (Responsible Agencies) and a list of permits and other approvals required to implement the project. Based on the current Project design concept, the anticipated permits to realize the proposal (and associated Responsible Agencies) will likely include, but are not limited to, the following:

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- Tribal Resources consultation with requesting Tribes as provided for under *AB 52, Gatto. Native Americans: California Environmental Quality Act*;

- Permitting may be required by/through the Regional Water Quality Control Board (RWQCB) pursuant to requirements of the City's National Pollutant Discharge Elimination System (NPDES) Permit;

- Permitting may be required by/through the South Coast Air Quality Management District (SCAQMD) for certain equipment or land uses that may be implemented within the Project area; and

- Various construction, grading, and encroachment permits allowing implementation of the Project facilities.

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Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

2.0 REVISIONS AND ERRATA CORRECTIONS

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

2.0 REVISIONS AND ERRATA CORRECTIONS

2.1 INTRODUCTION

Based on the comments received on the Draft EIR (which are provided in full in Section 3.0 of this Final EIR), this Section presents revisions to the text of the Draft EIR. For text corrections, additional text is identified by **bold underlined text**, while deletions are indicated by ~~strikeout font~~. All text revisions affecting mitigation measures have been incorporated into the Mitigation Monitoring Plan presented in Section 4.0 of this Final EIR. Text changes are presented under the chapter or topical section of the Draft EIR where they are located. The revisions and corrections provided here expand and clarify analyses previously provided, and do not constitute substantive new information. Conclusions of the Draft EIR are not affected by these revisions.

2.2 REVISIONS

2.2.1 Revisions to Draft EIR Section 4.1, Transportation/Traffic

As a matter of clarification, the following sub-section is added to the Draft EIR.

4.1.2.5 Study Area Freeway Mainline Segments

The Project TIA (EIR Appendix B) incorporates a *Supplemental Basic Freeway Segment Analysis*. The Supplemental Analysis evaluates freeway segments of the SR-91, SR-60, and I-215 Freeways based on Caltrans traffic study guidelines and reflecting actual vehicle-based peak hour directional volumes. Freeway segments evaluated in the Supplemental Analysis are identified below.

ID	Freeway	Direction	Segment
1	SR-91	Eastbound	I-15 Freeway to McKinley St.
2	SR-91	Eastbound	McKinley St. to Riverwalk Pkwy.

ID	Freeway	Direction	Segment
3	SR-91	Eastbound	Riverwalk Pkwy. To Magnolia Av.
4	SR-91	Eastbound	Magnolia Av. to La Sierra Av.
5	SR-91	Eastbound	La Sierra Av. to Tyler Av.
6	SR-91	Eastbound	Tyler Av. to Van Buren Bl.
7	SR-91	Eastbound	Van Buren Bl. to Adams St.
8	SR-91	Eastbound	Adams St. to Madison St.
9	SR-91	Eastbound	Madison St. to Arlington Av.
10	SR-91	Eastbound	Arlington Av. to Central Av.
11	SR-91	Eastbound	Central Av. to 14th St.
12	SR-91	Eastbound	14th St. to University Av.
13	SR-91	Eastbound	University Av. to Spruce St.
14	SR-91	Eastbound	Spruce St. to I-215 Freeway
15	SR-60	Westbound	I-215 Freeway to Day St.
16	SR-60	Westbound	Day St. to Frederick St.
17	I-215	Southbound	SR-60/SR-91 Freeway to Blaine St.
18	I-215	Southbound	Blaine St. to University Av.
19	I-215	Southbound	University Av. to Martin Luther King Bl.
20	I-215	Southbound	Martin Luther King Bl. to Central Av.
21	I-215	Southbound	Central Av. to Box Springs Rd.
22	I-215	Southbound	Box Springs Rd. to SR-60/I-215 Freeway
23	I-215	Southbound	SR-60 Freeway to Eucalyptus Av.
24	I-215	Southbound	Eucalyptus Av. to Alessandro Bl.
25	I-215	Southbound	Alessandro Bl. to Cactus Av.
26	I-215	Southbound	Cactus Av. to Van Buren Bl.
27	I-215	Southbound	Van Buren Bl. to Harley Knox Bl.
28	I-215	Southbound	Harley Knox Bl. to Ramona Exwy.
29	I-215	Southbound	Ramona Exwy. to Nuevo Rd.
30	SR-91	Westbound	I-15 Freeway to McKinley St.
31	SR-91	Westbound	McKinley St. to Riverwalk Pkwy.
32	SR-91	Westbound	Riverwalk Pkwy. To Magnolia Av.
33	SR-91	Westbound	Magnolia Av. to La Sierra Av.
34	SR-91	Westbound	La Sierra Av. to Tyler Av.
35	SR-91	Westbound	Tyler Av. to Van Buren Bl.
36	SR-91	Westbound	Van Buren Bl. to Adams St.
37	SR-91	Westbound	Adams St. to Madison St.
38	SR-91	Westbound	Madison St. to Arlington Av.
39	SR-91	Westbound	Arlington Av. to Central Av.
40	SR-91	Westbound	Central Av. to 14th St.
41	SR-91	Westbound	14th St. to University Av.
42	SR-91	Westbound	University Av. to Spruce St.
43	SR-91	Westbound	Spruce St. to I-215 Freeway
44	SR-60	Eastbound	I-215 Freeway to Day St.
45	SR-60	Eastbound	Day St. to Frederick St.

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46	I-215	Northbound	SR-60/SR-91 Freeway to Blaine St.
47	I-215	Northbound	Blaine St. to University Av.
48	I-215	Northbound	University Av. to Martin Luther King Bl.
49	I-215	Northbound	Martin Luther King Bl. to Central Av.
50	I-215	Northbound	Central Av. to Box Springs Rd.
51	I-215	Northbound	Box Springs Rd. to SR-60/I-215 Freeway
52	I-215	Northbound	SR-60 Freeway to Eucalyptus Av.
53	I-215	Northbound	Eucalyptus Av. to Alessandro Bl.
54	I-215	Northbound	Alessandro Bl. to Cactus Av.
55	I-215	Northbound	Cactus Av. to Van Buren Bl.
56	I-215	Northbound	Van Buren Bl. to Harley Knox Bl.
57	I-215	Northbound	Harley Knox Bl. to Ramona Exwy.
58	I-215	Northbound	Ramona Exwy. to Nuevo Rd.

2.2.1 Revisions to Draft EIR Section 4.3, Global Climate Change and Greenhouse Gas Emissions

As a matter of clarification, the DEIR text at page 4.3-38 is amended as follows:

As substantiated in the preceding discussions, the Project would conflict with attainment of GHG emissions reductions identified in the AB 32 Scoping Plan. **The City of Moreno Valley Climate Action Strategy (CAS) GHG emissions reduction target is predicated on AB 32 Scoping Plan GHG emissions reductions target. The fact that the Project would not achieve the AB 32 GHG Scoping Plan emissions reductions target leads to the conclusion that the Project would likewise not achieve the CAS GHG emissions reductions target.** Further, GHG emissions generated by the Project would exceed GHG emissions significance thresholds established by the City of Moreno Valley.

2.2.2 Revisions to Draft EIR Section 4.8, Cultural Resources

Based on comments received from the Pechanga Band of Luiseño Indians, the following text (Draft EIR page 4.8-16) is revised as follows:

> As previously mentioned, a sacred lands search request was sent to the Native American Heritage Commission **(NAHC).** ~~; a response was received on January 28, 2016. On January 29, 2016, l~~ **L**etters were sent to 21 local Native American representatives wishing to be informed of projects within their traditional territories. ~~To date, one~~ **A** response **to the**

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NAHC sacred lands search request has been received from the Rincon Band of Luiseño Indians ~~(Tribe)~~. In the response, the ~~Tribe~~ **Rincon Band of Luiseño Indians representative** states that although the Project site is within the Luiseño Aboriginal Territory, it is not located within Rincon's Historic Boundaries. The ~~Tribe~~ **Rincon Band of Luiseño Indians representative** also states that they do not have any additional information regarding the site.

Additionally, the Pechanga Band of Luiseño Indians submitted comments on the Notice of Preparation in April 2016. The Pechanga Band of Luiseño Indians NOP Response is noted at EIR Table 1.7-1, *List of NOP Respondents and Summary of NOP Comments*, and the Pechanga Band of Luiseño Indians NOP Response is provided at EIR Appendix A. The Pechanga Band of Luiseño Indians submitted a formal request to consult with the Lead Agency under AB 52 on February 22, 2016. Formal consultation with the lead Agency occurred on April 25, 2016 and through email/telephone communication thereafter.

During the consultation, the Pechanga Band of Luiseño Indians informed the City that the Project is located within a Traditional Cultural Landscape (TCL), a type of Tribal Cultural Resource (TCR). Although the Project development will impact a TCR, Pechanga did not request formal mitigation measures to address the cumulative and potential direct impacts this Project may have; thus, conditions of approval were requested that would include both archaeological and Native American monitoring as well as the standard City Inadvertent Finds language.

Additionally, the mitigation measures presented within the Draft EIR are amended as follows:

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~~4.8.2 If previously unidentified prehistoric/Native American resources are identified, a qualified archaeologist must be notified and, in consultation with the local Native American representative(s), be recovered and analyzed in accordance with CEQA guidelines, and curated at the University of California, Riverside, Archaeological Research Unit; the Western Center; or with the appropriate Native American repository (e.g., Pechanga facility in Temecula). In addition, an archaeological monitoring program should be initiated and continued until the archaeological consultant concludes the program is no longer necessary.~~

4.8.2 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a professional archaeological monitor has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities and that the monitor has the authority to temporarily halt and redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project archaeologist, with input from the Pechanga Tribe, shall prepare a Cultural Resources Monitoring Plan (CRMP) to document protocols for inadvertent finds, to determine potential protection measures from further damage and destruction for any identified archaeological resource(s)/tribal cultural resources (TCRs), outline the process for monitoring and for completion of the final Phase IV Monitoring Report. If any archaeological and/or TCRs are identified during monitoring, these will also be documented and addressed per standard archaeological protocols in the Phase IV report, with the exception of human remains which will be addressed per Mitigation Measure 4.8.6. The Project Archaeologist shall attend the pre-grading meeting with the City and contractors to explain and coordinate the requirements of the monitoring program.

4.8.3 At least 30 days prior to the issuance of a grading permit, the Applicant shall contact the Pechanga Band of Luiseño Indians to develop a Cultural Resources Treatment Agreement and shall provide evidence to the City of Moreno Valley that the professionally qualified Native American monitor(s) has been secured,

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and that the Tribe shall be allowed to monitor all mass grading and trenching activities. The Tribal representative(s) shall attend the pre-grading meeting with the City and contractors to explain and coordinate the requirements of the monitoring program.

4.8.4 If, during mass grading and trenching activities, the Archaeological or Pechanga Monitors suspect that an archaeological resource and/or TCR may have been unearthed, the monitor identifying the potential resources, in consultation with the other monitor as appropriate, shall immediately halt and redirect grading operations in a 50-foot radius around the find to allow identification and evaluation of the suspected resource. The Native American monitor(s) or appropriate representative(s) and the archaeological monitor shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. The archaeological monitor and Pechanga monitor(s) or appropriate representative(s), the Project Applicant, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). All sacred sites, should they be encountered within the Project area, shall be avoided and preserved as the preferred mitigation, if feasible.

4.8.5 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

"If any suspected archaeological resources are discovered during ground-disturbing activities and the archaeological monitor or Pechanga representatives are not present, the construction supervisor is obligated to halt work in a 50-foot radius around the find and call the Project archaeologist and the Pechanga representatives to the site to assess the significance of the find."

4.8.6 If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to

California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the Coroner. If the Riverside County Coroner determines the remains to be Native American, the California Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately notify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98.

4.8.7 Prior to building permit issuance, the Project archaeologist shall prepare a final Phase IV Monitoring Report as outlined in the CRMP, which shall be submitted to the City Planning Division, Pechanga Band of Luiseño Indians, and the Eastern Information Center at the University of California, Riverside. The report shall document Project impacts to archaeological and tribal cultural resources, if any. All cultural material, excluding sacred, ceremonial, grave goods and human remains, collected during the grading monitoring program and from any previous archaeological studies or excavations on the Project site shall be curated, as determined by the treatment plan, according to the current professional repository standards and may include the Pechanga Bands curatorial facility or the Western Science Center in Hemet at the landowners discretion.

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3.0 COMMENTS AND RESPONSES

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3.0 COMMENTS AND RESPONSES

3.1 INTRODUCTION

The following Section presents written comments received pursuant to public review of the DEIR, and provides responses to those comments as required by California Code of Regulations, Title 14 (hereinafter, "*CEQA Guidelines*") Sections 15089, 15132, and 15088. Specifically, *CEQA Guidelines* Section 15088 (a) requires that: "[t]he lead agency . . . evaluate comments on environmental issues received from persons who reviewed the draft EIR and . . . prepare a written response. The lead agency shall respond to comments received during the noticed comment period and any extensions and may respond to late comments." The 45-day comment period on the Draft EIR commenced on August 25 and concluded October 10, 2016.

In summary, the City's written responses describe the disposition of significant environmental issues raised and any necessary revisions to the Draft EIR are made as a result of the comments. Substantive revisions and errata corrections to the Draft EIR are presented in Section 2.0 of this Final EIR. Additionally, the City's written responses provide a good faith, reasoned analysis of all environmental issues raised and cite to specific factual and legal support for the Draft EIR's conclusions.

3.1.1 Comments Received

The following Section presents a list of the comment letters received during the Draft EIR public review period. Comment letters have been generally organized by state/federal agencies; county/regional agencies; and local organizations and individuals. Each letter has been assigned an identifying designation (generally an acronym or name abbreviation), and topical items within each letter have been

numbered. Table 3-1 lists all DEIR commentors and the designation assigned to each. Commentor correspondence and correlating responses are presented subsequently. Comments have been reproduced verbatim and without grammatical or typographical correction.

Table 3-1
DEIR Commentors

Commentor	Acronym Assigned	Correspondence Date
State/Federal Agencies		
State Clearinghouse	SCH	October 11, 2016
March Air Reserve Base	MARB	October 7, 2016
South Coast Air Quality Management District	AQMD	September 20, 2016
County/Regional Agencies		
Eastern Municipal Water District	EMWD	September 29, 2016
Moreno Valley Environmental and Historical Preservation Board	EHPB	October 13, 2016
Moreno Valley Unified School District	MVUSD	September 27, 2016
Pechanga Cultural Resources	PCR	October 10, 2016
Individuals and Organizations		
Johnson & Sedlack	JS	October 10, 2016
Lozeau Drury	LD	October 6, 2016
SoCal Environmental Justice Alliance	SEJA	October 7, 2016

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STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

October 11, 2016

RECEIVED
OCT 17 2016
CITY OF MORENO VALLEY
Planning Division

Julia Descoteaux
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553

Subject: Indian Street Commerce Center Project
SCH#: 2016031036

Dear Julia Descoteaux:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on October 10, 2016, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

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Document Details Report
State Clearinghouse Data Base

SCH# 2016031036
Project Title Indian Street Commerce Center Project
Lead Agency Moreno Valley, City of

Type EIR Draft EIR

Description The project proposes approx. 446,350 sq. ft. of light industrial uses within an approx. 19.64-acre site. As currently proposed, 357,080 sq. ft., or approx. 80 percent of the Project building area would be allocated for distribution warehouse uses; the remaining 89,270 sq. ft., or approx. 20 percent of the Project building area would be assigned to manufacturing uses.

Lead Agency Contact

Name Julia Descoteaux
Agency City of Moreno Valley
Phone 951-413-3209 **Fax**
email
Address 14177 Frederick Street
City Moreno Valley **State** CA **Zip** 92553

Project Location

County Riverside
City Moreno Valley
Region
Lat / Long
Cross Streets Indian Street/Grove View Road
Parcel No. 316-210-019, -+020, -057, -077
Township **Range** **Section** **Base**

Proximity to:

Highways I-215
Airports March Air Reserve Base
Railways
Waterways
Schools Various
Land Use Present Use: Vacant/Zoning: Industrial (I)/General Plan Designation: Business Park/Light Industrial (BP/LI)

Project Issues Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Noise; Toxic/Hazardous; Traffic/Circulation; Water Quality; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 6; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 8; Regional Water Quality Control Board, Region 8; Native American Heritage Commission

Date Received 08/25/2016 **Start of Review** 08/25/2016 **End of Review** 10/10/2016

Note: Blanks in data fields result from insufficient information provided by lead agency.

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STATE OF CALIFORNIA
GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
STATE CLEARINGHOUSE
SCH No. 2016031036

Response SCH-1

State Clearinghouse receipt of the Indian Street Commerce Center Project Draft EIR is acknowledged, as is distribution of the Draft EIR to the listed State Agencies. The State-assigned Clearinghouse reference number (SCH No. 2016031036) and dates of the public review period for the Draft EIR (August 25 through October 10, 2016) are also acknowledged.

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DEPARTMENT OF THE AIR FORCE
AIR FORCE RESERVE COMMAND

7 October 2016

MEMORANDUM FOR CITY OF MORENO VALLEY
ATTN: JULIA DESCOTEAUX
COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION
14177 FREDERICK STREET
P.O. BOX 88005
MORENO VALLEY, CA 92552-0805

FROM: 452d Mission Support Group/Civil Engineers
Base Operating Support
610 Meyer Drive, Bldg. 2403
March ARB CA 92518-2166

SUBJECT: Indian Street Commerce Center, Draft Environmental Impact Report P16-003

1. The March Air Reserve Base (MARB) review of the proposed 446,350 square foot light industrial warehouse building on 19.54 acres, located approximately one-half mile westerly of Perris Boulevard and is bounded by Indian Street to the east, is provided in this memorandum. MARB-1

2. This property is not located within any of the MARB Accident Potential Zones or Clear Zone for Runway 14/32. While the proposed use may be consistent with the Riverside County Airport Land Use Compatibility Plan (RCALUC) zoning and land use guidelines, the proposed project presents a concern due to the location to the Clear Zone (CZ) at the south end of the runway. Buildings in this area should not be used for high-density functions since the objective of the land use guidelines in and around APZ's is to restrict people-intensive uses due to a greater risk of aircraft incident in these areas. There are restrictions on land uses and heights of natural objects and man-made objects in the vicinity of air installations that may obstruct the airspace, attract birds, cause electromagnetic or thermal interference, or produce dust, steam, smoke, or light emissions to provide for safety of flight and the public welfare. MARB-2

3. The site is located within an area that is exposed to elevated levels of noise from the base's flying operations; reference the AICUZ for MARB for the noise contours for this area. A more recent model can be found within the Land Use Compatibility Plan (LUCP) adopted by the RCALUC dated November 13, 2014. The document titled, "Background Data: March Air Reserve Base/Inland Port Airport Environs," is an insert to the LUCP. Referencing Exhibit MA-4 from the aforementioned insert, it would appear this project resides within an area that is subject to 65 dB Community Noise Equivalent Level (CNEL). As such, the employees of this proposed development would be subject to noise occurrences that may generate complaints to the base and the community leadership. Employees and regularly received public may require protection using noise abatement (noise level reduction) provided in the construction design. MARB-3

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Additionally, hearing protection for employees may be required by Occupational Safety and Health Administration (OSHA) or other agencies as it relates to safety and health in a high noise level work environment. MARB-3 (cont'd)

4. In referencing a map of the area, this site is approximately .28 miles, just east of the Clear Zone at the approach end of Runway 32. Approximately 27% of recorded Air Force accidents have historically taken place (AICUZ, FIG B-3) in the Clear Zone area. As such, there will be an elevated accident potential risk to developments on this site. MARB-4

5. The MARB position is the development is compatible with guidance found in AFI 32-7063, dated 18 December 2015, titled Air Installations Compatible Use Zones Program. The following are some mitigation steps that could and should be implemented, and it would be our desire that all such steps are researched and implemented. MARB-5

- BMPs must be reviewed by the Base and must not introduce hazards related to birdstrikes
- Solar panels or any reflective materials on the rooftop are prohibited
- Noise level hazards must be mitigated
- Personnel density in the floor area should be considered. Although this development is outside the APZs ,those that are within APZ1 are not allowed to exceed the 25 persons/acre

6. March ARB looks forward to receiving notification of the final site plans and public hearings. MARB-6

7. Thank you for the opportunity to review and comment on this proposed development. If you have questions, please contact Ms. Denise Hauser at (951) 655-4862.

SEAN P. FEELEY
Base Civil Engineer

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March Air Reserve Base
452d Mission Support Group/Civil Engineers
Base Operating Support
610 Meyer Drive, Building 2403
March ARB, CA 92518

Letter Dated October 7, 2016

Comment MARB-1

1. The March Air Reserve Base (MARB) review of the proposed 446,350 square foot light industrial warehouse building on 19.54 acres, located approximately one-half mile westerly of Perris Boulevard and is bounded by Indian Street to the east, is provided in this memorandum.

Response MARB-1

The commentor's brief summary of the Project is correct with the exception of the site acreage. The correct acreage as presented within the Draft EIR is 19.64 acres.

Comment MARB-2

2. This property is not located within any of the MARB Accident Potential Zones or Clear Zone for Runway 14/32. While the proposed use may be consistent with the Riverside County Airport Land Use Compatibility Plan (RCALUC) zoning and land use guidelines, the proposed project presents a concern due to the location to the Clear Zone (CZ) at the south end of the runway. Buildings in this area should not be used for high-density functions since the objective of the land use guidelines in and around APZ's is to restrict people-intensive uses due to a greater risk of aircraft incident in these areas. There are restrictions on land uses and heights of natural objects and man-made objects in the vicinity of air installations that may obstruct the airspace, attract birds, cause electromagnetic or thermal interference, or produce dust, steam, smoke, or light emissions to provide for safety of flight and the public welfare.

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Response MARB-2

The commentor presents concerns regarding the location of the Project site in relation to the MARB runway. In this regard, the commentor is referred to Draft EIR Section 4.5, *Hazards/Hazardous Materials*, which contains the following discussion:

> "The Project site lies within the area regulated under the 2014 Riverside County ALUCP for March ARB/IPA (ALUCP) and the 2005 March Air Reserve Base Air Installation Compatibility Use Zone Study (MARB AICUZ, AICUZ). The compatibility zones and associated criteria set forth in the ALUCP provide noise and safety compatibility protection equivalent to or greater than correlating criteria presented in the AICUZ (ALUCP, p.1). *The analysis presented herein reflects the more stringent criteria established under the ALUCP* [emphasis added].
>
> Under the ALUCP, the Project site is overlain by Compatibility Zones B2 and C1 (please refer to [Draft EIR] Figure 4.5-1). Basic Compatibility Criteria for these Zones are also presented at [Draft EIR] Figure 4.5-1. Project consistency with applicable Zone Criteria is summarized below.
>
> **Zone B2**
>
> The westerly portion of the Project site is overlain by Zone B2, as delineated under the ALUCP. Consistent with the Basic Compatibility Criteria for Zone B2, this portion of the Project site would not be developed, nor otherwise accommodate, any of the following: children's schools; daycare centers; libraries; hospitals; congregate care facilities; hotels/ motels; places of assembly; buildings with more than three above ground habitable floors; noise-sensitive outdoor non-residential uses; critical community infrastructure facilities; or hazards to flight.
>
> Consistent with other development conditions articulated for Zone B2, the Project site plan and building design concepts comply with the following

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criteria: Project structures would be located as far as possible from extended runway centerline(s); sound attenuation would be provided for all Project office uses in Zone B2 ensuring that interior noise levels would not exceed 45 dBA CNEL (please refer also to EIR Section 4.4, *Noise*); above-ground bulk storage of hazardous materials is not proposed or required.

The Project does not propose designs or uses that would not encroach on restricted air space(s) nor would the Project structures otherwise would adversely affect airfield operations. Federal Aviation Administration (FAA) airspace review has been completed for the Project, and the FAA has issued *No Hazard to Air Navigation Determinations* for all Project facilities; the Riverside County ALUC has reviewed the Project and determined the Project to be consistent with the March Air Reserve Base/Inland Port Airport ALUCP (please refer to EIR Appendix I, Airport Compatibility Documentation). The Project does not propose or require facilities or uses that would generate electromagnetic radiation; an avigation easement would be recorded against all properties within Zone B2.

Zone C1

The easterly portion of the Project site is overlain by ALUCP Zone C1. Consistent with the Basic Compatibility Criteria for Zone C1, this portion of the Project site would not be developed with, nor otherwise accommodate any of the following: children's schools; daycare centers; libraries; hospitals; congregate care facilities; places of assembly; noise-sensitive outdoor non-residential uses; or hazards to flight.

Consistent with other development conditions articulated for Zone C1, the Project site plan concept and concept building designs comply with the following criteria: critical community infrastructure facilities are not

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required or proposed; above-ground bulk storage of hazardous materials is not required or proposed; sound attenuation would be provided for all Project office uses in Zone B2 ensuring that interior noise levels would not exceed 45 dBA CNEL (please refer also to EIR Section 4.4, *Noise*). The Project does not propose or require facilities or uses that would generate electromagnetic radiation; deed notice and disclosure would be provided for all properties within Zone C1. The Project does not propose designs or uses that would not encroach on restricted air space(s) nor would the Project structures otherwise would adversely affect airfield operations. Federal Aviation Administration (FAA) airspace review has been completed for the Project, and the FAA has issued *No Hazard to Air Navigation Determinations* for all Project facilities; the Riverside County ALUC has reviewed the Project and determined the Project to be consistent with the March Air Reserve Base/Inland Port Airport ALUCP (please refer to EIR Appendix I, Airport Compatibility Documentation). The Project does not propose or require facilities or uses that would generate electromagnetic radiation; an avigation easement would be recorded against all properties within Zone B2.

Other Considerations

As noted at EIR Section 3.0, *Project Description*, the Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power (approximately 160,350 kWh/year) to serve all Project office areas (*Project Description*, p. 3-19). Given the Project's proximity to March ARB/IPA, there is the potential for the Project PV solar panel array to cause reflective glare that could adversely affect March ARB/IPA operations. The Federal Aviation Administration recommends analysis of these potential glare impacts employing the Sandia National Laboratories Solar Glare Hazard Analysis Tool (SGHAT). The SGHAT analysis of the concept Project PV panel array design (please refer to EIR Appendix I, Airport Compatibility

Documentation) indicates that, if implemented, the Project PV solar panels would not result in or cause significant glare impacts that would adversely affect operations of March ARB/IPA.

As indicated in the preceding discussions, the Project site is overlain by Compatibility Zones B2 and C1, and the Project does not lie within nor is affected by the clear Zone (CZ) at the south end of the March ARB/IPA runway(s). Moreover, the Project buildings and development intensities are consistent with development Compatibility Criteria established by the ALUCP. The ALUCP Compatibility Criteria are as restrictive, or are more restrictive than AICUZ criteria cited by the commentor. It is also noted that the Riverside County ALUC has reviewed the Project and determined the Project to be consistent with the March Air Reserve Base/Inland Port Airport ALUCP (please refer to EIR Appendix I, Airport Compatibility Documentation).

Based on the preceding, the Draft EIR concluded that the potential for the Project to result in or cause a safety hazard for people residing or working in the Project or to adversely affect airport operations was less-than-significant. While the commentor's concerns will be forwarded to the decision-making body, revision of the Draft EIR is not required; results and conclusions are not affected.

Comment MARB-3

3. The site is located within an area that is exposed to elevated levels of noise from the base's flying operations; reference the AICUZ for MARB for the noise contours for this area. A more recent model can be found within the Land Use Compatibility Plan (LUCP) adopted by the RCALUC dated November 13, 2014. The document titled, "Background Data: March Air Reserve Base/Inland Port Airport Environs," is an insert to the LUCP. Referencing Exhibit MA-4 from the aforementioned inset, it would appear this project resides within an area that is subject to 65 dB Community Noise Equivalent Level (CNEL). As such, the employees of this proposed development would be subject to noise occurrences that may generate complaints to the base and the community leadership. Employees and regularly received public may require protection using noise abatement (noise level reduction) provided in the construction design.

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Additionally, hearing protection for employees may be required by Occupational Safety and Health Administration (OSHA) or other agencies as it relates to safety and health in a high noise level work environment.

Response MARB-3

The noise contour boundaries that are used to determine potential aircraft-related noise impacts associated with MARB are presented within the Riverside County ALUCP (presented as Draft EIR Figure 4.4-5). The Project site is located within the 60 to 65 dBA CNEL noise level contours, and therefore, represents a normally acceptable land use based on Riverside County ALUCP compatibility criteria. For the Project warehouse office uses, typical building construction practices would achieve 20 dBA noise attenuation, yielding interior noise levels of 40 to 45 dBA, consistent with applicable ALUCP and County-wide criteria.[1] It is also noted that the Riverside County ALUC has reviewed the Project and determined the Project to be consistent with the March Air Reserve Base/Inland Port Airport ALUCP (please refer to EIR Appendix I, Airport Compatibility Documentation).

Comment MARB-4

4. In referencing a map of the area, this site is approximately .28 miles just east of the Clear Zone at the approach end of Runway 32. Approximately 27% of recorded Air Force accidents have historically taken place (AICUZ FIG B-3) in the Clear Zone area. As such, there will be an elevated accident potential risk to developments on this site.

Response MARB-4

The commentor summarizes Clear Zone accident statistics. As detailed in the previous responses, the Project site is not located within the AICUZ/ALUCP Clear Zone Areas. Further, the Project site would not be developed with, nor otherwise accommodate, any of the uses prohibited by the ALUCP. Additionally, Project structures would be located

1 "For office uses, the [maximum acceptable] interior standard shall be CNEL 45 dB, the same as the countywide criterion." *March Air Reserve Base / Inland Port Airport Land Use Compatibility Plan*, p. 2.

as far as possible from extended runway centerline(s). Federal Aviation Administration (FAA) airspace review has been completed for the Project, and the FAA has issued *No Hazard to Air Navigation Determinations* for all Project facilities; the Riverside County ALUC has reviewed the Project and determined the Project to be consistent with the March Air Reserve Base/Inland Port Airport ALUCP (please refer to EIR Appendix I, Airport Compatibility Documentation). As also noted above, the EIR analysis reflects and responds to criteria established under the ALUCP. The ALUCP criteria is equivalent to, or is more stringent and restrictive than, the AICUZ parameters cited by the commentor.

Based on the preceding, the Project complies with applicable criteria established under the ALUCP/AICUZ, thereby minimizing potential risk to developments on the Project site. The results and conclusions of the Draft EIR are not affected; no revisions are necessary.

Comment MARB-5

5. The MARB position is the development is compatible with guidance found in AFI 32-7063, dated 18 December 2015, titled Air Installations Compatible Use Zones Program. The following are some mitigation steps that could and should be implemented, and it would be our desire that all such steps are researched and implemented.

- *BMPs must be reviewed by the Base and must not introduce hazards related to birdstrikes*
- *Solar panels or any reflective materials on the rooftop are prohibited*
- *Noise level hazards must be mitigated*
- *Personnel density in the floor area should be considered. Although this development is outside the APZs, those that are within APZI are not allowed to exceed the 25 persons/acre.*

Response MARB-5

The commentor provides some measures they feel should be implemented by the Project. The City has considered the measures suggested by the commentor; responses are provided in the following table.

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Recommended Measure	Remarks
BMPs must be reviewed by the Base and must not introduce hazards related to birdstrikes.	The Project has already been reviewed by the FAA and the Riverside County ALUC. The Project was found to be consistent with the March Air Reserve Base/Inland Port Airport ALUCP. No hazards related to BMPs or birdstrikes were identified. (please refer to EIR Appendix I, *Airport Compatibility Documentation*).
Solar panels or any reflective materials on the rooftop are prohibited.	Draft EIR Section 3.4.10, *Energy Efficiency/Sustainability* states: "The Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provider that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City." The complete prohibition of solar panels within the AFI 32-7063 is inaccurate, as evidenced by the following text: "3.6.3.1. Glint/Glare potential from Photovoltaic (PV) Panels. The potential for glint and glare from PV panels is extremely rare. However, depending on materials or the siting of the panels, there may be the potential for glint and glare impacts to Air Traffic Control (ATC) cabs and or pilots on approach to airfields. Use the Department of Energy's Sandia National Laboratory Solar Glare Hazard Analysis Tool (SGHAT), in accordance with DODI 4165.57, to determine whether PV arrays could create a glint/glare problem within HAFZ." (AFI 32-7063 Page 21) The FAA also recommends analysis of potential glare impacts associated with the PV system employing SGHAT.

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Recommended Measure	Remarks
	Consistent with the AFI/FAA recommendations summarized above, a SGHAT analysis was prepared for the project and is provided at EIR Appendix I The SGHAT analysis of the concept Project PV panel array design indicates that, if implemented, the Project PV solar panels would not result in or cause significant glare impacts that would adversely affect operations of March ARB/IPA (please refer to EIR Appendix I, *Airport Compatibility Documentation*).
Noise level hazards must be mitigated.	As concluded within Draft EIR Section 4.4, *Noise*, the Project would not result in significant noise hazards associated with MARB/IPA. As such, no mitigation is required. Please refer also to Response MARB-3.
Personnel density in the floor area should be considered. Although this development is outside the APZs, those that are within APZI are not allowed to exceed the 25 persons/acre.	As referenced by the commentor, the Project site is not located within an area subject to density restrictions. As such, this suggestion is not applicable to the Project.

All potential MARB/IPA interface impacts have been properly evaluated within the Draft EIR, as evidenced by the Project's consistency with the March Air Reserve Base/Inland Port Airport ALUCP and the FAA's issuance of a *No Hazard to Air Navigation Determinations* for all Project facilities. No revisions to the Draft EIR are warranted or necessary.

Comment MARB-6

6. March ARB looks forward to receiving notification of the final site plans and public hearings.

7. Thank you for the opportunity to review and comment on this proposed development. If you have questions, please contact Ms. Denise Hauser at (951) 655-4862.

Response MARB-6

Notification of availability of final site plans and public hearings will be provided as requested. Commentor contact information is noted.

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL AND USPS:
juliad@moval.org

September 20, 2016

Julia Descoteaux, Associate Planner
City of Moreno Valley
Community Development Department
Planning Division
14177 Frederick Street
Moreno Valley, CA 92553

RECEIVED
SEP 26 2016
CITY OF MORENO VALLEY
Planning Division

Draft Environmental Impact Report (Draft EIR) for the Proposed Indian Street Commerce Center Project P16-003 (SCH NO. 2016031036)

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final EIR.

The Lead Agency proposes to develop an approximately 19.64-acre site for approximate 446,350 square feet of warehouse distribution and light industrial uses including 347,080 square feet of warehouse use; 89,270 square feet of manufacturing use; and 10,000 square feet allocated for offices uses. Parking for both buildings totals 589 parking stalls, 342 trailers spaces and a total of 196 loading dock doors. The proposed project is expected to generate approximately 940 total daily trips including 360 daily trucks.[1] Construction is expected to begin in January 2017 and be completed, based on market conditions, in August 2018.

AQMD-1

The Lead Agency has determined that operating emissions primarily from mobile sources will exceed the SCAQMD recommended regional significance threshold for Oxides of Nitrogen (NOx). The SCAQMD staff therefore recommends additional measures to reduce the mobile source impacts during operations. Details are included in the attachment.

Pursuant to Public Resources Code Section 21092.5, SCAQMD staff requests that the Lead Agency provide the SCAQMD with written responses to all comments contained herein prior to the adoption of the Final EIR. The SCAQMD staff is available to work with the Lead Agency to address these issues and any other air quality questions that may arise. Please contact Gordon Mize, Air Quality Specialist CEQA Section, at (909) 396-3302, if you have any questions regarding the enclosed comments.

[1] DEIR, Appendix B - Traffic Impact Analysis (Urban Crossroads, June 29, 2016), Page 58, Table 4-3, Project Trip Generation (Actual Vehicles).

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

Sincerely,

Jillian Wong

Jillian Wong, Ph.D.
Planning and Rules Manager
Planning, Rule Development & Area Sources

Attachment

JW:GM

RVC160830-10
Control Number

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

Mitigation Measures for Operational Air Quality Impacts (Mobile Sources)

1. Since the proposed project will exceed the recommended SCAQMD significance threshold for NOx during operations, mainly from mobile sources, the SCAQMD staff recommends the following additional mitigation measures to further reduce those significant project impacts:

   Recommended Additions:

   a) Limit the daily number of trucks allowed at the facility to levels analyzed in the Final EIR. If higher daily truck volumes are anticipated to visit the site, the Lead Agency should commit to re-evaluating the project through CEQA prior to allowing this higher activity level.

   b) Require the use of 2010 compliant diesel trucks, or alternatively fueled, delivery trucks (e.g., food, retail and vendor supply delivery trucks) at commercial/retail sites upon project build-out. Other measures such as incentives, phase-in schedules for clean trucks, etc., should also be considered.

   c) Because the proposed Project generates significant regional emissions, the Lead Agency should require mitigation that requires accelerated phase-in of the cleanest truck technologies that are available. For example, natural gas trucks, certified below the current emissions standards can provide a substantial reduction in emissions and therefore a reduction in health risks, and may be more financially feasible today due to reduced fuel costs compared to diesel. In the Final CEQA document, the Lead Agency should require a phase-in schedule for these cleaner operating trucks to reduce project impacts. SCAQMD staff is available to discuss the availability of current and upcoming truck technologies and incentive programs with the Lead Agency and project applicant.

   d) At a minimum, require upon occupancy that do not already operate 2007 and newer trucks to apply in good faith for funding to replace/retrofit their trucks, such as Carl Moyer, VIP, Prop 1B, or other similar funds. Should funds be awarded, the occupant should also be required to accept and use them.

   e) Similar to the City of Los Angeles requirements for all new projects, the SCAQMD staff recommends that the Lead Agency require at least 5% of all vehicle parking spaces (including for trucks) shall include EV charging stations[2] to encourage the use of low or zero-emission vehicles. Prior to building permit issuance, the City shall verify building plans contain electric charging stations.

AQMD-2

[2] http://ladbs.org/LADBSWeb/LADBS_Forms/Publications/LAGreenBuildingCodeOrdinance.pdf

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

f) Design the site such that any check-in point for trucks is well inside the facility to ensure that there are no trucks queuing outside of the facility.

g) Have truck routes clearly marked with trailblazer signs, so trucks will not enter residential areas or restricted routes.

h) Provide food options, fueling, truck repair and or convenience stores on-site to minimize the need for trucks to traverse through residential neighborhoods.

i) Improve traffic flow by signal synchronization.

AQMD-
(cont'd

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Letter Dated September 20, 2016

Comment AQMD-1

The South Coast Air Quality Management District (SCAQMD) appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final EIR.

The Lead Agency proposes to develop an approximately 19.64-acre site for approximate 446,350 square feet of warehouse distribution and light industrial uses including 347,080 square feet of warehouse use; 89,270 square feet of manufacturing use; and 10,000 square feet allocated for offices uses. Parking for both buildings totals 589 parking stalls, 342 trailers spaces and a total of 196 loading dock doors. The proposed project is expected to generate approximately 940 total daily trips including 360 daily trucks.[1] Construction is expected to begin in January 2017 and be completed, based on market conditions, in August 2018.

The Lead Agency has determined that operating emissions primarily from mobile sources will exceed the SCAQMD recommended regional significance threshold for Oxides of Nitrogen (NOx). The SCAQMD staff therefore recommends additional measures to reduce the mobile source impacts during operations. Details are included in the attachment.

Pursuant to Public Resources Code Section 21092.5, SCAQMD staff requests that the Lead Agency provide the SCAQMD with written responses to all comments contained herein prior to the adoption of the Final EIR. The SCAQMD staff is available to work with the Lead Agency to address these issues and any other air quality questions that may arise. Please contact Gordon Mize, Air Quality Specialist CEQA Section, at (909) 396-3302, if you have any questions regarding the enclosed comments.

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Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

Response AQMD-1

Commentor summary description of the Project is materially correct.

South Coast Air Quality Management District (SCAQMD) comments provided on the Draft EIR for the proposed Indian Street Commerce Center Project are acknowledged. Responses to SCAQMD concerns regarding the operational air quality impacts are provided herein.

All comments provided by SCAQMD have been considered. Pursuant to *CEQA Guidelines* §15088 (b), written responses to SCAQMD comments will be provided to SCAQMD a minimum of 10 days prior to the Lead Agency decision(s) regarding certification of the EIR. SCAQMD contact information provided (Gordon Mize, phone: [909] 396-3302) is acknowledged.

Comment AQMD-2

Mitigation Measures for Operational Air Quality Impacts (Mobile Sources)

1. Since the proposed project will exceed the recommended SCAQMD significance threshold for NOx during operations, mainly from mobile sources, the SCAQMD staff recommends the following additional mitigation measures to further reduce those significant project impacts:

Recommended Additions:

a) Limit the daily number of trucks allowed at the facility to levels analyzed in the Final EIR. If higher daily truck volumes are anticipated to visit the site, the Lead Agency should commit to re-evaluating the project through CEQA prior to allowing this higher activity level.

b) Require the use of 2010 compliant diesel trucks, or alternatively fueled, delivery trucks (e.g., food, retail and vendor supply delivery trucks) at commercial/retail sites upon project build-out. Other measures such as incentives, phase-in schedules for clean trucks, etc., should also be considered.

c) Because the proposed Project generates significant regional emissions, the Lead Agency should require mitigation that requires accelerated phase-in of the cleanest truck technologies that are available. For example, natural gas trucks, certified below the current emissions standards can provide a substantial reduction in emissions and therefore a reduction in health risks, and may be more financially feasible today due to reduced fuel costs compared to diesel. In the Final CEQA document, the Lead Agency should require a phase-in schedule for these cleaner operating trucks to reduce project impacts. SCAQMD staff is available to discuss the availability of current and upcoming truck technologies and incentive programs with the Lead Agency and project applicant.

d) At a minimum, require upon occupancy that do not already operate 2007 and newer trucks to apply in good faith for funding to replace/retrofit their trucks, such as Carl Moyer, VIP, Prop 1 B, or other similar funds. Should funds be awarded, the occupant should also be required to accept and use them.

e) Similar to the City of Los Angeles requirements for all new projects, the SCAQMD staff recommends that the Lead Agency require at least 5% of all vehicle parking spaces (including for trucks) shall include EV charging stations to encourage the use of low or zero-emission vehicles. Prior to building permit issuance, the City shall verify building plans contain electric charging stations.

f) Design the site such that any check-in point for trucks is well inside the facility to ensure that there are no trucks queuing outside of the facility.

g) Have truck routes clearly marked with trailblazer signs, so trucks will not enter residential areas or restricted routes.

h) Provide food options, fueling, truck repair and or convenience stores on-site to minimize the need for trucks to traverse through residential neighborhoods.

i) Improve traffic flow by signal synchronization.

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Response AQMD-2

SCAQMD recommends additional measures to be included in the EIR as mitigation for the Project's operational-source air emissions impacts. The City has considered the additional mitigation measures recommended by the commentor, and presents responses in the following table. Results and conclusions of the EIR are not affected.

Recommended Measure	Remarks
Limit the daily number of trucks allowed at the facility to levels analyzed in the Final EIR. If higher daily truck volumes are anticipated to visit the site, the Lead Agency should commit to re-evaluating the project through CEQA prior to allowing this higher activity level.	The Project proposes a design to accommodate high-cube warehouse and light industrial building occupants. CEQA requires that an EIR evaluate the proposed Project based on reasonable assumptions and foreseeable actions. The number of truck trips that the Project is expected to generate is based on Institute of Transportation Engineers (ITE) and SCAQMD recommendations, which rely on surveyed data from other high cube warehouse and light industrial buildings, which is reasonable and reliable information. The commentor does not present any evidence that truck trips associated with the Project would be greater than disclosed in the Draft EIR. Instituting a cap on the number of trucks that can access the Project's building is not required under CEQA, nor would it be feasible for the City of Moreno Valley to monitor and enforce such a requirement. The Draft EIR has made reasonable assumptions based on substantial evidence by using ITE and SCAQMD recommendations based on the Project's design and expected occupant type. Additionally, imposing a trip cap would not avoid or substantially lessen the estimated NOx emissions; in fact, if trucks could be turned away for exceeding a trip cap, this measure could result in the unintended adverse effect of resulting in trucks queuing on surrounding streets in the vicinity of the project until midnight of the following day.

Recommended Measure	Remarks
	Moreover, in practical terms the commentor's suggested measure already exists as a matter of law as any substantive revisions or changes to any aspect of the Project evaluated in the EIR (including, but not limited to, increased or otherwise altered truck trip generation) would be subject to additional environmental analysis. This alone obviates the need for the measure offered by the commentor. For these reasons, the recommended measure is not included as mitigation.
Require the use of 2010 compliant diesel trucks, or alternatively fueled, delivery trucks (e.g., food, retail and vendor supply delivery trucks) at commercial/retail sites upon project build-out. Other measures such as incentives, phase-in schedules for clean trucks, etc., should also be considered. Because the proposed Project generates significant regional emissions, the Lead Agency should require mitigation that requires accelerated phase-in of the cleanest truck technologies that are available. For example, natural gas trucks, certified below the current emissions standards can provide a substantial reduction in emissions and therefore a reduction in health risks, and may be more financially feasible today due to reduced fuel costs compared to diesel. In the Final CEQA document, the Lead Agency should require a phase-in schedule for these cleaner operating trucks to reduce project impacts. SCAQMD staff is available to discuss the availability of current and upcoming truck technologies and incentive programs with the Lead Agency and project applicant. At a minimum, require upon occupancy that do not already operate 2007 and newer trucks to apply in good faith for funding to replace/retrofit their trucks, such as Carl Moyer, VIP, Prop 1 B, or other similar funds. Should funds be awarded, the occupant should also be required to accept and use them.	With respect to diesel emissions, the Lead Agency generally supports the use of alternative-source fuels. The Project would not however result in potentially significant health risks impacts related to diesel emissions or diesel-powered trucks. There is no nexus between the Project diesel emissions and suggested mitigation. With regard to vehicle-source regional NOx emissions impacts, as noted herein, neither the lead Agency or the Applicant can meaningfully control vehicular-source NOx emissions, and reductions of these emissions in general has been realized through regulatory actions and as the result of the transition to newer and cleaner fuels and fuel-efficient technologies. In combination, regulatory actions and transition to newer/cleaner fuels and energy-efficient technologies are expected to result in significant, Basin-wide reductions in PM_{10}/$PM_{2.5}$, NOx, VOC, CO emissions. With respect to the commentor's proposed imposition of 2010 model year emissions standards, the Lead Agency supports compliance with incumbent vehicle emissions standards, and encourages voluntary use of vehicles that surpass incumbent emissions standards. That said, under the current Truck and Bus Regulation (CARB, 2008) all diesel truck fleets operating in California are required to adhere to an aggressive schedule for upgrading and replacing heavy-duty truck

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Recommended Measure	Remarks
	engines. Pursuant to the Regulation, older, heavier trucks, i.e., those with pre-2000 year engines and a gross vehicle weight rating (GVWR) greater than 26,000 pounds are already required to have installed a PM filter and must be replaced with a 2010 engine within the timeframe 2015 - 2020, depending on the model year. As of 2015 under the Regulation, heavier pre-1994 trucks must be upgraded to 2010 engines and newer trucks are thereafter required to be replaced over the next eight years. Older, more polluting trucks are required to be replaced first, while trucks that already have relatively clean 2007-2009 engines are not required to be replaced until 2023. Lighter trucks (those with a GVWR of 14,001 to 26,000 pounds) must adhere to a similar schedule, and will all be replaced by 2020. Further, nearly all trucks that are not required under the Truck and Bus Regulation to be replaced by 2015 are required to be upgraded with a PM filter by that date. Therefore, most heavy-duty trucks entering the Project site already meet or exceed 2010 emission standards, or would do so in the near-term. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. In the context of the Truck and Bus Regulation, the only effect of the commentor's proposed mitigation measure would be to require the upgrade or replacement of newer, relatively cleaner trucks accessing the Project site a few years sooner prior than would be mandated by the Truck and Bus Regulation. As such, the measure offered by the commentor would at best expedite the reduction of Project truck emissions, yielding a nominal reduction in NOx over the approximately 5 years between the Project Opening Year (2018) and full implementation of the Truck and Bus Regulation in 2023. This marginal reduction in emissions that may result from the

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Recommended Measure	Remarks
	commentor's proposed mitigation measure would not avoid nor significantly reduce Project operational-source NOx emissions, and Project NOx emissions would remain significant and avoidable. Further, the commentor's proposed measure would not demonstrably reduce Basin-wide NOx emissions. That is, just because the measure would prohibit older trucks access to the Project site, by no means does the measure preclude their operation elsewhere within the Basin. The measure would in effect direct these older vehicles and associated emission to numerous other warehouses at other Basin locales, with no net reduction in Basin-wide NOx emissions. Federal and State agencies are charged with regulating and enforcing vehicle emission standards. It is not feasible for the City of Moreno Valley staff to effectively enforce a prohibition on trucks from entering the property that are otherwise permitted to operate in California and access other properties in the city, region, and state. Even if the City were to apply such a restriction, it would merely cause warehouse operators using older truck fleets to locate in another area within in the South Coast Air Basin where the restriction does not apply, thereby resulting in no improvement to regional air quality. Furthermore, if a truck that did not meet this requirement were to attempt access to the site and be denied, there would be more idling emissions and travel emissions associated with that truck. Suggesting that the City of Moreno Valley require more stringent controls than either the federal government or State of California is neither practical nor feasible for the City to effectively enforce. For the reasons listed above, the commentor's proposed measures are not incorporated in the EIR.

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Recommended Measure	Remarks
	Please refer also to Response JS-4.
Similar to the City of Los Angeles requirements for all new projects, the SCAQMD staff recommends that the Lead Agency require at least 5% of all vehicle parking spaces (including for trucks) shall include EV charging stations to encourage the use of low or zero-emission vehicles. Prior to building permit issuance, the City shall verify building plans contain electric charging stations.	The comment suggests that trucks that run at least partially on electricity are projected to become available "during the life of the project." It is unclear whether this statement refers to the life of the RTP or the life of the proposed Project. Nonetheless, given that electric vehicles are still an emerging technology, charging stations are assumed to "fill in the gap" so that electric vehicles, which still tend to have short distance ranges, can refuel and would not be stranded in areas where recharging facilities are scarce. Providing more extensive facilities, especially with respect to trucks, based on the assumption that commercial electrical trucks will be in common use in the future, is very speculative. Such an approach presupposes that the electrical recharging infrastructure can be provided now when the future technology for commercial electrical trucks is not currently available. It is possible that electrical infrastructure installed now would not support future, presently unknown, technology. Further, this comment pre-supposes that, in a future where electrical vehicles are in widespread use, electrical refueling would be provided at logistics and light industrial facilities and presumably other private businesses, in contrast to the way fuel is now dispensed, via gas stations where fuel is paid for "at the pump." In fact, some gasoline service stations now provide electric charging stations in addition to gasoline fuel points. It is just as likely, and arguably more likely, that electricity for vehicle charging would be supplied and dispensed in the future in a similar manner as gasoline is currently provided. Additionally, installing infrastructure alone to support electric vehicle charging stations would

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Recommended Measure	Remarks
	not result in any demonstrable, quantifiable reduction in NOx emissions and would therefore not avoid or substantially lessen the Project's significant air quality impact. The commentor's reference to the City of Los Angeles requirement that 5 percent of all vehicle parking spaces (including trucks) include charging stations is not comparable to the proposed Project. Trucks that access the Project site are expected to spend only a minimal amount of time on-site (enough time to unload/load their trailer and complete any necessary administrative tasks). Based on expected building occupant types, is not anticipated that trucks will spend enough time on-site to connect to a charging station and recharge a battery. This measure is therefore not included as mitigation. Note: EV charging spaces to be provided per Calgreen 2016.
Design the site such that any check-in point for trucks is well inside the facility to ensure that there are no trucks queuing outside of the facility.	The Project has been designed with adequate stacking at the entry point of the facility to assure that trucks do not queue on public streets.
Have truck routes clearly marked with trailblazer signs, so trucks will not enter residential areas or restricted routes. Provide food options, fueling, truck repair and or convenience stores on-site to minimize the need for trucks to traverse through residential neighborhoods.	Off-site truck traffic would be restricted to designated truck routes within the City, thereby minimizing the potential for truck travel through residential neighborhoods. Moreover, there is no nexus between the recommended measures and the Project's potential operational-source air quality impacts. That is, the Project would not result in any significant localized impacts due to truck traffic. It was also suggested that the project include the onsite provision of "food options" and other services (fueling, truck repair and/or convenience stores) in order to minimize trucks traversing through residential neighborhoods. However, this measure would primarily relate to health risks associated with diesel particulates (for which the project would have a less than significant impact), and would not serve to meaningfully reduce the project's NO_x emissions. In addition, food and fuel services

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Recommended Measure	Remarks
	are available and accessible to the project site without the need to traverse residential neighborhoods. Given this, there is no basis to find that the provision of on-site services would reduce or avoid a significant and unavoidable impact of the project. The recommended measures are not required and would not demonstrably reduce any of the Project's potentially significant impacts. These measures are therefore not included as mitigation.
Improve traffic flow by signal synchronization.	The Lead Agency, through its periodic review of area traffic conditions and through implementation of capital improvements programs already ensures that traffic signal synchronization responds to City traffic flow dynamics. Signal synchronization that may be required of the Project would be implemented through the Project Conditions of Approval. The Lead Agency as a matter of course monitors and reviews area traffic flows and modifies areawide traffic signal synchronization accordingly. City Conditions of Approval for new developments respond to any signal synchronization requirements not otherwise addressed. The recommended measure is already implemented by the Lead Agency through other means and is therefore not included as mitigation.

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EASTERN MUNICIPAL WATER DISTRICT

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September 29, 2016

Ms. Julia Descoteaux
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: **NOA – Indian Street Commerce Center (Vogel Industrial Project, PPI 2016-289)**
Location: Approximately ½ mile westerly of Perris Blvd., bounded by Indian Street to the east, and Grove View Road (alignment) at northerly boundary

Thank you for the opportunity to review the above-referenced project. The subject project requires either water, recycled water and/or sewer service from EMWD. The detail of the proposed development requires a submittal to EMWD by the project proponent. Upon receipt of submittal, EMWD will review further and provide requirements for obtaining service(s) which include but not limited to:

1. Discuss potential candidacy for recycled water service
2. Review of the project within the context of existing infrastructure
3. Evaluation of the project's preliminary design and points of connections
4. Formal Application for Service detailing applicable fees and deposits to proceed with EMWD approved service connections.

EMWD-

To begin the submittal process the project proponent may contact EMWD's New Business Department at:

Eastern Municipal Water District
New Business Department
2270 Trumble Rd
Perris CA 92570
(951) 928-3777 Extension 2081

Board of Directors
Randy A. Record, *President* David J. Slawson, *Vice President* Joseph J. Kuebler CPA, *Treasurer* Philip E. Paule Ronald W. Sullivan

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

Sincerely,

Elena Navarre

Elena Navarre
Eastern Municipal Water District
New Business Department
Eastern Muncipal Water District

/EMN

Attachment

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Eastern Municipal Water District
2270 Trumble Road
Perris, CA 92572

Letter Dated September 29, 2016

Comment EMWD-1

Thank you for the opportunity to review the above-referenced project. The subject project requires either water, recycled water and/or sewer service from EMWD. The detail of the proposed development requires a submittal to EMWD by the project proponent. Upon receipt of submittal, EMWD will review further and provide requirements for obtaining service(s) which include but not limited to:

1. *Discuss potential candidacy for recycled water service*
2. *Review of the project within the context of existing infrastructure*
3. *Evaluation of the project's preliminary design and points of connections*
4. *Formal Application for Service detailing applicable fees and deposits to proceed with EMWD approved service connections.*

To begin the submittal process the project proponent may contact EMWD's New Business Department at:

Eastern Municipal Water District
New Business Department
2270 Trumble Rd
Perris CA 92570
(951) 928-3777 Extension 2081

Response EMWD-1

The commentor lists EMWD submittal requirements for provision of service(s).No comments on the Draft EIR are provided. EMWD documentation and submittal process requirements are acknowledged. EMWD contact information is noted. Results and conclusions of the EIR are not affected.

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

Community Development Department
Planning Division
14177 Frederick Street
P. O. Box 88005
Moreno Valley CA 92552-0805
Telephone: 951.413-3206
FAX: 951.413-3210

To: Julia Descoteaux
Liaison for the Environmental and Historical Preservation Board
City of Moreno Valley Planning Division

Dear Ms. Descoteaux,

The Environmental and Historical Preservation Board met on September 12, 2016 to discuss the Draft Environmental Report for the Indian Street Commerce Center project (P16-003). Based on the discussion, the Board determined the potential environmental impacts of the project were adequately addressed in the document. The Air Quality impacts (as addressed in the document) will be below significant levels and are not going to cause any violations to National Ambient Air Quality Standards (NAAQS) and/or the California Ambient Air Quality Standards (CAAQS). EHPB-1

Respectfully,

Keith Mullins Date: 10/13/16
Chair
Environmental and Historical Preservation Board

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Environmental and Historical Preservation Board
14177 Frederick Street
Moreno Valley, CA 92552

Letter Dated October 13, 2016

Comment EHPB-1

The Environmental and Historical Preservation Board met on September 12, 2016 to discuss the Draft Environmental Report for the Indian Street Commerce Center project (P16-003). Based on the discussion, the Board determined the potential environmental impacts of the project were adequately addressed in the document. The Air Quality impacts (as addressed in the document) will be below significant levels and are not going to cause any violations to National Ambient Air Quality Standards (NAAQS) and/or the California Ambient Air Quality Standards (CAAQS).

Response EHPB-1

The commentor states generally that the EIR analysis of potential environmental impacts is determined to be adequate; and specifically concurs with the EIR findings that the Project would not cause or result in any NAAQS or CAAQS violations. The Lead Agency appreciates the commentor's response and participation in review of the Project specifically and in the CEQA process generally. Results and conclusions of the EIR are not affected.

Board of Education
Jesús M. Holguín, President
Denise Fleming, Ed.D., Vice President
Cleveland Johnson, Clerk
Gary E. Baugh, Ed.S.
Patrick W. Kelleher

Superintendent of Schools
Judy D. White, Ed.D.

Moreno Valley Unified School District
25634 Alessandro Boulevard
Moreno Valley, California 92553
951-571-7500
www.mvusd.net

The mission of Moreno Valley Unified School District is to ensure all students graduate high school prepared to successfully enter into higher education and/or pursue a viable career path.

September 27, 2016

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SEP 2 9 2016
CITY OF MORENO VALLEY
Planning Division

City of Moreno Valley
Community Development Department
14177 Frederick Street
Moreno Valley, CA 92553

Attn: Julia Descoteaux, Associate Planner

SUBJECT: Response to DEIR P16-003, Indian Street Commerce Center

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report for the Indian Street Commerce Center project, P16-003.

The Moreno Valley Unified School District, Facilities and Planning Department, has reviewed this document.

We understand that this proposed project would result in certain significant but unavoidable adverse impacts to Air Quality, Greenhouse Gas Emissions, and Transportation/Traffic as described with the DEIR.

With that in mind, we have no comments to submit on this DEIR; specifically as it does not fall within the Moreno Valley Unified School District, and this project does not directly impact any of our schools due to the distance from the project and any of our nearest schools.

Thank you and best regards,

Alice Grundman

Alice Grundman
Interim Director
Facilities Planning & Development
MORENO VALLEY UNIFIED SCHOOL DISTRICT
23301 Dracaea Avenue
Moreno Valley, CA 92553
agrundman@mvusd.net

/cla

MVUSD-

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

Moreno Valley Unified School District
25634 Alessandro Boulevard
Moreno Valley, CA 92553

Letter Dated September 27, 2016

Comment MVUSD-1

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report for the Indian Street Commerce Center project, P16-003.

The Moreno Valley Unified School District, Facilities and Planning Department, has reviewed this document.

We understand that this proposed project would result in certain significant but unavoidable adverse impacts to Air Quality, Greenhouse Gas Emissions, and Transportation/Traffic as described with the DEIR.

With that in mind, we have no comments to submit on this DEIR; specifically as it does not fall within the Moreno Valley Unified School District, and this project does not directly impact any of our schools due to the distance from the project and any of our nearest schools.

Response MVUSD-1

The commentor summarizes significant impacts identified and disclosed in the EIR. Should the Project be approved, the Lead Agency is required to, and would, adopt a Statement of Overriding Considerations acknowledging the Project's significant and unavoidable impacts. The Lead Agency appreciates the commentor's response and participation in review of the Project specifically and in the CEQA process generally. Results and conclusions of the EIR are not affected.

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

PECHANGA CULTURAL RESOURCES
Temecula Band of Luiseño Mission Indians

Post Office. Box 2183 • Temecula, CA 92593
Telephone (951) 308-9295 • Fax (951) 506-9491

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Anna Hoover

October 10, 2016

VIA E-MAIL and USPS

Ms. Julia Descoteaux
Associate Planner
City of Moreno Valley, Planning Division
14177 Frederick Street
P.O Box 88005
Moreno Valley, CA 92552-0805

Re: Pechanga Tribe Comments on the Notice of Availability for the Draft Environmental Impact Report, Indian Street Commerce Center Project, PA16-0002, P16-003

Dear Ms. Descoteaux:

This comment letter is written on behalf of the Pechanga Band of Luiseño Indians (hereinafter, "the Tribe"), a federally recognized Indian tribe and sovereign government. The Tribe formally requests, pursuant to Public Resources Code §21092.2, to be notified and involved in the entire CEQA environmental review process for the duration of the above referenced project (the "Project"). If you have not done so already, please add the Tribe to your distribution list(s) for public notices and circulation of all documents, including environmental review documents, archaeological reports, and all documents pertaining to this Project. The Tribe further requests to be directly notified of all public hearings and scheduled approvals concerning this Project. Please also incorporate these comments into the record of approval for this Project. PCR-1

The Tribe is disconcerted that the DEIR fails to document the AB 52 consultation that occurred between Pechanga and the City during preparation of the environmental documents. The Tribe submitted a formal request to consult under AB 52 February 22, 2016 and submitted further comments on the Notice of Preparation in April 2016. Formal consultation with the City also occurred on April 25, 2016 and through email/telephone communication thereafter.

During the consultation, Pechanga informed the City that the Project is located within a Traditional Cultural Landscape (TCL), a type of Tribal Cultural Resource (TCR). Although the Project development will impact a TCR, Pechanga did not request formal mitigation measures to

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address the cumulative and potential direct impacts this Project may have; thus, conditions of approval were requested that would include both archaeological and Native American monitoring as well as the standard City Inadvertent Finds language. None of our requests were incorporated in the DEIR. Additional comments are below.

PCR-1 (cont'd)

PECHANGA CULTURAL AFFILIATION TO PROJECT AREA

The Pechanga Tribe asserts that the Project area is part of Luiseño, and therefore the Tribe's, aboriginal territory as evidenced by the existence of Luiseño place names, *tóota yixélval* (rock art, pictographs, petroglyphs), traditional cultural landscapes (TCLs), and other tribal cultural resources (TCRs) in the vicinity of the Project. This culturally sensitive area is affiliated with the Pechanga Band of Luiseño Indians because of the Tribe's cultural ties to this area as well as the close proximity of the Project to the Tribal reservation lands.

The Pechanga Tribe has a specific legal and cultural interest in this Project as the Tribe is culturally affiliated with the geographic area that comprises the Project property and is the closest affiliated tribe to the Property. The Tribe has been named the Most Likely Descendent (Cal. Pub. Res. C. §5097.98) on Projects in the nearby vicinity of the proposed Project and has specific knowledge of cultural resources and sacred places near the proposed Project which we have shared with the City on previous occasions on this and other projects.

PCR-2

The Tribe welcomes the opportunity to meet with the City to further explain and provide documentation concerning our specific cultural affiliation to lands within your jurisdiction, if so desired.

REQUESTED TRIBAL INVOLVEMENT AND MITIGATION

The Pechanga Band is not opposed to this Project; however, we are opposed to any direct, indirect and cumulative impacts this Project may have to tribal cultural resources. The Tribe's primary concerns stem from the Project's proposed impacts on Native American cultural resources. The Tribe is concerned about both the protection of unique and irreplaceable cultural resources, such as Luiseño village sites, sacred sites and archaeological items which would be displaced by ground disturbing work on the Project, and on the proper and lawful treatment of cultural items, Native American human remains and sacred items likely to be discovered in the course of the work.

PCR-3

The proposed Project is located in a highly sensitive region of Luiseño territory – a traditional cultural landscape, and the Tribe believes that the possibility for recovering subsurface resources during ground-disturbing activities is high. The Tribe has over thirty-five (35) years of experience in working with various types of construction projects throughout its territory. The combination of this knowledge and experience, along with the knowledge of the culturally-sensitive areas and oral tradition, is what the Tribe relies on to make fairly accurate predictions regarding the likelihood of subsurface resources in a particular location.

As outlined above, the DEIR fails to document the AB 52 consultation that occurred between the City and the Pechanga Tribe. In those consultations, a traditional cultural landscape, a type of tribal cultural resource, was identified. Pechanga and the City determined that, as a result of the archaeological study, no physical resources were identified on the surface of the Project, within its boundaries. Thus, the impacts to the TCL would be on a cumulative basis, unless subsurface resources were identified during earthmoving activities. The DEIR again fails to address this concern and to address the tribal values, as only a tribe can provide, mandated by AB 52.

As construction personnel are not qualified to identify archaeological artifacts or TCRs, the solitary mitigation measure 4.8.2 is not appropriate nor will it sufficiently mitigate any finds of subsurface resources to a level of below significance. Because the Project will be excavating in to native soils below the plow zone (over 18 inches), it is appropriate to have both an archaeological monitor (to address the scientific needs of CEQA) and a Pechanga Native American monitor (to identify TCRs) during all earthmoving activities. As the City completely failed to acknowledge the AB 52 consultation efforts, we request that the following language be included as both mitigation measures and conditions of approval. We request that these measures/conditions of approval be incorporated into the final EIR and any other final environmental documents approved by the City (underlines are additions, strikethroughs are deletions).

PCR-4

4.8.2 ~~If previously unidentified prehistoric/Native American resources are identified, a qualified archaeologist must be notified and, in consultation with the local Native American representative(s), be recovered and analyzed in accordance with CEQA guidelines, and curated at the University of California, Riverside, Archaeological Research Unit; the Western Center; or with the appropriate Native American repository (e.g., Pechanga facility in Temecula). In addition, an archaeological monitoring program should be initiated and continued until the archaeological consultant concludes the program is no longer necessary.~~

Archaeologist Retained/CRMP Prepared: Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a professional archaeological monitor has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities and that the monitor has the authority to temporarily halt and redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project archaeologist, with input from the Pechanga Tribe, shall prepare a Cultural Resources Monitoring Plan (CRMP) to document protocols for inadvertent finds, to determine potential protection measures from further damage and destruction for any identified archaeological resource(s)/tribal cultural resources (TCRs), outline the process for monitoring and for completion of the final Phase IV Monitoring Report. If any archaeological and/or TCRs are identified during monitoring, these will also be documented and addressed per standard archaeological protocols in the Phase IV report, with the exception of

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Resolution No. 2017 -
Date Adopted: February

human remains which will be addressed per MM 4.8.6. The Project Archaeologist shall attend the pre-grading meeting with the City and contractors to explain and coordinate the requirements of the monitoring program.

4.8.3 **Tribal Monitor Retained:** At least 30 days prior to the issuance of a grading permit the Applicant shall contact the Pechanga Band of Luiseño Indians to develop a Cultural Resources Treatment Agreement and shall provide evidence to the City of Moreno Valley that the professionally qualified Native American monitor(s) has been secured, and that the Tribe shall be allowed to monitor all mass grading and trenching activities. The Tribal representative(s) shall attend the pre-grading meeting with the City and contractors to explain and coordinate the requirements of the monitoring program.

4.8.4 **Inadvertent Finds:** If, during mass grading and trenching activities, the Archaeological or Pechanga Monitors suspect that an archaeological resource and/or TCR may have been unearthed, the monitor identifying the potential resources, in consultation with the other monitor as appropriate, shall immediately halt and redirect grading operations in a 50-foot radius around the find to allow identification and evaluation of the suspected resource. The Native American monitor(s) or appropriate representative(s) and the archaeological monitor shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. The archaeological monitor and Pechanga monitor(s) or appropriate representative(s), the Project Applicant, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). All sacred sites, should they be encountered within the project area, shall be avoided and preserved as the preferred mitigation, if feasible.

PCR-4

4.8.5 **Grading Plans:** Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

"If any suspected archaeological resources are discovered during ground-disturbing activities and the archaeological monitor or Pechanga representatives are not present, the construction supervisor is obligated to halt work in a 50-foot radius around the find and call the project archaeologist and the Pechanga representatives to the site to assess the significance of the find."

4.8.6 **Human Remains State Law:** If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the Coroner. If the Riverside County Coroner determines the remains to be Native American, the California

Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately notify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98.

4.8.7 **Final Phase IV Report:** Prior to building permit issuance, the Project archaeologist shall prepare a final Phase IV Monitoring Report as outlined in the CRMP, which shall be submitted to the City Planning Division, Pechanga Band of Luiseño Indians, and the Eastern Information Center at the University of California, Riverside. The report shall document project impacts to archaeological and tribal cultural resources, if any. All cultural material, excluding sacred, ceremonial, grave goods and human remains, collected during the grading monitoring program and from any previous archaeological studies or excavations on the project site shall be curated, as determined by the treatment plan, according to the current professional repository standards and may include the Pechanga Bands curatorial facility or the Western Science Center in Hemet, at the landowners discretion.

PCR-4 (cont'd)

The Pechanga Tribe looks forward to continuing to work together with the City of Moreno Valley in protecting the invaluable Pechanga cultural resources found in the Project area. Please contact me at 951-770-8104 or at ahoover@pechanga-nsn.gov once you have had a chance to review these comments if you have any comments or concerns. Thank you.

PCR-5

Sincerely,

Anna Hoover
Deputy THPO/Cultural Analyst

Cc Pechanga Office of the General Counsel

Pechanga Cultural Resources
P.O. Box 2183
Temecula, CA 92592

Letter Dated October 10, 2016

Comment PCR-1

This comment letter is written on behalf of the Pechanga Band of Luiseño Indians (hereinafter, "the Tribe"), a federally recognized Indian tribe and sovereign government. The Tribe formally requests, pursuant to Public Resources Code §21092.2, to be notified and involved in the entire CEQA environmental review process for the duration of the above referenced project (the "Project"). If you have not done so already, please add the Tribe to your distribution list(s) for public notices and circulation of all documents, including environmental review documents, archaeological reports, and all documents pertaining to this Project. The Tribe further requests to be directly notified of all public hearings and scheduled approvals concerning this Project. Please also incorporate these comments into the record of approval for this Project.

The Tribe is disconcerted that the DEIR fails to document the AB 52 consultation that occurred between Pechanga and the City during preparation of the environmental documents. The Tribe submitted a formal request to consult under AB 52 February 22, 2016 and submitted further comments on the Notice of Preparation in April 2016. Formal consultation with the City also occurred on April 25, 2016 and through email/telephone communication thereafter.

During the consultation, Pechanga informed the City that the Project is located within a Traditional Cultural Landscape (TCL), a type of Tribal Cultural Resource (TCR). Although the Project development will impact a TCR, Pechanga did not request formal mitigation measures to address the cumulative and potential direct impacts this Project may have; thus, conditions of approval were requested that would include both archaeological and Native American monitoring as well as the standard City Inadvertent Finds language. None of our requests were incorporated in the DEIR. Additional comments are below.

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Response PCR-1

The commentor requests, pursuant to Public Resources Code §21092.2, to be notified and involved in the entire CEQA environmental review process for the duration of the above referenced project (the "Project"). The City acknowledges the request of the Pechanga Band of Luiseno Indians for consultation, and will work with tribal representatives to this end, pursuant to all applicable regulations. Additionally, as requested, the Pechanga Band of Luiseno Indians will be added to the City's list of organizations receiving notifications of public meetings and information related to the proposed Project.

AB 52 consultation between the Tribe and the Lead Agency is acknowledged and the EIR has been amended accordingly, as presented in Section 2.0, *Revisions and Errata Corrections*. AB 52 consultation documentation is provided at Attachment A to this Final EIR.

Comment PCR-2

PECHANGA CULTURAL AFFILIATION TO PROJECT AREA

The Pechanga Tribe asserts that the Project area is part of Luiseño, and therefore the Tribe's, aboriginal territory as evidenced by the existence of Luiseño place names, tóota yixélval (rock art, pictographs, petroglyphs), traditional cultural landscapes (TCLs), and other tribal cultural resources (TCRs) in the vicinity of the Project. This culturally sensitive area is affiliated with the Pechanga Band of Luiseño Indians because of the Tribe's cultural ties to this area as well as the close proximity of the Project to the Tribal reservation lands.

The Pechanga Tribe has a specific legal and cultural interest in this Project as the Tribe is culturally affiliated with the geographic area that comprises the Project property and is the closest affiliated tribe to the Property. The Tribe has been named the Most Likely Descendent (Cal. Pub. Res. C. §5097.98) on Projects in the nearby vicinity of the proposed Project and has specific knowledge of cultural resources and sacred places near the proposed Project which we have shared with the City on previous occasions on this and other projects.

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The Tribe welcomes the opportunity to meet with the City to further explain and provide documentation concerning our specific cultural affiliation to lands within your jurisdiction, if so desired.

Response PCR-2

The commentor cites affiliation of the Project site with the Pechanga Band of Luiseño Indians (Tribe) because of the Tribe's cultural ties to this area as well as the proximity of the Project site to the Tribal reservation lands. The commentor further notes the Tribe's legal and cultural interest in the Project based on the Tribe's affiliation with the Project site and surrounding geographic area. Tribe affiliation with the Project site and Tribe legal and cultural interest in the Project based on Tribal affiliations are recognized. Results and conclusions of the EIR are not affected.

Comment PCR-3

REQUESTED TRIBAL INVOLVEMENT AND MITIGATION

The Pechanga Band is not opposed to this Project; however, we are opposed to any direct, indirect and cumulative impacts this Project may have to tribal cultural resources. The Tribe's primary concerns stem from the Project's proposed impacts on Native American cultural resources. The Tribe is concerned about both the protection of unique and irreplaceable cultural resources, such as Luiseño village sites, sacred sites and archaeological items which would be displaced by ground disturbing work on the Project, and on the proper and lawful treatment of cultural items, Native American human remains and sacred items likely to be discovered in the course of the work.

The proposed Project is located in a highly sensitive region of Luiseño territory – a traditional cultural landscape, and the Tribe believes that the possibility for recovering subsurface resources during ground-disturbing activities is high. The Tribe has over thirty-five (35) years of experience in working with various types of construction projects throughout its territory. The combination of this knowledge and experience, along with the knowledge of the culturally-sensitive areas and oral tradition, is what the Tribe relies on to make fairly accurate predictions regarding the likelihood of subsurface resources in a particular location.

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Response PCR-3

The commentor states no opposition to the Project, but expresses concerns regarding potential impacts to Native American cultural resources. The commentor summarizes the Tribe's qualifying expertise based on general knowledge and experience with the Project area, and knowledge of culturally-sensitive areas and oral tradition. Commentor concerns regarding potential impacts to Native American cultural resources, and the Tribe's expertise in anticipating the potential presence of such resources and their identification is acknowledged. Results and conclusions of the EIR are not affected.

Comment PCR-4

As outlined above, the DEIR fails to document the AB 52 consultation that occurred between the City and the Pechanga Tribe. In those consultations, a traditional cultural landscape, a type of tribal cultural resource, was identified. Pechanga and the City determined that, as a result of the archaeological study, no physical resources were identified on the surface of the Project, within its boundaries. Thus, the impacts to the TCL would be on a cumulative basis, unless subsurface resources were identified during earthmoving activities. The DEIR again fails to address this concern and to address the tribal values, as only a tribe can provide, mandated by AB 52.

As construction personnel are not qualified to identify archaeological artifacts or TCRs, the solitary mitigation measure 4.8.2 is not appropriate nor will it sufficiently mitigate any finds of subsurface resources to a level of below significance. Because the Project will be excavating in to native soils below the plow zone (over 18 inches), it is appropriate to have both an archaeological monitor (to address the scientific needs of CEQA) and a Pechanga Native American monitor (to identify TCRs) during all earthmoving activities. As the City completely failed to acknowledge the AB 52 consultation efforts, we request that the following language be included as both mitigation measures and conditions of approval. We request that these measures/conditions of approval be incorporated into the final EIR and any other final environmental documents approved by the City (underlines are additions, strikethroughs are deletions).

4.8.2 ~~*If previously unidentified prehistoric/Native American resources are identified, a qualified archaeologist must be notified and, in consultation with the local Native American*~~

~~*representative(s), be recovered and analyzed in accordance with CEQA guidelines, and curated at the University of California, Riverside, Archaeological Research Unit; the Western Center; or with the appropriate Native American repository (e.g., Pechanga facility in Temecula). In addition, an archaeological monitoring program should be initiated and continued until the archaeological consultant concludes the program is no longer necessary.*~~

Archaeologist Retained/CRMP Prepared: *Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a professional archaeological monitor has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities and that the monitor has the authority to temporarily halt and redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project archaeologist, with input from the Pechanga Tribe, shall prepare a Cultural Resources Monitoring Plan (CRMP) to document protocols for inadvertent finds, to determine potential protection measures from further damage and destruction for any identified archaeological resource(s)/tribal cultural resources (TCRs), outline the process for monitoring and for completion of the final Phase IV Monitoring Report. If any archaeological and/or TCRs are identified during monitoring, these will also be documented and addressed per standard archaeological protocols in the Phase IV report, with the exception of human remains which will be addressed per MM 4.8.6. The Project Archaeologist shall attend the pre-grading meeting with the City and contractors to explain and coordinate the requirements of the monitoring program.*

4.8.3 ***Tribal Monitor Retained:*** *At least 30 days prior to the issuance of a grading permit the Applicant shall contact the Pechanga Band of Luiseño Indians to develop a Cultural Resources Treatment Agreement and shall provide evidence to the City of Moreno Valley that the professionally qualified Native American monitor(s) has been secured, and that the Tribe shall be allowed to monitor all mass grading and trenching activities. The Tribal representative(s) shall attend the pre-grading meeting with the City and contractors to explain and coordinate the requirements of the monitoring program.*

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4.8.4 ***Inadvertent Finds:*** *If during mass grading and trenching activities, the Archaeological or Pechanga Monitors suspect that an archaeological resource and/or TCR may have been unearthed, the monitor identifying the potential resources, in consultation with the other monitor as appropriate, shall immediately halt and redirect grading operations in a 50-foot radius around the find to allow identification and evaluation of the suspected resource. The Native American monitor(s) or appropriate representative(s) and the archaeological monitor shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. The archaeological monitor and Pechanga monitor(s) or appropriate representative(s), the Project Applicant, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). All sacred sites, should they be encountered within the project area, shall be avoided and preserved as the preferred mitigation, if feasible.*

4.8.5 ***Grading Plans:*** *Prior to grading permit issuance. the City shall verify that the following note is included on the Grading Plan:*

"If any suspected archaeological resources are discovered during ground-disturbing activities and the archaeological monitor or Pechanga representatives are not present, the construction supervisor is obligated to halt work in a 50-foot radius around the find and call the project archaeologist and the Pechanga representatives to the site to assess the significance of the find."

4.8.6 ***Human Remains State Law:*** *If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the Coroner. If the Riverside County Coroner determines the remains to be Native American. the California Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately notify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98.*

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4.8.7 ***Final Phase IV Report:*** *Prior to building permit issuance. the Project archaeologist shall prepare a final Phase IV Monitoring Report as outlined in the CRMP, which shall be submitted to the City Planning Division, Pechanga Band of Luiseño Indians, and the Eastern Information Center at the University of California, Riverside. The report shall document project impacts to archaeological and tribal cultural resources, if any. All cultural material, excluding sacred, ceremonial, grave goods and human remains, collected during the grading monitoring program and from any previous archaeological studies or excavations on the project site shall be curated, as determined by the treatment plan, according to the current professional repository standards and may include the Pechanga Bands curatorial facility or the Western Science Center in Hemet at the landowners discretion.*

Response PCR-4

The commentor notes AB 52 consultation that has occurred between the Tribe and the Lead Agency. The Draft EIR is amended to note AB 52 consultation between the Tribe and the Lead Agency and AB 52 consultation documentation is attached to this Final EIR (please refer also to Response PCR-1). The commentor requests alternative Mitigation to address the Tribe's concerns regarding potential impacts to Cultural Resources and Tribal Cultural Resources that may result from the Project. The EIR is amending accordingly to include the commentor's suggested Mitigation Measures, as presented in Final EIR Sections 2.0, *Revisions and Errata Corrections* and 4.0, *Mitigation Monitoring Plan*. With application of EIR Mitigation Measures 4.8.2 through 4.8.7 revised pursuant to the commentor's requests, potential impacts to Cultural Resources and Tribal Cultural Resources would be less-than-significant.

Comment PCR-5

The Pechanga Tribe looks forward to continuing to work together with the City of Moreno Valley in protecting the invaluable Pechanga cultural resources found in the Project area. Please contact me at 951-770-8104 or at ahoover@pechanga-nsn.gov once you have had a chance to review these comments if you have any comments or concerns. Thank you.

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Response PCR-5

The Lead Agency appreciates the commentor's response and participation in review of the Project specifically and in the CEQA process generally. Commentor contact information is noted.

Johnson & Sedlack
ATTORNEYS at LAW

Raymond W. Johnson, Esq., AICP
Carl T. Sedlack, Esq., Retired
Abigail A. Smith, Esq.
Kimberly Foy, Esq.
Kendall Holbrook, Esq.

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October 10, 2016

Julia Descoteaux
Associate Planner
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552
E-Mail: juliad@moval.org

VIA US MAIL AND E-MAIL

RE: Comments on Draft Environmental Impact Report for Indian Street Commerce Center Project (SCH No. 2016031036) (Assessor's Parcel Numbers 316-210-019; 316-210-020; 316-210-057; and 316-210-077)

Greetings:

On behalf of the Sierra Club and Residents for a Livable Moreno Valley, I hereby submit these comments on the Draft Environmental Impact Report (EIR) for the Indian Street Commerce Center, Environmental Impact Report Case #P16-003 (SCH No. 2016031036).[1]

PROJECT DESCRIPTION AND SUMMARY

The Project proposes development of 446,350 square feet of light industrial uses on a 19.64-acre site. As proposed, 347,080 square feet would be dedicated for distribution warehouse uses, 89,270 square feet would be dedicated to manufacturing, and 10,000 square feet would be dedicated for office uses. The Project would include approximately 35 loading dock doors along the southerly portion of the warehouse. Access to the Project site would be from two driveways on Indian Street along the eastern side of the Project site. Driveway 1 would provide access for passenger vehicles, while Driveway 2 would provide access to trucks.

JS-1

The site is presently vacant and undeveloped. The site is located in the southern portion of the City approximately one-half mile west of Perris Boulevard and is bounded by Indian Street to the east and Grove View Road (alignment) to the north. March Air Reserve Base is located approximately one-third mile west of the Project site.

[1] In order to conserve paper, the citations herein are only provided electronically, unless otherwise noted. Please include the documents cited in your review of these comments as if they were attached. If any hyperlink and/or webpage does not function properly, please contact Johnson & Sedlack and we will be happy to provide you with a hard copy of the document.

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Having reviewed the Draft EIR, we have the following comments, concerns, and recommendations: JS-1 cont

GENERAL COMMENTS

The California Environmental Quality Act ("CEQA") was adopted as a disclosure and transparency document. The theory is that by providing a document that adequately describes the environmental consequences of a project to decision makers and the public, the decision makers will make a rational decision based upon the true environmental consequences of the project and if they do not, the electorate can hold them accountable for their decisions. The core of this statutory structure is the adequacy of the document as an informational document.

The EIR truck trip distribution is unsupported, and Project impacts to traffic and air quality would be potentially more significant if revised to reflect an accurate trip distribution. The EIR should be revised and recirculated using the EIR assumption regarding trip distribution for the Traffic Impact Analysis.

Several potentially significant impacts are omitted from full evaluation in the EIR including, impacts to/from geology/soils and utilities/service system. The EIR should be revised to evaluate these impacts. The EIR also fails to adequately evaluate and disclose impacts to/from, but not limited to, air quality, health risks, global climate change and greenhouse gas emissions, and transportation/traffic. (Public Resources Code § 21002.1(a), (e); State CEQA Guidelines § 15128, 15126, 15123.) The EIR also fails to adopt all feasible mitigation to reduces the Project's significant impacts to air quality, greenhouse gas emissions, and transportation/traffic. JS-2

For these reasons and as set forth below, the EIR should be revised and recirculated, and additional mitigation incorporated into any proposed Project set out for City approval. Currently, the EIR fails as an informational document and the conclusions in the EIR are unsupported by substantial evidence.

TRANSPORTATION/TRAFFIC

The statement that regional VMT and vehicular source emissions are reduced because: "Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery vendor truck trips," is unsupported by any evidence. (DEIR p. 3-20.) The EIR should consider regional VMT for the Project based on actual trip lengths, likely with a substantial portion travelling to/from the Ports of Los Angeles and Long Beach.

Appendix B states, "The truck trip distribution patterns have been developed based on the anticipated travel patterns for the high-cube warehousing trucks." (Indian Street Commerce Center Traffic Impact Analysis, p. 59.) Project truck trip distribution is completely unsupported by anticipated travel patterns. The EIR assumes that 50% of all delivery trips will travel to and from the Project and the Port of Los Angeles/Long Beach, 10% go East on the State Route 60, 20% go to San Diego, 10% go to the Inland Empire, 5% go to Perris destinations and the remaining 5% to Moreno Valley destinations. However, the Traffic Impact Analysis anticipates 95% of the inbound truck trips to be from SR-60 to I-215 JS-3

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southbound. There is no reason for this finding when the EIR assumes 20% of trips would be traveling north from San Diego.

The evaluation of traffic impacts fails to consider impacts to alternate routes and city streets if traffic on highways becomes too congested. Intersection and roadway impacts should be re-evaluated accounting for a more reasonable number of northbound trips on I-215 and evaluating Project impacts on I-91 and I-10.

JS-3 cont

Mitigation should be adopted requiring that the Project pay into a transportation mitigation fee program for impacts to the state highway system should a fee program be adopted in the future between the City and Caltrans.

AIR QUALITY

The EIR assumes a 61-mile trip length for vehicle trips, but the EIR does not state whether this a one-way or round-trip assumption. The EIR should clarify that vehicles will travel 61-miles one-way to/from the Project site.

The EIR finds that the Project would result in significant operational impacts to NO_X. Additional mitigation measures requiring cleaner trucks for the Project should be implemented in light of these emissions. As stated by SCAG:

> The two air pollutants of greatest concern in Southern California are nitrogen oxides (NO_X) and fine particulate matter ($PM_{2.5}$). The South Coast Air Basin is classified as an extreme non-attainment area per the federal ambient ozone standard, with a required attainment date of 2023. By approximately 2031, a second, more stringent federal ozone standard must be attained. The federal Clean Air Act requires the region to demonstrate timely attainment of these standards or federal sanctions may result, such as interruption or curtailment of funding for transportation projects. To attain the federal ozone standards the region will need broad deployment of zero- and near-zero-emission transportation technologies in the 2023 to 2035 timeframe." [emphasis added] (Southern California Association of Governments' (SCAG's) 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).)

JS-4

Moreover, in the Inland Empire, increase distribution warehousing and truck travel to and from the ports of Los Angeles and Long Beach are anticipated to cause "substantial congestion problems due to the increased truck volumes on regional highways." (*Id.*) In light of the fact that this Project and cumulative Projects are anticipated to exacerbate the substantial NO_X and $PM_{2.5}$ problems in the Southern California region, a mitigation measure requiring that all trucks accessing the site meet or exceed 2010 model year emissions equivalent engine standards as currently defined in California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, should be adopted for this Project.

The following additional mitigation is also feasible and should be adopted to reduce this effect:

JS-5

1. The operator/user of any industrial uses shall become SmartWay Patner.*
2. The operator/user of any industrial uses shall meet SmartWay 1.25 ratings.*

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3. The operator/user of any industrial uses shall use only freight companies that meet SmartWay 1.25 ratings.*
4. All heavy trucks accessing the site shall conform to 2010 air quality standards or better. Results, including backup data shall be reported to the Planning Department semi-annually.*
5. The developer shall establish a diesel minimization plan (DMP) to implement the regulations of the California Air Resources Board pursuant to a faster schedule than required by law. The DMP shall require the phase in or new or retrofitted trucks so that by 2020 all rucks with GVWR greater than 16,000lbs that visit the Project site and/or are owner or operated by a Project tenant shall meet or exceed 2010 model year emissions equivalent engine standards as currently defined in California Code of Regulations Title 13, Division 3, Chapter 1, Articles 4.5, Section 2025. The DMP shall also require that all 53-foot or longer box-type trailers are equipped with low-rolling resistance tires by 2015. From the date of Project approval and for six years thereafter, Developer (and/or purchaser/tenant/owner/operator, as required by contract provision) shall maintain evidence of compliance with the DMP. Developer, tenant, or purchaser shall maintain a log including license plates, engine model year, retrofit technology if applicable, and engine family name of all trucks accessing the Project site. 10% of the truck fleets for any industrial uses shall be 2010 model compliant upon Project opening, and increase that percentage at least 20% per year until 100% of trucks operating onsite are 2010 compliant.
6. Diesel yard trucks (holsters, yard goats, etc.) shall be prohibited from use onsite.*
7. Install catalytic converters on gasoline-powered equipment.*
8. Where diesel powered vehicles are necessary, require the use of alternative diesel fuels.
9. Electrical powered equipment shall be utilized in-lieu of gasoline-powered engines where technically feasible.*
10. Utilize electrical equipment for landscape maintenance. Prohibit gas powered equipment for landscape maintenance.*
11. Utilize electric yard trucks (aka yard goats, hostlers).*
12. Plant shade trees in parking lots to provide minimum 50% cover to reduce evaporative emissions from parked vehicles.*
13. Plant at least 50% low-ozone forming potential (Low-OFP) trees and shrubs, preferably native, drought-resistant species, to meet city/county landscaping requirements.*
14. Plant Low-OFP, native, drought-resistant tree and shrub species, 20% in excess of that already required by city or county ordinance. Consider roadside, sidewalk, and driveway shading.*
15. Concrete, instead of asphalt, shall be used for parking areas. Concrete shall have an initial solar reflectance value of at least .30 as determined in accordance with American Society of Testing and Materials (ASTM) Standards E 1980 or E1918.
16. Orient 75 percent or more of buildings to face either north or south (within 30 degrees of N/S) and plant trees and shrubs that shed their leaves in winter nearer to these structures to maximize shade to the buildings during the summer and allow sunlight to strike the building during the winter months.*
17. Provide grass paving, tree shading, or reflective surface for unshaded parking lot areas, driveways, or fire lands that reduce standard black asphalt paving by 10% or more.*
18. Project driveways and parking areas shall be concrete instead of asphalt. Concrete shall have an initial solar reflectance value of at least .30 as determined in accordance with American Society of Testing and Materials (ASTM) Standards E 1980 or E1918.
19. Provide shuttle service to food service establishments/commercial areas.*

JS-5 cont

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20. Roof area shall be constructed with materials with an initial installation Solar Reflective Index Value of at least 39 or greater than the values specified and set forth in CalGreen 2013 Table A5.106.11.2.2.
21. All hot water heaters installed by Developer shall be powered either through solar cells mounted on the roof of the building, solar water heating, or through other on-site renewable power.*
22. No diesel-powered generator of any type shall be used at any time on the Project site.*
23. The site shall be developed to meet, but not exceed, the number of parking stalls required by local zoning requirements.

(*Would also reduce GHG emissions)

JS-5 cont

Health risk impacts from the Project should be modeled along all proposed truck routes for the Project, not merely receptors within 1,000 feet of the Project site. The "source" aka trucks, will pass closer to homes and schools if they travel north from the site. It would be preferable if the Project were developed with curb cutouts and other means to deter trucks from traveling north passed residences on Indian Avenue or Perris Boulevard, and were instead directed south to Harley Knox and I-215. Cumulative health risk impacts should be quantified. Health risk impacts should be weighted to account for children at the nearby schools.

JS-6

GLOBAL CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS

The EIR concludes that the Project would cause a significant and unmitigated impact to greenhouse gas (GHG) emissions. Yet, the EIR fails to recommend adoption of all feasible mitigation for the Project. "The Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminary estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provider that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City." (DEIR p. 1-7.) The Project should be conditioned to install the maximum supported amount of PV. There should be no alternative condition regarding purchasing an equivalent amount of electricity from a utility provider that receives its energy from renewable sources. It is feasible to require this design concept as mitigation and it is also feasible to require both the installation of solar panels and purchase of green energy from the utility company.

JS-7

The following additional mitigation should also be incorporated to reduce impacts to GHG emissions:

1. All operators on the Project site shall provide electric vehicle (EV) and compressed natural gas (CNG) vehicles in vehicles fleets.
2. Implement a parking fee for single-occupancy vehicle commuters.
3. Charge reduced or no parking fee for EVs and CNG vehicles.
4. Install a minimum of five EV charging stations onsite, at least three of which are DC Fastcharge/Quickcharge, with the remainder meeting at least EVSE Level 2 standards.
5. All buildings shall be constructed to LEED Platinum standards.
6. Require operators/users to implement a parking cash-out program for non-driving employees.
7. Require each user to establish a carpool/vanpool program.
8. Provide subsidies or incentives to employees who use public transit or carpooling, including preferential parking.

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9. Provide direct, safe, attractive pedestrian access from Project to transit stops and adjacent development.
10. Provide direct, safe bicycle access to adjacent bicycle routes.
11. Provide showers and lockers for employees bicycling or walking to work.
12. Design and locate buildings to facilitate transit access, e.g. locate building entrances near transit stops, eliminate building setbacks, etc.
13. Provide shuttle service to transit stations/multimodal centers.
14. Install an ozone destruction catalyst on all air conditioning systems.
15. Purchase only green/renewable power from the electric company.
16. Install solar water heating systems to general all hot water requirements.
17. Require the Project to participated in any existing Transportation Management Association (TMA). The TMA will coordinate with other TMAs within the City to encourage and coordinate carpooling among building occupants. If no TMA exists, the Project shall establish a TMA.

JS-7 cont

BIOLOGICAL RESOURCES

A small number of ornamental pines and Chinaberry trees exist in the southwesterly portion of the Project site. The EIR fails to disclose how and why these trees came to be present onsite and if they have any historic or cultural value.

JS-8

GEOLOGY AND SOILS

The EIR does not evaluate impacts to geology and soils as a potentially significant Project impact. The Initial Study states, "The Project Geotechnical Study indicates that soils within the Project site have a low expansion potential, but would require attention during Project design and maintenance." (IS p. 3-18) The issues that "require attention" are not discussed or disclosed in the EIR. Additionally, the EIR states, "The Project Geotechnical Study in total indicates that the Project site is not located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project." (DEIR p. 1-15.) Based on the discrepancy between the DEIR and Initial Study and the lack of analysis of the soils with a low expansion potential, the decision to not evaluate geology and soil impacts in greater detail is unsupported.

JS-9

UTILITIES AND SERVICE SYSTEMS

The EIR does not evaluate impacts to utility and service systems as a potentially significant Project impact. This decision to not evaluate whether sufficient water supplies are available to serve the Project from existing entitlements and resources in detail is not supported.

In January 2014, Governor Edmund G. Brown Jr. declared a drought state of emergency as California entered its four consecutive year of drought.[2] Governor Brown then issued twenty-five percent statewide mandatory water reductions in April 2015.[3] Most recently, Governor Brown

JS-1

[2] Governor Brown Declares Drought State of Emergency, Office of Governor Edmund G. Brown Jr., January 1, 2014 <https://www.gov.ca.gov/news.php?id=18368>.
[3] Governor Brown Directs First Ever Statewide Mandatory Water Reductions, Office of Governor Edmund G. Brown Jr., April 1, 2015 <https://www.gov.ca.gov/news.php?id=18910>.

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issued an additional state order to continue current actions and implement new actions in response to drought conditions.[4] Despite the El Nino weather system bringing a slightly above average snowpack, the drought will likely continue.[5] Additionally, California has agreed to gradually reduce the state's use of its 4.4 million acre-feet apportionment of the Colorado River by 2017.[6]

While a Water Supply Assessment may not be required pursuant to the Water Code, Project impacts to water supply should nevertheless be assessed in the EIR given drought conditions and the continuing application of use restrictions pursuant to Executive Order.

JS-1 cont

ALTERNATIVES

The EIR finds that the Reduced Intensity Alternative, and alternative that would develop 71,420 square feet of general light industrial uses and 285,660 square feet of high cube warehouse/distribution center uses, is the "environmentally superior alternative." Where there is an environmentally superior alternative that significantly decreases the significant impacts of the Project then that alternative must be approved rather than the Project if that alternative is feasible. (Public Resources Code § 21002; *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 597; State CEQA Guidelines § 15126.6(b).) The Reduced Intensity Alternative would avoid the Project's GHG impacts and significantly lessen impacts to transportation/traffic and air quality. Thus, this Alternative should be development instead of the Project.

The EIR states that the Reduced Intensity Alternative would "substantially diminish attainment of three fundamental Project Objectives." (DEIR p. 5-57.) However, this is incorrect as the Alternative would be able to meet the basic objectives of the Project:

JS-1

- Implement the City's General Plan through development that is consistent with the General Plan Community Development Element and applicable General Plan Goals, Objectives, Policies and Programs.
  The Alternative would still implement the City's General Plan by developing the vacant Project site with 71,420 square feet of general light industrial uses and 285,660 square feet of high cube warehouse/distribution center uses, consistent with the current Business Park/Light Industrial General Plan Land Use designation.

- Implement the Moreno Valley Industrial Area Plan through development that is consistent with the Area Plan land sues and development concepts, and in total supports the Area Plan Vision.

[4] Governor Brown Issues Executive Order to Bolster State's Drought Response, Office of Governor Edmund G. Brown Jr., November 13, 2015 <https://www.gov.ca.gov/news.php?id=19191>.
[5] California Farmers Brace for Water Shortage Despite El Nino,
[6] Colorado River Aqueduct, the Metropolitan Water District of Southern California, <http://www.mwdh2o.com/AboutYourWater/Sources%20Of%20Supply/Pages/Imported.aspx#tabs-State_Water_Project_SWP_>.

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The Alternative would implement the Moreno Valley Industrial Area Plan by developing the Project site with 71,420 square feet of general light industrial uses and 285,660 square feet of high cube warehouse/distribution center uses, consistent with the current Industrial Zoning designation under the MVIAP.

- Establish new development that would increase locally available employment opportunities and would further the City's near-term and long-range fiscal goals and objectives.
  As the Alternative would develop the currently vacant Project site with manufacturing and high cube warehousing uses, the Alternative would generate new employment beyond what currently exists in the City.

JS-1 cont

As the Reduced Intensity Alternative all Project objectives and substantially reduce or avoid the significant impacts of the Project, it should be adopted rather than the Project.

CONCLUSION

We appreciate the opportunity to offer comments on this Project, and thank you for your consideration of these comments.

JS-1

Sincerely,

Raymond W. Johnson
JOHNSON & SEDLACK

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Attachments and Electronic Citations

(1) *CalEEMod User's Guide*, Appendix E, Large Warehouse and Distribution Center Trip Rates, available at www.caleemod.com

(2) *Warehouse Truck Trip Study Data Results and Usage*, SCAQMD Mobile Source Committee, July 25, 2014 <http://www.aqmd.gov/docs/defaultsource/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-qualityanalysis/finaltrucktripstudymsc072514.pdf?sfvrsn=2. >

(3) *The Health Effects of Air Pollution on Children*, Michael T. Kleinman, Ph.D, Fall 2000, < http://www.aqmd.gov/docs/default-source/students/health-effects.pdf?sfvrsn=0 >

(4) *Diesel and Health in America: the Lingering Threat*, Clean Air Task Force, February 2005, <http://www.catf.us/resources/publications/files/Diesel_Health_in_America.pdf>

(5) *Technical Support Document for Cancer Potency Factors: Methodologies for derivation, listing of available values, and adjustments to allow for early life stage exposures*, California EPA OEHHA Air Toxicology and Epidemiology Branch, April 2009, p. 3. <http://www.oehha.ca.gov/air/hot_spots/pdf/TSDCPFApril_09.pdf.>

(6) U.S. Department of Housing and Urban Development. (March 2009) *The Noise Guidebook.* < https://www.onecpd.info/resource/313/hud-noise-guidebook/>

(7) Suter, Dr. Alice H., Administrative Conference of the United States. (November 1991) *Noise and Its Effects.* <http://www.nonoise.org/library/suter/suter.htm>

(8) 2013 Traffic Volumes on California State Highways, Caltrans (2013), <, http://traffic-counts.dot.ca.gov/2013all/>

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RAYMOND W. JOHNSON, Esq. AICP
26785 Camino Seco
Temecula, CA 92590
(951) 506-9925
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(951) 775-1912 Cellular

Johnson & Sedlack, an Environmental Law firm representing plaintiff environmental groups in environmental law litigation, primarily CEQA.

City Planning:

Current Planning

- Two years principal planner, Lenexa, Kansas (consulting)
- Two and one half years principal planner, Lee's Summit, Missouri
- One year North Desert Regional Team, San Bernardino County
- Twenty-five years subdivision design: residential, commercial and industrial
- Twenty-five years as applicants representative in various jurisdictions in: Missouri, Texas, Florida, Georgia, Illinois, Wisconsin, Kansas and California
- Twelve years as applicants representative in the telecommunications field

General Plan

- Developed a policy oriented Comprehensive Plan for the City of Lenexa, Kansas.
- Updated Comprehensive Plan for the City of Lee's Summit, Missouri.
- Created innovative zoning ordinance for Lenexa, Kansas.
- Developed Draft Hillside Development Standards, San Bernardino County, CA.
- Developed Draft Grading Standards, San Bernardino County.
- Developed Draft Fiscal Impact Analysis, San Bernardino County

Environmental Analysis

- Two years, Environmental Team, San Bernardino County
  - Review and supervision of preparation of EIR's and joint EIR/EIS's
  - Preparation of Negative Declarations
  - Environmental review of proposed projects
- Eighteen years as an environmental consultant reviewing environmental documentation for plaintiffs in CEQA and NEPA litigation

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Representation:

- Represented various clients in litigation primarily in the fields of Environmental and Election law. Clients include:
  - Sierra Club
  - San Bernardino Valley Audubon Society
  - Sea & Sage Audubon Society
  - San Bernardino County Audubon Society
  - Center for Community Action and Environmental Justice
  - Endangered Habitats League
  - Rural Canyons Conservation Fund
  - California Native Plant Society
  - California Oak Foundation
  - Citizens for Responsible Growth in San Marcos
  - Union for a River Greenbelt Environment
  - Citizens to Enforce CEQA
  - Friends of Riverside's Hills
  - De Luz 2000
  - Save Walker Basin
  - Elsinore Murrieta Anza Resource Conservation District

Education:

- B. A. Economics and Political Science, Kansas State University 1970
- Masters of Community and Regional Planning, Kansas State University, 1974
- Additional graduate studies in Economics at the University of Missouri at Kansas City
- J.D. University of La Verne. 1997 Member, Law Review, Deans List, Class Valedictorian, Member Law Review, Published, Journal of Juvenile Law

Professional Associations:

- Member, American Planning Association
- Member, American Institute of Certified Planners
- Member, Association of Environmental Professionals

Johnson & Sedlack, Attorneys at Law
26785 Camino Seco 12/97- Present
Temecula, CA 92590
(951) 506-9925

Principal in the environmental law firm of Johnson & Sedlack. Primary areas of practice are environmental and election law. Have provided representation to the Sierra Club, Audubon Society, AT&T Wireless, Endangered Habitats League, Center for Community Action and Environmental Justice, California Native Plant Society and numerous local environmental groups. Primary practice is writ of mandate under the California Environmental Quality Act.

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Planning-Environmental Solutions
26785 Camino Seco 8/94- Present
Temecula, CA 92590
(909) 506-9825

Served as applicant's representative for planning issues to the telecommunications industry. Secured government entitlements for cell sites. Provided applicant's representative services to private developers of residential projects. Provided design services for private residential development projects. Provided project management of all technical consultants on private developments including traffic, geotechnical, survey, engineering, environmental, hydrogeological, hydrologic, landscape architectural, golf course design and fire consultants.

San Bernardino County Planning Department
Environmental Team 6/91-8/94
385 N. Arrowhead
San Bernardino, CA 92415
(909) 387-4099

Responsible for coordination of production of EIR's and joint EIR/EIS's for numerous projects in the county. Prepared environmental documents for numerous projects within the county. Prepared environmental determinations and environmental review for projects within the county.

San Bernardino County Planning Department
General Plan Team 6/91-6/92
385 N. Arrowhead
San Bernardino, CA 92415
(909) 387-4099

Created draft grading ordinance, hillside development standards, water efficient landscaping ordinance, multi-family development standards, revised planned development section and fiscal impact analysis. Completed land use plans and general plan amendment for approximately 250 square miles. Prepared proposal for specific plan for the Oak Hills community.

San Bernardino County Planning Department
North Desert Regional Planning Team
15505 Civic 6/90-6/91
Victorville, CA
(619) 243-8245

Worked on regional team. Reviewed general plan amendments, tentative tracts, parcel maps and conditional use permits. Prepared CEQA documents for projects.

Broadmoor Associates/Johnson Consulting
229 NW Blue Parkway
Lee's Summit, MO 64063
(816) 525-6640 2/86-6/90

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Sold and leased commercial and industrial properties. Designed and developed an executive office park and an industrial park in Lee's Summit, Mo. Designed two additional industrial parks and residential subdivisions. Prepared study to determine target industries for the industrial parks. Prepared applications for tax increment financing district and grants under Economic Development Action Grant program. Prepared input/output analysis of proposed race track Provided conceptual design of 800 acre mixed use development.

Shepherd Realty Co.
Lee's Summit, MO 6/84-2-86

Sold and leased commercial and industrial properties. Performed investment analysis on properties. Provided planning consulting in subdivision design and rezoning.

Contemporary Concepts Inc.
Lee's Summit, MO 9/78-5/84
Owner

Designed and developed residential subdivision in Lee's Summit, Mo. Supervised all construction trades involved in the development process and the building of homes.

Environmental Design Association
Lee's Summit, Mo.
Project Coordinator 6/77-9/78

Was responsible for site design and preliminary building design for retirement villages in Missouri, Texas and Florida. Was responsible for preparing feasibility studies of possible conversion projects. Was in charge of working with local governments on zoning issues and any problems that might arise with projects. Coordinated work of local architects on projects. Worked with marketing staff regarding design changes needed or contemplated.

City of Lee's Summit, MO
220 SW Main
Lee's Summit, MO 64063
Community Development Director 4/75-6/77

Supervised Community Development Dept. staff. Responsible for preparation of departmental budget and C.D.B.G. budget. Administered Community Development Block Grant program. Developed initial Downtown redevelopment plan with funding from block grant funds. Served as a member of the Lee's Summit Economic Development Committee and provided staff support to them. Prepared study of available industrial sites within the City of Lee's Summit. In charge of all planning and zoning matters for the city including comprehensive plan.

Howard Needles Tammen & Bergendoff
9200 Ward Parkway
Kansas City, MO 64114
(816) 333-4800 5/73-4/75
Economist/Planner

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

Responsible for conducting economic and planning studies for Public and private sector clients. Consulting City Planner for Lenexa, KS.

Conducted environmental impact study on maintaining varying channel depth of the Columbia River including an input/output analysis. Environmental impact studies of dredging the Mississippi River. Worked on the Johnson County Industrial Airport industrial park master plan including a study on the demand for industrial land and the development of target industries based upon location analysis. Worked on various airport master plans. Developed policy oriented comprehensive plan for the City of Lenexa, KS. Developed innovative zoning ordinance heavily dependent upon performance standards for the City of Lenexa, KS.

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Johnson & Sedlack
26785 Camino Seco
Temecula, CA 92590

Letter Dated October 10, 2016

Comment JS-1

On behalf of the Sierra Club and Residents for a Livable Moreno Valley, I hereby submit these comments on the Draft Environmental Impact Report (EIR) for the Indian Street Commerce Center, Environmental Impact Report Case #P16-003 (SCH No. 2016031036).

PROJECT DESCRIPTION AND SUMMARY

The Project proposes development of 446,350 square feet of light industrial uses on a 19.64-acre site. As proposed, 347,080 square feet would be dedicated for distribution warehouse uses, 89,270 square feet would be dedicated to manufacturing, and 10,000 square feet would be dedicated for office uses. The Project would include approximately 35 loading dock doors along the southerly portion of the warehouse. Access to the Project site would be from two driveways on Indian Street along the eastern side of the Project site. Driveway 1 would provide access for passenger vehicles, while Driveway 2 would provide access to trucks.

The site is presently vacant and undeveloped. The site is located in the southern portion of the City approximately one-half mile west of Perris Boulevard and is bounded by Indian Street to the east and Grove View Road (alignment) to the north. March Air Reserve Base is located approximately one-third mile west of the Project site.

Having reviewed the Draft EIR, we have the following comments, concerns, and recommendations:

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Response JS-1

The commentor's representative role is noted. The summary of Project uses and total acreage to be developed, as stated by the commentor, is materially correct. The detailed Project Description is presented at Draft EIR Section 3.0.

Comment JS-2

GENERAL COMMENTS

The California Environmental Quality Act ("CEQA") was adopted as a disclosure and transparency document. The theory is that by providing a document that adequately describes the environmental consequences of a project to decision makers and the public, the decision makers will make a rational decision based upon the true environmental consequences of the project and if they do not, the electorate can hold them accountable for their decisions. The core of this statutory structure is the adequacy of the document as an informational document.

The EIR truck trip distribution is unsupported, and Project impacts to traffic and air quality would be potentially more significant if revised to reflect an accurate trip distribution. The EIR should be revised and recirculated using the EIR assumption regarding trip distribution for the Traffic Impact Analysis.

Several potentially significant impacts are omitted from full evaluation in the EIR including, impacts to/from geology/soils and utilities/service system. The EIR should be revised to evaluate these impacts. The EIR also fails to adequately evaluate and disclose impacts to/from, but not limited to, air quality, health risks, global climate change and greenhouse gas emissions, and transportation/traffic. (Public Resources Code § 21002.1(a), (e); State CEQA Guidelines § 15128, 15126, 15123.) The EIR also fails to adopt all feasible mitigation to reduces the Project's significant impacts to air quality, greenhouse gas emissions, and transportation/traffic.

For these reasons and as set forth below, the EIR should be revised and recirculated, and additional mitigation incorporated into any proposed Project set out for City approval. Currently, the EIR fails as an informational document and the conclusions in the EIR are unsupported by substantial evidence.

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Response JS-2

The commentor summarizes CEQA informational and disclosure precepts. The EIR appropriately responds to and conforms with the intent and purpose of CEQA.

The commentor then provides various incorrect assertions regarding the EIR analyses of Transportation/Traffic, Air Quality, Geology/Soils, Health Risks, Global Climate Change/Greenhouse Gas Emissions, and Utilities/Service Systems; and summarizes the comments presented within the remainder of the letter. The commentor offers an opinion regarding the adequacy of the Draft EIR.

The commentor assertions regarding the EIR are in total inaccurate and incorrect. Commentor opinions regarding adequacy of the EIR are noted. Specific responses to commentor statements are presented below.

Comment JS-3

TRANSPORTATION/TRAFFIC

The statement that regional VMT and vehicular source emissions are reduced because: "Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery vendor truck trips," is unsupported by any evidence. (DEIR p. 3-20.) The EIR should consider regional VMT for the Project based on actual trip lengths, likely with a substantial portion travelling to/from the Ports of Los Angeles and Long Beach.

Appendix B states, "The truck trip distribution patterns have been developed based on the anticipated travel patterns for the high-cube warehousing trucks." (Indian Street Commerce Center Traffic Impact Analysis, p. 59.) Project truck trip distribution is completely unsupported by anticipated travel patterns. The EIR assumes that 50% of all delivery trips will travel to and from the Project and the Port of Los Angeles/Long Beach, 10% go East on the State Route 60, 20% go to San Diego, 10% go to the Inland Empire, 5% go to Perris destinations and the remaining 5% to Moreno Valley destinations. However, the Traffic Impact Analysis anticipates

95% of the inbound truck trips to be from SR-60 to I-215 southbound. There is no reason for this finding when the EIR assumes 20% of trips would be traveling north from San Diego.

The evaluation of traffic impacts fails to consider impacts to alternate routes and city streets if traffic on highways becomes too congested. Intersection and roadway impacts should be re-evaluated accounting for a more reasonable number of northbound trips on I-215 and evaluating Project impacts on I-91 and I-10.

Mitigation should be adopted requiring that the Project pay into a transportation mitigation fee program for impacts to the state highway system should a fee program be adopted in the future between the City and Caltrans.

Response JS-3

The commentor offers an opinion regarding factors that tend to reduce vehicle miles traveled. Empirically, trip consolidation as occurs at distribution warehouse facilities increases the load per vehicle, diminishes the number of single vehicle trips over a given distance, acting to reduce vehicle miles traveled within the region. The main benefits of consolidation and increasing the load factor per vehicle include a reduction in the number of vehicles traveling within the Study Area and surrounding region, as well as reductions in congestion, VMT and pollution. Reductions in VMT that may be achieved by the Project design and location are qualitative aspects of the Project and are not considered as mitigating factors in the EIR quantitative analyses. That is, the EIR quantitative analyses do not take credit for any VMT reductions that could accrue to the Project.

The commentor states that the EIR should consider regional VMT for the Project based on actual trip lengths. This is indeed the analytic protocol employed in the EIR. Please refer to EIR p. 4.2-37, 4.2-38, relevant text excerpted below.

> For the Project mobile-source emissions, air quality impacts have been evaluated employing assumptions and protocols reflected in the South

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Coast Air Quality Management District *Draft Warehouse Truck Trip Study* (SCAQMD) December 2014 (Draft Warehouse Truck Trip Study); and reflecting likely maximum trip lengths as follows:

- For passenger car trips, the CalEEMod default for a one-way trip length of 16.6 miles was assumed.

- For heavy duty trucks, average trip length were employed reflecting distances from the Project site to the far edges of the South Coast Air Basin (SCAB.)

    - Project site to the Port of Los Angeles/Long Beach: 80 miles;
    - Project site to East on State Route 60: 30 miles;
    - Project site to San Diego County line: 60 miles;
    - Project site to Inland Empire: 50 miles;
    - Project site to Perris destinations: 10 miles;
    - Project site to Moreno Valley destinations: 10 miles.

Assuming that 50% of all delivery trips will travel to and from the Project and the Port of Los Angeles/Long Beach, 10% go East on the State Route 60, 20% go to San Diego, 10% go to the Inland Empire, 5% go to Perris destinations and the remainder as Moreno Valley destinations. The average truck trip length is calculated as 61 miles.

Results and conclusions of the EIR are not affected.

The commentor incorrectly represents Trip Distribution information provided in the EIR. Specifically, the commentor states "the Traffic Impact Analysis anticipates 95% of the inbound truck trips to be from SR-60 to I-215 southbound. There is no reason for this finding when the EIR assumes 20% of trips would be traveling north from San Diego." The EIR does NOT assume 20% of trips would be traveling north from San Diego.

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Project Truck Distribution is graphically depicted at EIR Figure 4.1-7 (TIA Exhibit 4-2), reproduced on the following page. As indicated, 95 percent of the inbound trips would access the Project via southbound I-215. Twenty percent of the outbound trips would travel southbound via I-215. Contrary to the commentor's assertion, there is no assumed "20% of trips would be traveling north from San Diego."

Results and conclusions of the EIR are not affected.

The commentor speculates on potential traffic impacts under vague, unknown and unspecified traffic congestion conditions, i.e, when conditions are "*too congested*." The EIR evaluates and discloses likely maximum traffic impacts consistent with accepted traffic impact modeling protocols including substantiated and vetted congestion analyses and trip distribution protocols. The commentor offers no evidence for congestion analyses or trip distribution protocols other than those presented in the EIR. Results and conclusions of the EIR are not affected.

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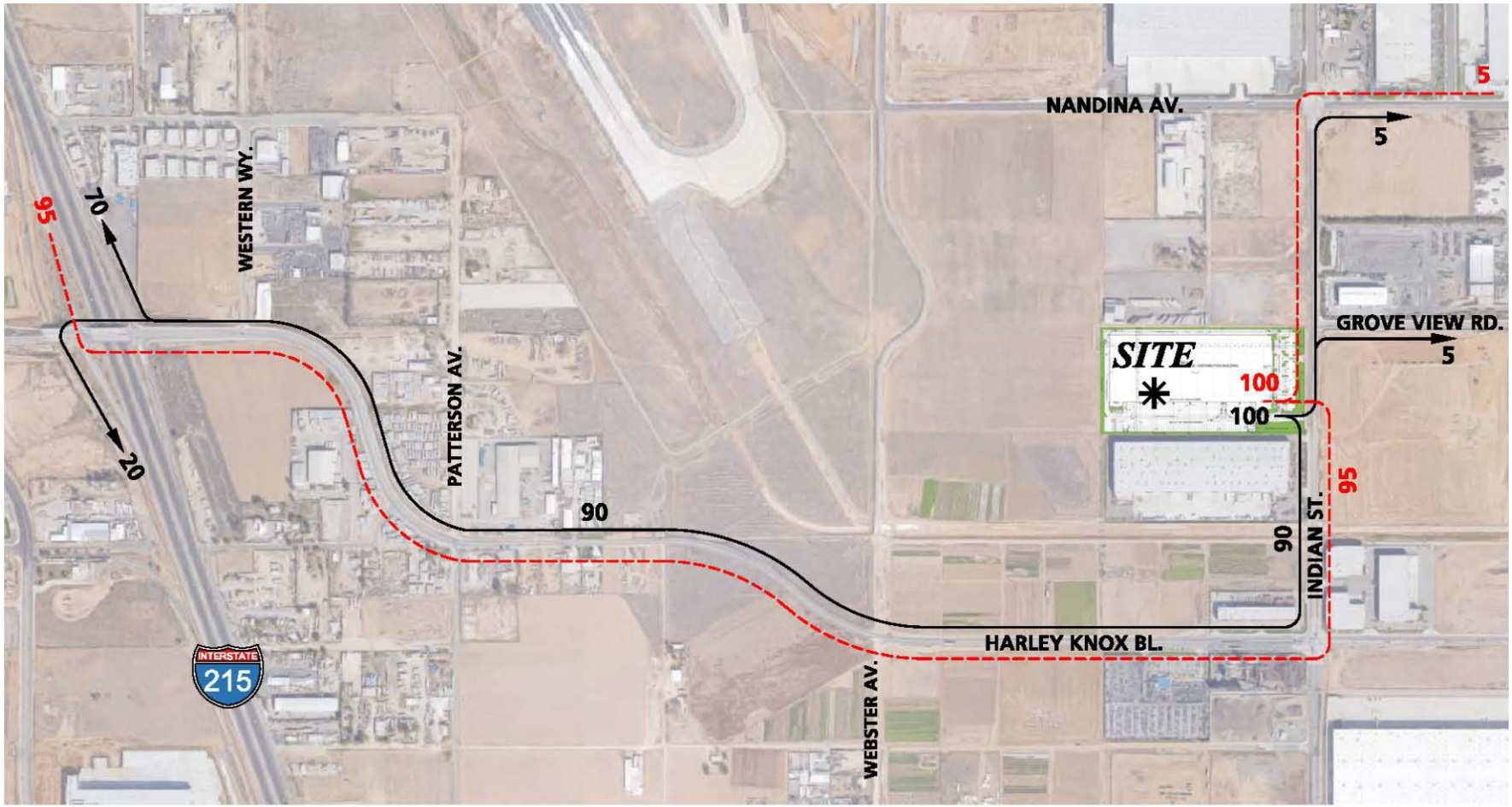

LEGEND:

10 = PERCENT TO/FROM PROJECT

= OUTBOUND

= INBOUND

N

NOT TO SCALE

Source: Urban Crossroads, Inc.

Figure 4.1-7
Project (Truck) Trip Distribution

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Comment JS-4

AIR QUALITY

The EIR assumes a 61-mile trip length for vehicle trips, but the EIR does not state whether this a one-way or round-trip assumption. The EIR should clarify that vehicles will travel 61-miles one-way to/from the Project site.

The EIR finds that the Project would result in significant operational impacts to NOX. Additional mitigation measures requiring cleaner trucks for the Project should be implemented in light of these emissions. As stated by SCAG:

The two air pollutants of greatest concern in Southern California are nitrogen oxides (NOX) and fine particulate matter (PM2.5). The South Coast Air Basin is classified as an extreme nonattainment area per the federal ambient ozone standard, with a required attainment date of 2023. By approximately 2031, a second, more stringent federal ozone standard must be attained. The federal Clean Air Act requires the region to demonstrate timely attainment of these standards or federal sanctions may result, such as interruption or curtailment of funding for transportation projects. To attain the federal ozone standards the region will need broad deployment of zero and near-zero-emission transportation technologies in the 2023 to 2035 timeframe." [emphasis added] (Southern California Association of Governments' (SCAG's) 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).)

Moreover, in the Inland Empire, increase distribution warehousing and truck travel to and from the ports of Los Angeles and Long Beach are anticipated to cause "substantial congestion problems due to the increased truck volumes on regional highways." (Id.) In light of the fact that this Project and cumulative Projects are anticipated to exacerbate the substantial NOX and PM2.5 problems in the Southern California region, a mitigation measure requiring that all trucks accessing the site meet or exceed 2010 model year emissions equivalent engine standards as currently defined in California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, should be adopted for this Project.

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Response JS-4

The commentor is uncertain whether average truck trip lengths reflected in the EIR are one-way or round trip. To clarify, truck trip lengths are for one-way travel. Results and conclusions of the EIR are not affected.

As noted by the commentor, the EIR concludes that even with application of mitigation, Project operational-source NOx emissions impacts would be significant and unavoidable. The commentor suggests that additional mitigation measures requiring cleaner trucks for the Project should be implemented in light of these emissions.

In response, please note that mobile-source vehicle tail pipe emissions cannot be materially controlled or mitigated by the Lead Agency or the Project Applicant. Rather, these emissions sources are regulated by CARB and USEPA. As summarized at EIR 4.2.5, Regional Air Quality Trends, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve. Future CARB and USEPA actions could be expected to have a positive effect on Project-related vehicular-source emissions, resulting in incremental reductions in vehicular-source emissions when compared to either the Project AQIA emissions estimates. Further, the Applicant cannot control the type or quality of vehicles accessing the Project site.

The commentor notes air pollutants of concern and non-attainment conditions in Southern California. Regional and local air quality conditions are identified at EIR p. 4.2-16, Table 4.2-2 (reproduced below), including non-attainment conditions cited by the commentor.

Table 4.2-2
Attainment Status of Criteria Pollutants in the South Coast Air Basin (SCAB)

Pollutant	State Designation	Federal Designation
Ozone (1-hour)	Non-attainment	No Standard
Ozone (8-hour)	Non-attainment	Extreme Non-attainment[1]

Table 4.2-2
Attainment Status of Criteria Pollutants in the South Coast Air Basin (SCAB)

Pollutant	State Designation	Federal Designation
Particulate Matter (PM_{10})	Non-attainment	Serious Non-attainment
Particulate Matter ($PM_{2.5}$)	Non-attainment	Non-attainment
Carbon Monoxide	Attainment	Attainment/Maintenance
Nitrogen Dioxide	Non-attainment[2]	Attainment/Maintenance
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment/Non-attainment[3]	Attainment/Non-attainment[4]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

Notes:

[1] The USEPA approved redesignation from Severe 17 to Extreme Nonattainment on May 5, 2010, effective June 4, 2010.

[2] The SCAB was reclassified from attainment to non-attainment for nitrogen dioxide on March 25, 2010.

[3] Los Angeles County was reclassified from attainment to non-attainment for lead on March 25, 2010; the remainder of the SCAB is in attainment of the State standard.

[4] The Los Angeles County portion of the SCAB is classified as non-attainment for lead; the remainder of the SCAB meets State attainment standards.

The commentor cites to Southern California Association of Governments (SCAG) 2012-2035 RTP/SCS discussions regarding necessary actions to achieve federal ozone attainment standards – *"To attain the federal ozone standards the region will need broad deployment of zero and near-zero-emission transportation technologies in the 2023 to 2035 timeframe." [emphasis added] (Southern California Association of Governments' (SCAG's) 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).)"*

Project support of attainment standards is discussed in the EIR. As discussed in the EIR, the Project is consistent with the Basin Air Quality Management Plan (AQMP) and the Project attributes and features are consistent with and support AQMP air pollution reduction strategies and promote timely attainment of AQMP air quality standards (EIR pp. 4.2-28 – 4.2-31). The EIR also discusses general air quality trends documented by SCAQMD and CARB, indicating comparatively improved air quality over historic conditions, with a future similar trend line. Relevant EIR discussions are excerpted below.

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4.2.5 REGIONAL AIR QUALITY TRENDS

SCAQMD is the agency responsible for regulating stationary air pollution sources within the Basin.[2] To these ends, SCAQMD develops comprehensive plans and regulatory programs for the region in order to attain federal air quality standards by dates specified under federal law. SCAQMD responsibilities also include attainment of state air quality standards at the earliest achievable date, employing reasonably available control measures.

SCAQMD rule development through the 1970s and 1980s realized substantial improvement in Basin air quality. Subsequent SCAQMD pollution prevention and control programs developed during the 1990s relied on: (i) development and application of cleaner technologies; (ii) add-on emission controls; and (iii) uniform CEQA review throughout the Basin. Industrial-source air pollutant emissions within the Basin have been significantly reduced through this approach. Additionally, Basin-wide vehicular-source emissions have been reduced by technologies implemented at the state level by the California Air Resources Board (CARB).

4.2.5.1 Criteria Pollutants Reduced Basin-wide

Air Quality Management Plans (AQMPs) prepared and periodically updated by SCAQMD establish air quality attainment targets and related strategies intended to achieve federal and state air quality standards. The Basin's historical improvement in air quality since the 1970's is the direct result of the comprehensive, multi-year air pollution reduction strategies outlined in the AQMP(s), and by utilizing uniform CEQA review throughout the Basin. Under the AQMPs, Ozone, NO_x, VOC, and CO

2 Separately, the California Air Resources Board (CARB) regulates mobile-source air pollutants within the Basin.

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emissions within the Basin have demonstrably decreased since 1975, with continuing substantive decreases anticipated through 2020.

Diminished air pollutant emissions with the Basin are primarily the result of replacement of older vehicles with newer more fuel-efficient and/or alternative fuel vehicles; and increasingly effective motor vehicle emissions controls, including evaporative emissions controls. Because of the mandated controls on motor vehicles and the replacement of older polluting vehicles, although vehicle miles traveled in the Basin continue to increase, NO_x and VOC levels continue to decrease. NO_x emissions resulting from electric power generation have also decreased, largely due to use of cleaner fuels and renewable energy. Relative decreases in ambient levels of Ozone, particulate matter (PM_{10} and $PM_{2.5}$), and CO are also evident Basin-wide. Ozone air quality in the SCAB has improved substantially over historic conditions. For example:

- During the 1960s, maximum 1-hour concentrations exceeded 0.60 ppm. Currently, maximum measured concentrations approximate 0.20 ppm or less;

- The 2007 peak 8-hour indicator value for Ozone was 42 percent lower than the 1988 value;

- The 2008 three-year average of the maximum 8-hour concentration for Ozone was over 41 percent lower than in 1990; and

- The number of days that the Basin Ozone levels exceeded state and federal standards has also declined dramatically.

Trends for particulate matter emissions (PM_{10} and $PM_{2.5}$) also show an overall improvement when compared to historic conditions. Direct

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emissions of PM_{10} have remained somewhat constant in the Basin and direct emissions of $PM_{2.5}$ have decreased slightly since 1975. Area-wide sources (fugitive dust from roads, dust from construction and demolition, and other sources) contribute the greatest amount of direct particulate matter emissions. Despite the overall decrease, ambient concentrations still exceed the State annual and 24-hour PM_{10} standards; and the Basin is also currently designated as nonattainment under the State and national $PM_{2.5}$ standards. Measures adopted under the Basin $PM_{2.5}$ State Implementation Plan (SIP), as well as programs to reduce ozone and diesel particulate matter (DPM) will help in reducing regional ambient $PM_{2.5}$ levels.

CO concentrations in the Basin have also decreased markedly when compared to past conditions — evidenced by more than 72 percent in the peak 8-hour CO indicator since 1988. The number of CO exceedance days has also declined. During 1988, there were 73 days above the State standard and 65 days above the national standard. However, since 2003, there were no exceedance days for either standard. The Basin in its entirety is now designated as attainment for both the state and national CO standards. Ongoing reductions from motor vehicle control programs should continue the downward trend in ambient CO concentrations.

4.2.5.2 Diesel Emissions and Diesel Particulate Matter (DPM) Reduced Basin-wide

CARB and the Ports of Los Angeles and Long Beach have adopted regulations acting to reduce levels of DPM. In summary, these regulations require that older, more polluting trucks be replaced with newer, cleaner trucks. These regulatory requirements have yielded reductions in DPM emissions generated per mile traveled and associated reductions in ambient DPM levels within the Basin. Further DPM emissions reductions

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are anticipated as additional inefficient and polluting vehicles are retired from service.

DPM emissions are a known source of increased cancer risks. Paralleling the decline in Basin-wide DPM levels noted above, information available from CARB indicates that overall cancer risk throughout the basin has had a declining trend since 1990. Additional reductions in diesel risk exposure are anticipated to result from CARB's Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. The key elements of the Plan include: retrofit emission control devices for older diesel engines; adoption of stringent standards for new diesel engines; and reduced sulfur content of diesel fuel to protect advanced technology emission control devices on newer diesel engines.

[DEIR, pp. 4.2-21 - 4.2-24]

To summarize:

- The Project cannot materially or meaningfully control vehicular-source NOx emissions, and Project vehicular-source emissions are appropriately recognized as significant and unavoidable in the EIR.

- The Project would not interfere with or obstruct attainment of air quality standards. Moreover, Basin air quality trends as affected by increasingly stringent regulations and vehicle turnover evidence improvement when compared to historic conditions.

- The Project would comply with all air quality regulations, including those more stringent regulations that may be implemented, and over time would accommodate transition to newer/cleaner vehicles.

Results and conclusions of the EIR are not affected.

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The commentor states *"[i]n light of the fact that this Project and cumulative Projects are anticipated to exacerbate the substantial NOx and $PM_{2.5}$ problems in the Southern California region, a mitigation measure requiring that all trucks accessing the site meet or exceed 2010 model year emissions equivalent engine standards as currently defined in California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, should be adopted for this Project."*

It is first noted that the Project would not result in or cause potentially significant $PM_{2.5}$ emissions impacts. CEQA does not require mitigation for impacts determined to be less-than-significant.

With regard to vehicle-source NOx impacts, as noted herein, neither the lead Agency or the Applicant can meaningfully control vehicular-source NOx emissions, and reductions of these emissions in general has been realized through regulatory actions and as the result of the transition to newer and cleaner fuels and fuel-efficient technologies. In combination, regulatory actions and transition to newer/cleaner fuels and energy-efficient technologies are expected to result in significant, Basin-wide reductions in PM_{10}/$PM_{2.5}$, NOx, VOC, CO emissions.

With respect to the commentor's proposed imposition of 2010 model year emissions standards, the Lead Agency supports compliance with incumbent vehicle emissions standards, and encourages voluntary use of vehicles that surpass incumbent emissions standards. That said, under the current Truck and Bus Regulation (CARB, 2008) all diesel truck fleets operating in California are required to adhere to an aggressive schedule for upgrading and replacing heavy-duty truck engines. Pursuant to the Regulation, older, heavier trucks, i.e., those with pre-2000 year engines and a gross vehicle weight rating (GVWR) greater than 26,000 pounds are already required to have installed a PM filter and must be replaced with a 2010 engine within the timeframe 2015 - 2020, depending on the model year. As of 2015 under the Regulation, heavier pre-1994 trucks must be upgraded to 2010 engines and newer trucks are thereafter required to be replaced over the next eight years.

Older, more polluting trucks are required to be replaced first, while trucks that already have relatively clean 2007-2009 engines are not required to be replaced until 2023. Lighter trucks (those with a GVWR of 14,001 to 26,000 pounds) must adhere to a similar schedule, and will all be replaced by 2020. Further, nearly all trucks that are not required under the Truck and Bus Regulation to be replaced by 2015 are required to be upgraded with a PM filter by that date. Therefore, most heavy-duty trucks entering the Project site already meet or exceed 2010 emission standards, or would do so in the near-term. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent.

In the context of the Truck and Bus Regulation, the only effect of the commentor's proposed mitigation measure would be to require the upgrade or replacement of newer, relatively cleaner trucks accessing the Project site a few years sooner prior than would be mandated by the Truck and Bus Regulation. As such, the measure offered by the commentor would at best expedite the reduction of Project truck emissions, yielding a nominal reduction in NOx over the approximately 5 years between the Project Opening Year (2018) and full implementation of the Truck and Bus Regulation in 2023. This marginal reduction in emissions that may result from the commentor's proposed mitigation measure would not avoid nor significantly reduce Project operational-source NOx emissions, and Project NOx emissions would remain significant and avoidable.

Further, the commentor's proposed measure would not demonstrably reduce Basin-wide NOx emissions. That is, just because the measure would prohibit older trucks access to the Project site, by no means does the measure preclude their operation elsewhere within the Basin. The measure would in effect direct these older vehicles and associated emission to numerous other warehouses at other Basin locales, with no net reduction in Basin-wide NOx emissions.

For the reasons listed above, the commentor's proposed measure is not incorporated in the EIR.

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Results and conclusions of the EIR are not affected.

Comment JS-5

The following additional mitigation is also feasible and should be adopted to reduce this effect:

*1. The operator/user of any industrial uses shall become SmartWay Patner.**

*2. The operator/user of any industrial uses shall meet SmartWay 1.25 ratings.**

*3. The operator/user of any industrial uses shall use only freight companies that meet SmartWay 1.25 ratings.**

*4. All heavy trucks accessing the site shall conform to 2010 air quality standards or better. Results, including backup data shall be reported to the Planning Department semi-annually.**

5. The developer shall establish a diesel minimization plan (DMP) to implement the regulations of the California Air Resources Board pursuant to a faster schedule than required by law. The DMP shall require the phase in or new or retrofitted trucks so that by 2020 all rucks with GVWR greater than 16,000lbs that visit the Project site and/or are owner or operated by a Project tenant shall meet or exceed 2010 model year emissions equivalent engine standards as currently defined in California Code of Regulations Title 13, Division 3, Chapter 1, Articles 4.5, Section 2025. The DMP shall also require that all 53-foot or longer box-type trailers are equipped with lowrolling resistance tires by 2015. From the date of Project approval and for six years thereafter, Developer (and/or purchaser/tenant/owner/operator, as required by contract provision) shall maintain evidence of compliance with the DMP. Developer, tenant, or purchaser shall maintain a log including license plates, engine model year, retrofit technology if applicable, and engine family name of all trucks accessing the Project site. 10% of the truck fleets for any industrial uses shall be 2010 model compliant upon Project opening, and increase that percentage at least 20% per year until 100% of trucks operating onsite are 2010 compliant.

*6. Diesel yard trucks (holsters, yard goats, etc.) shall be prohibited from use onsite.**

*7. Install catalytic converters on gasoline-powered equipment.**

8. Where diesel powered vehicles are necessary, require the use of alternative diesel fuels.

*9. Electrical powered equipment shall be utilized in-lieu of gasoline-powered engines where technically feasible.**

*10. Utilize electrical equipment for landscape maintenance. Prohibit gas powered equipment for landscape maintenance.**

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*11. Utilize electric yard trucks (aka yard goats, hostlers).**

*12. Plant shade trees in parking lots to provide minimum 50% cover to reduce evaporative emissions from parked vehicles.**

*13. Plant at least 50% low-ozone forming potential (Low-OFP) trees and shrubs, preferably native, drought-resistant species, to meet city/county landscaping requirements.**

*14. Plant Low-OFP, native, drought-resistant tree and shrub species, 20% in excess of that already required by city or county ordinance. Consider roadside, sidewalk, and driveway shading.**

15. Concrete, instead of asphalt, shall be used for parking areas. Concrete shall have an initial solar reflectance value of at least .30 as determined in accordance with American Society of Testing and Materials (ASTM) Standards E 1980 or E1918.

*16. Orient 75 percent or more of buildings to face either north or south (within 30 degrees of N/S) and plant trees and shrubs that shed their leaves in winter nearer to these structures to maximize shade to the buildings during the summer and allow sunlight to strike the building during the winter months.**

*17. Provide grass paving, tree shading, or reflective surface for unshaded parking lot areas, driveways, or fire lands that reduce standard black asphalt paving by 10% or more.**

18. Project driveways and parking areas shall be concrete instead of asphalt. Concrete shall have an initial solar reflectance value of at least .30 as determined in accordance with American Society of Testing and Materials (ASTM) Standards E 1980 or E1918.

*19. Provide shuttle service to food service establishments/commercial areas.**

20. Roof area shall be constructed with materials with an initial installation Solar Reflective Index Value of at least 39 or greater than the values specified and set forth in CalGreen 2013 Table A5.106.11.2.2.

*21. All hot water heaters installed by Developer shall be powered either through solar cells mounted on the roof of the building, solar water heating, or through other on-site renewable power.**

*22. No diesel-powered generator of any type shall be used at any time on the Project site.**

23. The site shall be developed to meet, but not exceed, the number of parking stalls required by local zoning requirements.

*(*Would also reduce GHG emissions)*

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Response JS-5

The commentor states: "*The following additional mitigation is also feasible and should be adopted to reduce this effect.*" The effect alluded to by the commentor is unclear. If the effect is reduction in operational-source $PM_{2.5}$ emissions, as noted previously, Project operational-source $PM_{2.5}$ emissions impacts are substantiated in the DEIR to be less-than-significant (DEIR p. 4.2-40, et al.), and no additional mitigation is required.

The commentor here offers numerous additional measures assumed to generally reduce air quality impacts. The nexus of the measures with potentially significant impacts identified in the EIR is however at best unclear, and there is no demonstrated nexus between the offered measures and their presumed potential to reduce operational-source NOx exceedances identified within the Draft EIR. Further, the commentor provides no substantiated efficacy of the measures offered. In summary, the commentor offers no evidence or discussion as to how the measures relate to, or would reduce Project operational-source NOx emissions impacts.

Nor are the suggested measures' feasibility[3] and applicability to the Project meaningfully considered or established by the commentor. The predominance of the measures apparently address stationary/fixed sources and/or construction-source emissions (Measures 6 – 22) and would not meaningfully or even measurably reduce Project operational source NOx emission, 99.5 percent of which are generated by mobile sources. Other measures offered by the commentor (Measure 5) apparently address DPM emissions. As substantiated in the EIR, Project DPM emissions impacts are determined to be less-than-significant (DEIR pp. 4.2-54 – 4.2-65) Other measures offered by the commentor (Measure 23) are policy level actions, clearly beyond the scope of the Project under consideration and beyond the control of the Applicant, with no demonstrated or quantified reduction in the Project's operational-source NOx emissions. Measure 4, requiring trucks to conform to 2010 emissions standards is

[3] The term feasible is not to be construed as "within the realm of possibilities." The State Resources Agency, the State Agency charged with implementing CEQA's regulatory scheme, has defined feasible, "for purposes of CEQA review, as capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors."

addressed previously at Response JS-4, and is substantiated to be of little or no benefit in reducing Project operational-source NOx emissions. Measures 1-3 offered by the commentor refer to various "Smartway Commitments" with no indication of if or how these commitments would reduce Project operational-source NOx emissions.

Mitigation incorporated in the EIR is governed by rule of reason and feasibility. Public Resources Code Section 21002 establishes that the reason for adopting feasible mitigation measures is to substantially lessen or avoid significant adverse environmental impacts. All feasible mitigation measures that would substantively reduce air quality impacts have been incorporated in the EIR. The commentor offers no feasible measures that would substantively reduce project operational-source NOx emissions. CEQA does not require a project to implement or consider every possible alternative or mitigation measure.

Lastly, it should be recognized that the Project operational-source air quality analyses, consistent with SCAQMD guidance and CalEEMod protocols, necessarily assume that all vehicle trips generated by the Project are "new" trips within the region. In practice, new land use projects (such as the proposed Indian Street Commerce Center Project) tend to redistribute existing trips and emissions sources within the region, rather than generate entirely new trips and emissions. The net effect being an overestimation of likely regional air quality impacts as presented in the DEIR and Project air quality analyses.

Results and conclusions of the EIR are not affected.

Comment JS-6

Health risk impacts from the Project should be modeled along all proposed truck routes for the Project, not merely receptors within 1,000 feet of the Project site. The "source" aka trucks, will pass closer to homes and schools if they travel north from the site. It would be preferable if the Project were developed with curb cutouts and other means to deter trucks from traveling north passed residences on Indian Avenue or Perris Boulevard, and were instead directed south to

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Harley Knox and I-215. Cumulative health risk impacts should be quantified. Health risk impacts should be weighted to account for children at the nearby schools.

Response JS-6

The commentor offers Health Risk Assessment (HRA) modeling protocols other than those employed in the EIR, and suggests that in some manner health risks greater than those identified in the EIR would result. The commentor offers site design suggestions that would in some manner reduce potential health risks. The commentor errs on all accounts. From a general standpoint, the HRA was conducted precisely to protocols promulgated by the SCAQMD. The modeling identifies risk factors from emissions within a hypothetical 100-meter grid surrounding the site. The location of the closest residential, school, and business (worker exposure) are then overlaid within the grid. The modeling outputs therefore identify the risk factor within the grid boundaries and those values are used in the analysis. The precise techniques are detailed within the HRA (page 20), which is presented as Draft EIR Appendix C.

The Draft EIR analysis presents and considers maximum impact scenarios regarding DPM-source impacts at sensitive receptors. The Project Health Risk Assessment reflects potential maximum impacts through assumed concentrated vehicle traffic emissions within the Project site, in combination with area sources. None of the exposures approach the identified thresholds. These combined emissions would exceed any transient emissions from a portion of Project traffic distributed along area roads as suggested by the commentor.

In regard to the use of appropriate school child assumptions, Table 2-3, *Exposure Assumptions for Individual Cancer Risk*, of the HRA (presented in its entirety at Draft EIR Appendix C), notes:

"To represent the unique characteristics of the school-based population, the assessment employed the U.S. Environmental Protection Agency's guidance to develop viable dose estimates based on reasonable maximum exposures (RME). RME's are defined as the

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"highest exposure that is reasonably expected to occur" for a given receptor population. As a result, lifetime risk values for the student population were adjusted to account for an exposure duration of 180 days per year for nine (9) years. The 9 year exposure duration is also consistent with OEHHA Recommendations and consistent with the exposure duration utilized in school-based risk assessments for various schools within the Los Angeles County Unified School District (LAUSD) that have been accepted by the SCAQMD."

The DEIR addresses the Project contributions to cumulative health risk impacts, substantiated to be less-than-significant and not cumulatively considerable (DEIR pp. 4.2-64, 4.2-65) Based on the preceding discussion, the DEIR accurately describes, models, and analyzes Project-specific and cumulative cancer and non-cancer health risks. No revisions are necessary. Nexus of the commentor's suggested "curb cutouts" in reducing DPM-source health risks is at best speculative, and the commentor offers no indication of any measurable reduction in health risks so-achieved. More importantly, the DEIR substantiates that the Project will not result in potentially significant health risks, and modification of the Project design or imposition of mitigation is not required. That is, CEQA does not require mitigation for impacts determined to be less-than-significant.

Results and conclusions of the EIR are not affected.

Comment JS-7

GLOBAL CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS

The EIR concludes that the Project would cause a significant and unmitigated impact to greenhouse gas (GHG) emissions. Yet, the EIR fails to recommend adoption of all feasible mitigation for the Project. "The Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminary estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provider that receives its energy from

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renewable (non-fossil fuel) sources, and provide documentation to this effect to the City." (DEIR p. 1-7.) The Project should be conditioned to install the maximum supported amount of PV. There should be no alternative condition regarding purchasing an equivalent amount of electricity from a utility provider that receives its energy from renewable sources. It is feasible to require this design concept as mitigation and it is also feasible to require both the installation of solar panels and purchase of green energy from the utility company.

The following additional mitigation should also be incorporated to reduce impacts to GHG emissions:

1. All operators on the Project site shall provide electric vehicle (EV) and compressed natural gas (CNG) vehicles in vehicles fleets.

2. Implement a parking fee for single-occupancy vehicle commuters.

3. Charge reduced or no parking fee for EVs and CNG vehicles.

4. Install a minimum of five EV charging stations onsite, at least three of which are DC Fastcharge/Quickcharge, with the remainder meeting at least EVSE Level 2 standards.

5. All buildings shall be constructed to LEED Platinum standards.

6. Require operators/users to implement a parking cash-out program for non-driving employees.

7. Require each user to establish a carpool/vanpool program.

8. Provide subsidies or incentives to employees who use public transit or carpooling, including preferential parking.

9. Provide direct, safe, attractive pedestrian access from Project to transit stops and adjacent development.

10. Provide direct, safe bicycle access to adjacent bicycle routes.

11. Provide showers and lockers for employees bicycling or walking to work.

12. Design and locate buildings to facilitate transit access, e.g. locate building entrances near transit stops, eliminate building setbacks, etc.

13. Provide shuttle service to transit stations/multimodal centers.

14. Install an ozone destruction catalyst on all air conditioning systems.

15. Purchase only green/renewable power from the electric company.

16. Install solar water heating systems to general all hot water requirements.

17. Require the Project to participated in any existing Transportation Management Association (TMA). The TMA will coordinate with other TMAs within the City to encourage and coordinate carpooling among building occupants. If no TMA exists, the Project shall establish a TMA.

Response JS-7

As stated by the commentor, the Draft EIR concludes that the Project will have significant and unavoidable impacts in this regard. As stated at page 53 of the GHG Analysis (presented as Appendix D to the Draft EIR):

"The Project will result in approximately 1,338.22 MTCO2e per year (approximately 11% of total Project GHG emissions) from construction, area, energy, waste, water usage, and on-site emissions. In addition, the Project has the potential to result in an additional 10,816.76 MTCO2e per year (approximately 89% of total Project GHG emissions) from mobile sources..."

Since neither the Project Applicant nor the Lead Agency can substantively or materially affect reductions in Project mobile-source GHG emissions (mobile source emissions sources are regulated by CARB and USEPA), no feasible mitigation to reduce these emissions exists.

The commentor states that the Project should be conditioned to install the "maximum" amount of PV, and that the Lead Agency should not consider or allow other solutions (e.g., obtaining equivalent energy from other clean renewable sources) that may achieve equivalent GHG emissions reductions. The Lead Agency disagrees. Incorporation of solar panels or use of energy from other renewable clean power sources would have substantively the same net effect in reducing GHG emissions. The performance standard would be for the clean energy solution to provide 160,350 kilowatt hours per year. The Lead Agency reserves the prerogative to determine the means to achieve this performance standard. Please refer also to EIR Section 3.0, *Project Description*, relevant discussion excerpted below.

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> The Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provider that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City (DEIR p. 3-19).

The commentor lists numerous other measures that may, in some manner reduce GHG emissions, but offers no evidence or substantiation of the relevance or effectiveness of these measures for the instant Project.

Continuing, in *Santa Clarita Organization for Planning the Environment v. City of Santa Clarita ("SCOPE")* (2011) 197 Cal.App.4th 1042, opponents challenged an EIR, which concluded that the increased GHG emissions associated with Project sources would be significant, and that there were no feasible mitigation measures to reduce the impact to a less-than-significant level. The opponents challenged this latter claim, citing a comprehensive list of suggested mitigation measures for GHG emissions prepared by the California Attorney General's office.

In response, the Court ruled that the city was not required to address the feasibility of each of the numerous measures recommended by the Attorney General, distinguishing cases where courts faulted an agency for not considering specific, potentially feasible measures (see, e.g., 197 Cal.App.4th at 1055 ("Considering the large number of possible mitigation measures . . . as well as the [opponent's admission] that not all measures would be appropriate for every project, it is unreasonable to impose on the city an obligation to explore each and every one.").

The Court's holding in SCOPE is analogous to the Project at issue, where the Project building would be constructed to maximize building efficiency, in accordance with City

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and California Building Code requirements. Additionally, the Project in total would surpass, by a minimum of 5%, incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards), and would incorporate PV power systems (or equivalent measures) further reducing energy consumption and related production of GHG emissions. Project design features and operational programs that would collectively act to reduce GHG emissions are presented in the EIR. Relevant EIR text is excerpted below.

3.4.10 Energy Efficiency/Sustainability

Energy-saving and sustainable design features and operational programs would be incorporated into all facilities developed pursuant to the Project. Notably, the Project in total would provide sustainable design features necessary to achieve a "Certified" rating under the United States Green Building Council's Leadership in Energy & Environmental Design (LEED) programs. The Project also incorporates and expresses the following design features and attributes promoting energy efficiency and sustainability.

- The Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provider that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City.

- All on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines.

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- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:

  - Sidewalks along the Project site's Indian Street frontage would be constructed as part of the Project, and would connect to existing and planned sidewalks to the north and south of the Project site. Facilitating pedestrian access encourages people to walk instead of drive. The Project would not impose barriers to pedestrian access and interconnectivity.

  - Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery vendor truck trips.

- To reduce water demands and associated energy use, development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy).[4] Development proposals within the Project site would also be required to implement the following:

  - Landscaping palette emphasizing drought tolerant plants consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

[4] Reduction of 20% indoor water usage is consistent with the current CalGreen Code performance standards for residential and non-residential land uses. Per CalGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

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- Use of water-efficient irrigation techniques consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

- U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and other plumbing fixtures.

[DEIR pp. 3-19, 3-20]

Notwithstanding the GHG emission reductions that may be achieved by the measures listed above, the preponderance (approximately 89 percent) of Project GHG emissions would be generated by motor vehicles. As an industrial distribution warehouse Project, there are no feasible measures to reduce or restrict the number of vehicles traveling to and from the site to a level where the net increase in GHG emissions would be substantively reduced; or that would reduce GHG emissions below the City's threshold of significance.

In this latter regard, the Court noted further that emissions from vehicle exhaust are controlled by the state and federal government, and were therefore outside the control of the Lead Agency or the Project Applicant. This is consistent with the EIR presentation and analysis of the Project's potential GHG emissions impacts.

In sum, remarks and measures offered by the commentor do not appear to identify any substantive inadequacy within the EIR, and merely suggests the commentor's belief that "something could be done" to reduce GHG emissions. Particularly in light of the Court's ruling in SCOPE, these potential other mitigation measures are not required to be discussed in the DEIR. All feasible mitigation measures to reduce Project GHG emissions have been adequately and appropriately addressed within the DEIR, and no further response is necessary. Results and conclusions of the DEIR are not affected.

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Comment JS-8

BIOLOGICAL RESOURCES

A small number of ornamental pines and Chinaberry trees exist in the southwesterly portion of the Project site. The EIR fails to disclose how and why these trees came to be present onsite and if they have any historic or cultural value.

Response JS-8

The commentor correctly references a portion of the onsite vegetation, and then states: *"[t]he EIR fails to disclose how and why these trees came to be present onsite and if they have any historic or cultural value."* This is incorrect and immaterial. Draft EIR Section 4.7.2.2., *Biologic Setting*, states:

"As a result of routine maintenance and weed abatement activities, undisturbed native plant communities are no longer present within the boundaries of the Project site. The site consists of a heavily disturbed, undeveloped field that is dominated by tumbleweed (*Salsola tragus*). A small number of ornamental pines (*Pinus* sp.) and Chinaberry (*Melia azedarach*) trees are found in the southwestern portion of the Project site."

Determining how or why these trees exist onsite is neither possible, nor necessary. The Draft EIR determined that, due to extensive disturbance of the Project site, no special-status plant species are considered to be present onsite (including the species mentioned by the commentor).

Further, the Cultural Resources Survey (summarized at Draft EIR Section 4.8) references the onsite trees ("Vegetation consisted of short, dry grasses and weeds and a few immature trees." [Draft EIR page 4.8-3]) and determined that the property lacks any evidence of historic or prehistoric archaeological resources and should be considered clear of any such resources.

Results and conclusions of the Draft EIR are not affected; no revisions are necessary.

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Comment JS-9

GEOLOGY AND SOILS

The EIR does not evaluate impacts to geology and soils as a potentially significant Project impact. The Initial Study states, "The Project Geotechnical Study indicates that soils within the Project site have a low expansion potential, but would require attention during Project design and maintenance." (IS p. 3-18) The issues that "require attention" are not discussed or disclosed in the EIR. Additionally, the EIR states, "The Project Geotechnical Study in total indicates that the Project site is not located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project." (DEIR p. 1-15.) Based on the discrepancy between the DEIR and Initial Study and the lack of analysis of the soils with a low expansion potential, the decision to not evaluate geology and soil impacts in greater detail is unsupported.

Response JS-9

The commentor contends that the EIR does not evaluate impacts to geology and soils as a potentially significant Project impact. This is incorrect. Project impacts related to Geology and Soils were determined to be less-than-significant through the Initial Study process. A Project-specific analysis was prepared (*Geotechnical Investigation, Proposed Warehouse Development, Southwest Corner of Indian Avenue and Grove View Road, Moreno Valley, California* [NorCal Engineering] July 21, 2014) for the site.

The text presented by the commentor does not represent a "discrepancy," rather the commentor quotes the EIR incompletely and out of context. The following text is excerpted from the Initial Study (Page 3-18, presented Draft EIR Appendix A):

"The Project Geotechnical Study indicates that soils within the Project site have a low expansion potential, but would require attention during Project design and maintenance (Project Geotechnical Study, p. 15). The Project Geotechnical Study provides Expansive Soils Guidance (Project Geotechnical Study, p. 21) that would ensure the Project would not be affected by any expansive soils that may be encountered in the course of Project development. Further, the Project would be required to comply with the requirements of a final City-approved geotechnical report,

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and applicable provisions of the Uniform Building Code (UBC) and California Building Code (CBC) that would act to minimize any expansive soil concerns that may be encountered. Based on the preceding, the potential for the Project to expose people or structures to potential substantial adverse effects, involving expansive soils is less-than-significant."

Section 8.0, *Conclusions and Recommendations*, of the Geotechnical Study states that "[b]ased upon our evaluations, the proposed development is acceptable from a geotechnical engineering standpoint. By following the recommendations and guidelines set forth in our report, the structures and grading will be safe from excessive settlements under the anticipated design loadings and conditions." The Project would be required to comply with these guidelines, as mandated by the City as part of the Project Building Permit processes.

Based on the preceding discussion, the commentor's assertion that "the decision to not evaluate geology and soil impacts in greater detail is unsupported" is inaccurate. Discussions of geology and soil impacts as presented within the Initial Study and Draft EIR are sufficient to ensure significant impacts in this regard are avoided; no revisions are necessary. Results and conclusions of the EIR are not affected.

Comment JS-10

UTILITIES AND SERVICE SYSTEMS

The EIR does not evaluate impacts to utility and service systems as a potentially significant Project impact. This decision to not evaluate whether sufficient water supplies are available to serve the Project from existing entitlements and resources in detail is not supported.

In January 2014, Governor Edmund G. Brown Jr. declared a drought state of emergency as California entered its four consecutive year of drought. Governor Brown then issued twenty-five percent statewide mandatory water reductions in April 2015. Most recently, Governor Brown issued an additional state order to continue current actions and implement new actions in response to drought conditions. Despite the El Nino weather system bringing a slightly above

average snowpack, the drought will likely continue. Additionally, California has agreed to gradually reduce the state's use of its 4.4 million acre-feet apportionment of the Colorado River by 2017.

While a Water Supply Assessment may not be required pursuant to the Water Code, Project impacts to water supply should nevertheless be assessed in the EIR given drought conditions and the continuing application of use restrictions pursuant to Executive Order.

Response JS-10

The commentor contends that the EIR does not evaluate impacts to utility and service systems as a potentially significant Project impact, specifically referring to potential Project impacts on water supplies. This is incorrect. Water demand is analyzed within Section 3.0, *Environmental Evaluation*, of the Initial Study provided as Draft EIR Appendix A. (Checklist Item XVIII, *Utilities and Service Systems*).

The Eastern Municipal Water District (EMWD) is the primary water purveyor for the City and would provide water service to the Project, and communications with EMWD have begun in this regard. As stated within the Initial Study, water demands of the Project are consistent with, and are anticipated under the EMWD 2010 Urban Water Management Plan (UWMP). That is, the water demand planning reflected in the UWMP takes into account anticipated development of the City pursuant to the General Plan. In this regard, the UWMP reflects and anticipates light industrial development proposed by the Project. Therefore, the Initial Study determined that Project impacts to water demand would be less-than-significant.

In the time since the Initial Study has been completed, EMWD has adopted the updated 2015 UWMP (June 2016), which responds to the conservation efforts referenced by the commentor.

As presented at page xi of the 2015 UWMP, "[i]n addition to significant conservation efforts made since the enactment of SBx7-7, the 2015 UWMP also documents EMWD's

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significant per capita water use reduction as a result of emergency requirements set by the State Water Resources Control Board (SWRCB). In response to California Governor Brown's April 2014 Proclamation declaring severe drought conditions in the state of California, the SWRCB has required water suppliers to reduce water usage statewide. EMWD was assigned a required demand reduction of 28 percent relative to 2013 water usage. This 2015 UWMP documents EMWD's significant per capita water use reduction in response to the SWRCB's water conservation requirements."

Further, page xv of the 2015 UWMP concludes, "EMWD has the ability to meet current and projected water demands through 2040 under normal, historic single-dry and historic multiple-dry year conditions using a combination of imported water from MWD and existing local supply resources."

As illustrated by the preceding text, the UWMP substantiates that there would be sufficient water supplies to meet all EMWD Service Area demands, including water demands of the Project. No revision to the Draft EIR is warranted in this regard. Results and conclusions of the EIR are not affected.

Comment JS-11

ALTERNATIVES

The EIR finds that the Reduced Intensity Alternative, and alternative that would develop 71,420 square feet of general light industrial uses and 285,660 square feet of high cube warehouse/distribution center uses, is the "environmentally superior alternative." Where there is an environmentally superior alternative that significantly decreases the significant impacts of the Project then that alternative must be approved rather than the Project if that alternative is feasible. (Public Resources Code § 21002; Uphold Our Heritage v. Town of Woodside (2007) 147 Cal.App.4th 587, 597; State CEQA Guidelines § 15126.6(b).) The Reduced Intensity Alternative would avoid the Project's GHG impacts and significantly lessen impacts to transportation/traffic and air quality. Thus, this Alternative should be development instead of the Project.

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The EIR states that the Reduced Intensity Alternative would "substantially diminish attainment of three fundamental Project Objectives." (DEIR p. 5-57.) However, this is incorrect as the Alternative would be able to meet the basic objectives of the Project:

- *Implement the City's General Plan through development that is consistent with the General Plan Community Development Element and applicable General Plan Goals, Objectives, Policies and Programs.*

  The Alternative would still implement the City's General Plan by developing the vacant Project site with 71,420 square feet of general light industrial uses and 285,660 square feet of high cube warehouse/distribution center uses, consistent with the current Business Park/Light Industrial General Plan Land Use designation.

- *Implement the Moreno Valley Industrial Area Plan through development that is consistent with the Area Plan land sues and development concepts, and in total supports the Area Plan Vision.*

  The Alternative would implement the Moreno Valley Industrial Area Plan by developing the Project site with 71,420 square feet of general light industrial uses and 285,660 square feet of high cube warehouse/distribution center uses, consistent with the current Industrial Zoning designation under the MVIAP.

- *Establish new development that would increase locally available employment opportunities and would further the City's near-term and long-range fiscal goals and objectives.*

  As the Alternative would develop the currently vacant Project site with manufacturing and high cube warehousing uses, the Alternative would generate new employment beyond what currently exists in the City.

As the Reduced Intensity Alternative all Project objectives and substantially reduce or avoid the significant impacts of the Project, it should be adopted rather than the Project.

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Response JS-11

The commentor correctly states that the Draft EIR identifies the Reduced Intensity Alternative as the environmentally superior alternative. However, the scope and total overall development would be substantively reduced under the Reduced Intensity Alternative. The resulting diminishment of the Project Objectives, including substantive reduction in economic benefits to the City and region, and limited jobs creation would act to substantially reduce the feasibility of this Alternative.

With regard to the contention that the City must adopt the Reduced Intensity Alternative, the key consideration is that alternatives in an EIR must be potentially feasible (CEQA Guidelines, Section 15126.6(a)). Agency decision makers ultimately decide what is "actually feasible." (*California Native Plant Society v. City of Santa Cruz ("CNPS")* (2009) 177 Cal. App. 4th 957, 981). Under CEQA, the concept of "feasibility" also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project. (*Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1506-1509; *CNPS, supra*, 177 Cal. App. 4th at p. 1001; *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165, 1166.) Moreover, "'feasibility' under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors." (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417).

The City of Moreno Valley, as CEQA lead agency, has discretion to approve the project, deny the project, or instead decide to adopt one of the alternatives; however, the City is not legally required to adopt an alternative simply because it is the environmentally superior alternative. The alternatives analysis is presented in an EIR to allow for a comparison between a proposed project and other development scenarios, in order to allow for fully-informed decision-making. Should a lead agency decide to approve a project despite one or more significant and unavoidable environmental impacts, it is permitted to do so by way of adopting a Statement of Overriding Considerations. (CEQA Guidelines Section 15093). Therefore, the City is not required to adopt the

Reduced Intensity Alternative; however, this alternative will be considered by the Planning Commission in light of the EIR and all relevant evidence in the record.

The ultimate decision to approve the Project, an Alternative to the Project, or to deny the Project resides with the Lead Agency. The commentor's remarks are forwarded to the decision makers. Results and conclusions of the EIR are not affected.

Comment JS-12

CONCLUSION

We appreciate the opportunity to offer comments on this Project, and thank you for your consideration of these comments.

Response JS-12

The City appreciates the commentors participation in the CEQA process. Comments provided will be reviewed by the decision-makers during Project deliberations.

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October 6, 2016

Julia Descoteaux, Associate Planner
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Re: Comment on DEIR for the Indian Street Commerce Center Project SCH 2016031036

Dear Ms. Descoteaux and Mr. Brock:

I am writing on behalf of the Laborers International Union of North America, Local Union 1184 and its members living in City of Moreno Valley ("LiUNA" or "Commenters"), regarding Draft Environmental Impact Report ("DEIR") for the the Indian Street Commerce Center Project (SCH 2016031036), including all actions related or referring to the development of the estimated 446,350 square feet of light industrial uses within an approximately 19.64- acre site located approximately one-half mile westerly of Perris Boulevard, bounded by Indian Street to the east and Grove View Road (alignment) as the northerly boundary ("Project"). LD-1

After reviewing the DEIR, we conclude that the DEIR fails as an informational document and fails to impose all feasible mitigation measures to reduce the Project's impacts. Commenters request that the City of Moreno Valley ("City") address these shortcomings in a revised draft environmental impact report ("RDEIR"). LD-2

We reserve the right to supplement these comments during review of the Final EIR for the Project and at public hearings concerning the Project. *Galante Vineyards v. Monterey Peninsula Water Management Dist.*, 60 Cal. App. 4th 1109, 1121 (1997).

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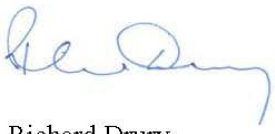
Sincerely,



Richard Drury

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Lozeau Drury LLP
410 12th Street
Oakland, CA 94607

Letter Dated October 6, 2016

Comment LD-1

I am writing on behalf of the Laborers International Union of North America, Local Union 1184 and its members living in City of Moreno Valley ("LiUNA" or "Commenters"), regarding Draft Environmental Impact Report ("DEIR") for the Indian Street Commerce Center Project (SCH 2016031036), including all actions related or referring to the development of the estimated 446,350 square feet of light industrial uses within an approximately 19.64- acre site located approximately one-half mile westerly of Perris Boulevard, bounded by Indian Street to the east and Grove View Road (alignment) as the northerly boundary ("Project").

Response LD-1

Authorship and representation stated are acknowledged. The summary Project description provided is materially correct. Please refer also to DEIR Section 3.0, *Project Description*.

Comment LD-2

After reviewing the DEIR, we conclude that the DEIR fails as an informational document and fails to impose all feasible mitigation measures to reduce the Project's impacts. Commenters request that the City of Moreno Valley ("City") address these shortcomings in a revised draft environmental impact report ("RDEIR").

We reserve the right to supplement these comments during review of the Final EIR for the Project and at public hearings concerning the Project. Galante Vineyards v. Monterey Peninsula Water Management Dist., 60 Cal. App. 4th 1109, 1121 (1997).

Response LD-2

The Commentor provides a summary opinion regarding the need for a revised DEIR. As discussed in the DEIR, the DEIR analysis and conclusions addressing the Project's potential impacts are consistent with applicable CEQA requirements, protocols and methodologies, and are correct and accurate as presented. There is no need to prepare a revised EIR. Results and conclusions of the EIR are not affected.

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SoCal Environmental Justice Alliance
Green Jobs & Clean Communities

October 7, 2016

VIA US MAIL AND EMAIL

City Planning Commission & City Council
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Julia Descoteaux,Associate Planner
juliad@moval.org

SUBJECT: COMMENTS ON INDIAN STREET COMMERCE CENTER

To whom it may concern:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the proposed Indian Street Commerce Center. Please accept and consider these comments on behalf of SoCal Environmental Justice Alliance.

Project Summary

As we understand it, the Indian Street Commerce Center project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. 347,080 square feet of the Project building area would be allocated for distribution warehouse uses; 89,270 square feet would be assigned to manufacturing uses; and 10,000 square feet would be assigned to office uses. The Project does not include a refrigerated/cold storage component. Approximately 35 loading dock doors would be provided along the warehouse's southerly face. SEJA-1

Transportation/Traffic

Section 4.1.2 - Study Area. The DEIR fails to recognize the Freeway Mainline study area in this section. The study area is not introduced until the cumulative impacts are analyzed. The DEIR is misleading by presenting that the source of all traffic will presumably come from the I-215/ Harley Knox Boulevard segment. Likely traffic to and from the project site will come from the 91/I-215 interchange and the 60/I-215 interchange. The 91/I-215 interchange is not considered SEJA-2

at all throughout the DEIR or the TIA. The potential impacts to the 91/I-215 interchange are not analyzed when cumulative impacts could potentially occur at this area. This does not comply with CEQA's requirements for meaningful disclosure.

SEJA-2 (cont'd)

Section 4.1.3 - Level of Service and TIA Methodologies. The TIA and DEIR indicate that regional access will be provided from the I-215 and 60 freeways. The TIA and DEIR fail to consider regional access from the 91 freeway. The 91 freeway is a major transportation corridor providing access to the project site from the ports of Long Beach and Los Angeles. The 91 freeway/I-215 interchange provides access to the project site. The DEIR must be revised to fully analyze the potential impacts the proposed project will have on the 91 freeway, including but not limited to the 91 freeway/I-215 interchange.

SEJA-3

Section 4.1.6.2 - Existing Roadway System. Again, the DEIR and TIA fail to include the 91 freeway in the traffic/transportation analysis. The DEIR and TIA do not fully disclose all regional sources of traffic to the project site, which is likely to have further impacts on the already cumulatively considerable impacts related to traffic. This does not comply with CEQA's requirements for meaningful disclosure.

SEJA-4

Section 4.1.7.2 - Project Trip Distribution. Figures 4.1-6 and 4.1-7 of the DEIR indicate that 30% of passenger car traffic will reach the project site from the I-215/Harley Knox intersection and 20% of passenger car traffic will reach the project site from southbound Indian Street. Indian Street can only be reached by connecting at Perris Boulevard. The Perris Boulevard/60 freeway interchange is not included in the project trip distribution analysis when it has potentially significant impacts to the project trip distribution.

SEJA-5

Section 4.1.9.4 - Impact Statements. The DEIR finds the opening year (2020) with and without project LOS to be deficient at 6 intersections. Mitigation Measures 4.1.1 - payment of fees - is applied to all of the potentially cumulative impacts that follow for opening year roadway segments, and freeway off-ramp queueing. However, the TIA indicates that the following areas are under the jurisdiction of the city of Perris:

ID No. 1 - I-215 SB Ramps/Harley Knox Bl.

ID No. 2 - I-215 NB Ramps/Harley Knox Bl.

ID No. 3 - Western Way / Harley Knox Bl.

ID No. 4 - Patterson Ave. / Harley Knox Bl.

Payment of fees is not an acceptable mitigation measure when the impact is in a jurisdiction beyond the scope of the lead agency. An assessment of fees is appropriate when linked to a specific mitigation program. (Anderson First Coalition v. City of Anderson (2005) 130 Cal.App. 4th 1173, Save our Peninsula Comm. v. Monterey County Bd. Of Supers. (2001) 87 Cal.App.4th 99, 141.) Payment of fees is not sufficient where there is no evidence mitigation will actually result. (Gray v. County of Madera (2008) 167 Cal.App.4th 1099,1122.) The assessment of fees

SEJA-6

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here is not adequate as there is no evidence mitigation will actually result. Mitigation measure 4.1.1 is uncertain and improperly deferred in violation of CEQA.

SEJA-6 (cont'd)

Section 4.2.7.2 - Air Quality Impact Statements - Regional Impacts. The DEIR gives a sample construction schedule. The construction schedule presents the project in phases; however, phased construction is not required of the project. The DEIR does not present any analysis of impacts or potential mitigation measures from potential overlap of construction phases. There is no statement that the construction phases will not occur concurrently. Also, there is no requirement that the Project be completed over a certain number of days given. Construction may occur faster as well, which would result in significantly greater daily impacts.

The DEIR states, "should construction occur any time after the dates presented here, incremental and aggregate construction-source emissions would likely decrease since emission factors for construction equipment would progressively decrease in the future". This statement is misleading and assumes a best-case scenario, which is contrary to CEQA's meaningful disclosure requirement. There is no indication of or requirement for project construction to utilize technology that may or may not exist to reduce emissions. The DEIR continues to state, "This is due to the natural turnover of the older vehicle fleet and replacement with more fuel efficient equipment with enhanced emissions controls; and implementation of more stringent regulations which collectively act to reduce construction-source (and operational-source) emissions." Will the DEIR be recirculated and analyzed if the project goes beyond the construction dates given? Will it be analyzed against the more stringent regulations that do not exist currently? This statement is misleading and presents a scenario that is circumstantial and uncertain.

SEJA-7

Phased construction with clearly defined descriptions of work during each phase must be required of the proposed project in order for the DEIR mitigation measures and projected impacts to be applicable or relevant. These impacts must be disclosed to the public and decision-makers in a fully revised and recirculated EIR in order to comply with CEQA.

HRA: The HRA presented is unduly optimistic in that it places sensitive receptors, apparently, at the opposite end of their property from where the exposure would take place, rather than at their property lines closest to the project site. HRAs are supposed to be conservative and the modeling should have assessed what might have happened to the receptors given their exposure at their property lines. The DEIR also is inadequate as an informational document in that it does not disclose where the receptors were placed for analysis. Where, exactly, were they placed? The same is true for your worker and schoolchild analysis. As to schoolchildren there is absolutely no basis for not modeling exposures at the adjacent El Portero park playground and fields they are likely to use. The same question is obvious: where did you place the children for purposes of your analysis?

SEJA-8

It also does not appear that the HRA used child-specific analysis for the assessment of risks to children; such an assessment should have been done given that studies show reduced lung capacity and increased asthma in children given increased exposure to the pollutants of concern.

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EPA's *Framework for Assessing Health Risk of Environmental Exposures to Children*, which we do not believe the HRA used, 1) provides for a more complete evaluation of the potential for vulnerability at different life stages, including a focus on the underlying biological events and critical developmental periods for incorporating mode of action ("MOA") considerations; 2) evaluates the potential for toxicity after exposure during all developmental life stages; and 3) integrates adverse health effects and exposure information across life stages. The HRA also should not discount the fact that children almost certainly live in the residential community that surrounds the school.

SEJA-8 (cont'd)

Section 4.2.7.2 - Air Quality Impact Statements - Operational Source Emissions. The DEIR indicates that the project will have significant and unavoidable impacts with regards to NOx emissions. MM 4.2.5 does not mitigate the emissions of NOx to levels that are less than significant. The DEIR also details project design features in this section, including that sidewalks will be established along the frontage of the project site, which will encourage people to walk. This project detail is insufficient and misleading as there is no employee walk/biking to work program required to result in fewer passenger car trips to mitigate impacts.

SEJA-9

Section 4.3.4 - Greenhouse Gas Emissions Impact Statements - Project GHG Emissions. The DEIR states that the project's emissions of GHG are significant and unavoidable after mitigation. No mitigation measures are offered other than a reference to project design features and operational programs that would act to "generally reduce Project GHG emissions from area sources, energy sources, and other on-site emissions sources which combined, account for approximately 11 percent of the Project total GHG emissions." How did you quantify the 11 percent reduction? How do you quantify the installation of sidewalks to reduce VMT? What is the correlation between installing sidewalks and reducing VMT when there is no employee bike/ walking program discussed or developed? No further mitigation measures are offered. This is inadequate and the DEIR must offer some mitigation measures beyond potential project design features.

SEJA-10

Further, the DEIR states that the project conflicts with the Scoping Plan as well as Moreno Valley's Energy Efficiency and Climate Action Strategy. There are no mitigation measures discussed here either. The details of how the GHG emissions conflict with both documents is not discussed. This does not meet CEQA's meaningful disclosure requirements.

Section 5.2.1 - Cumulative Impacts Related to Transportation/Traffic. The DEIR states that "traffic generated by other known or probable related projects was then added to the TIA ambient traffic growth estimates. These related projects are in part already accounted for in the assumed annual 2 percent increase in ambient traffic growth noted above; and in certain instances, these related projects would likely not be implemented and functional within the 2020 Opening Year time frame assumed for the Project" The DEIR does not provide a list or map of these projects and significantly downplays the impact the cumulative projects have regarding transportation and traffic. There is a map of the cumulative projects buried in the Transportation Impact Analysis as Table 4-4, but the numbers of the projects listed overlap and are difficult to read,

SEJA-11

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which makes that map largely useless. Further, burying this information in an Appendix does not comport with the informational and public disclosure purposes of CEQA.

SEJA-11 (cont'd)

Section 5.2.2.6 – Cumulative Impact Analysis. Here you refer to a list of cumulative projects related to TAC emissions impacts. You do not provide a map of those cumulative projects. This does not comply with CEQA's requirements for meaningful disclosure.

SEJA-12

SoCal Environmental Justice Alliance believes the DEIR for the proposed project fails to comply with CEQA and must be substantially supplemented, amended, and recirculated before the reviewing bodies make a recommendation or decision on the proposed project. The Alliance encourages the city to require the DEIR to address the Environmental Justice Element as outlined in the California General Plan Guidelines and give the Element the same weight as the mandatory elements of the General Plan.

For these reasons, SCEJA respectfully requests the need for this Project's DEIR to be substantially supplemented, amended, and recirculated and the City's denial to certify this DEIR. SoCal Environmental Justice Alliance requests to be notified via email at socaleja@gmail.com regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project.

SEJA-13

Sincerely,

Joe Bourgeois
Chairman of the Board
SoCal Environmental Justice Alliance

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SoCal Environmental Justice Alliance
No Address Listed

Letter Dated October 7, 2016

Comment SEJA-1

As we understand it, the Indian Street Commerce Center project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. 347,080 square feet of the Project building area would be allocated for distribution warehouse uses; 89,270 square feet would be assigned to manufacturing uses; and 10,000 square feet would be assigned to office uses. The Project does not include a refrigerated/cold storage component. Approximately 35 loading dock doors would be provided along the warehouse's southerly face.

Response SEJA-1

The summary of Project uses and total acreage to be developed, as stated by the commentor, is materially correct. The detailed Project Description is presented at Draft EIR Section 3.0.

Comment SEJA-2

Section 4.1.2 - Study Area. The DEIR fails to recognize the Freeway Mainline study area in this section. The study area is not introduced until the cumulative impacts are analyzed. The DEIR is misleading by presenting that the source of all traffic will presumably come from the 1-215/Harley Knox Boulevard segment. Likely traffic to and from the project site will come from the 91/1-215 interchange and the 60/1-215 interchange. The 91/1-215 interchange is not considered at all throughout the DEIR or the TIA. The potential impacts to the 91/1-215 interchange are not analyzed when cumulative impacts could potentially occur at this area. This does not comply with CEQA's requirements for meaningful disclosure.

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Response SEJA-2

The commentor notes that specific listing of freeway segments is not identified as part of the Study Area. As a matter of clarification, freeway segments evaluated in the Project TIA Supplemental Analysis is added to the DEIR text, as presented in Section 2.0, *Revisions and Errata Corrections*.

Since the Project would not contribute 50 or more peak hour trips to the SHS under Existing + Project conditions, a detailed discussion of Project-specific impacts to the SHS is not required. The commentor correctly states that the findings of the Project Mainline Freeway Segment Analysis (presented as Draft EIR Appendix B) is summarized within the discussions of cumulative impacts, versus within the discussion of the Project-specific Study Area.

Under Opening Year Cumulative (2020) conditions, traffic growth along the SR-91 and I-215 Freeway is anticipated to exceed the capacity of existing lanes, and would thus result in a deficient level of service (LOS) for select freeway mainline segments. Notwithstanding, the addition of Project Traffic is not anticipated to result in any new deficiencies. The Project is anticipated to contribute no more than 25 peak hour one-way trips to the deficient freeway mainline segments. As determined by the Draft EIR, there are no feasible mitigation measures that would be in place to reduce the deficient freeway mainline segments under Opening Year Cumulative traffic conditions, and therefore the Draft EIR correctly states that the Project's contribution to these deficient segments is a cumulatively significant and unavoidable impact.

Since the only freeway mainline impacts are cumulative, the Draft EIR correctly presents this analysis within the discussion of cumulative impacts.

The commentor speculates on Project traffic distribution within the Study Area freeway facilities and states that "[l]ikely traffic to and from the project site will come from the 91/1-215 interchange and the 60/1-215 interchange. The 91/1-215 interchange is not considered at all throughout the DEIR or the TIA. The potential impacts to the 91/1-215 interchange are not analyzed when cumulative impacts could potentially occur at this

area. This does not comply with CEQA's requirements for meaningful disclosure." Commentor statements in these regards are incorrect and unsupported.

Specifically, the scope and parameters of the TIA were developed in consultation with the Lead Agency. Approximately 90 percent of the inbound truck trips are expected to come via SR-60 to I-215 southbound and approximately 5 percent of the trick trips are expected to come to the site directly from SR-60 (see TIA Section 4.2, *Project Trip Distribution*). The TIA also acknowledges that outbound trucks are anticipated to be distributed throughout the region, including but not limited to the 91 freeway. However, the amount of Project traffic estimated at the 60/I-215 and 91/I-215 interchanges is expected to be less than 50 peak hour trips, and thus not subject to analysis per City protocols.[5] Please refer also to Response SEJA-3.

Based on the preceding, revision of the Draft EIR is not required. Results and conclusions are not affected.

Comment SEJA-3

Section 4.1. 3 -Level of Service and TIA Methodologies. The TIA and DEIR indicate that regional access will be provided from the I-215 and 60 freeways. The TIA and DEIR fail to consider regional access from the 91 freeway. The 91 freeway is a major transportation corridor providing access to the project site from the ports of Long Beach and Los Angeles. The 91 freeway/I-215 interchange provides access to the project site. The DEIR must be revised to fully analyze the potential impacts the proposed project will have on the 91 freeway, including but not limited to the 91 freeway/I-215 interchange.

Response SEJA-3

The scope and parameters of the TIA were developed in consultation with the Lead Agency. Approximately 90 percent of the inbound truck trips are expected to come via

5 The "50 or more peak hour trips" intersection analytic protocol stipulated in the City Traffic Study Guidelines is consistent with standard industry practice. It is noted further that the 50 peak hour trip threshold is employed by other agencies throughout southern California including Caltrans, County of Riverside, County of San Bernardino, and the County of Orange.

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SR-60 to I-215 southbound and approximately 5 percent of the trick trips are expected to come to the site directly from SR-60 (see TIA Section 4.2, *Project Trip Distribution*). The TIA also acknowledges that outbound trucks are anticipated to be distributed throughout the region, including but not limited to the 91 freeway. However, the amount of traffic estimated to utilize the 91 freeway and interchanges along the 91 freeway is anticipated to be less than 50 peak hour trips. The TIA acknowledges that outbound trucks are anticipated to be distributed throughout the region, including but not limited to the 91 freeway. However, the amount of Project traffic estimated at the 91/I-215 interchange would less than 50 peak hour trips, and thus not subject to analysis per City protocols.[6] Please refer also to Response SEJA-2.

The Draft EIR correctly states:

> "Caltrans has established level of service (LOS) "D" as the minimum acceptable mainline freeway segment operational condition within the Study Area. Employing this threshold, the addition of Project traffic would result in a less-than-significant traffic impact on the analysis segments for Existing Plus Project traffic conditions. Opening Year Cumulative (2020) traffic growth along the SR-91 and I-215 Freeway is anticipated to exceed the capacity of existing lanes, and would thus result in deficient LOS conditions for seven Study Area freeway mainline segments under Opening Year Cumulative (2020) traffic conditions (please refer to Table 4.1-11, below). The addition of Project traffic would not, however, result in any new freeway segment deficiencies. The Project is anticipated to contribute no more than 25 peak hour one-way trips to the deficient freeway mainline segments."

6 The "50 or more peak hour trips" intersection analytic protocol stipulated in the City Traffic Study Guidelines is consistent with standard industry practice. It is noted further that the 50 peak hour trip threshold is employed by other agencies throughout southern California including Caltrans, County of Riverside, County of San Bernardino, and the County of Orange.

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As such (and as mentioned previously), further analysis along this route including freeway interchanges is not necessary pursuant to Lead Agency and Caltrans guidance. Revision of the Draft EIR is not required; results and conclusions are not affected.

Comment SEJA-4

Section 4.1.6.2 - Existing Roadway System. Again, the DEIR and TIA fail to include the 91 freeway in the traffic/transportation analysis. The DEIR and TIA do not fully disclose all regional sources of traffic to the project site, which is likely to have further impacts on the already cumulatively considerable impacts related to traffic. This does not comply with CEQA's requirements for meaningful disclosure.

Response SEJA-4

The commentor again incorrectly asserts necessary analysis of the 91 freeway. Please refer to Response SEJA-3, presented above.

Comment SEJA-5

Section 4.1.7.2 - Project Trip Distribution. Figures 4.1-6 and 4.1-7 of the DEIR indicate that 30% of passenger car traffic will reach the project site from the I-215/Harley Knox intersection and 20% of passenger car traffic will reach the project site from southbound Indian Street. Indian Street can only be reached by connecting at Perris Boulevard. The Perris Boulevard/60 freeway interchange is not included in the project trip distribution analysis when it has potentially significant impacts to the project trip distribution.

Response SEJA-5

The commentor incorrectly asserts that potential impacts of Project traffic at Perris Boulevard/60 freeway interchange are required in the trip distribution analysis. As previously mentioned, and presented at Draft EIR Section 4.1.2.1, *Study Area Intersections*, the City of Moreno Valley *Traffic Impact Analysis Preparation Guide* (City TIA Preparation Guide) requires the analysis of all intersections at which a proposed project is anticipated to contribute 50 or more peak hour trips. The "50 or more peak hour trips" intersection analytic protocol stipulated in the City TIA Preparation Guide

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is consistent with standard industry practice. The 50 peak hour trip analytic protocol is employed by other agencies throughout southern California including Caltrans, County of Riverside, County of San Bernardino, and the County of Orange.

The Project TIA acknowledges (at Section 4.2, *Trip Distribution)* that the Project is anticipated to send both passenger car and truck traffic east on Nandina Avenue and east on Grove View Road (which then connect to Indian Street, Perris Boulevard, and eventually the Perris Boulevard/60 freeway interchange, as referenced by the commentor). In fact, a total of four total trucks are anticipated to head west on Nandina and/or Grove View Road during the peak hour and only 28 passenger cars are distributed in that direction during the peak hour period. Therefore, these intersections were not studied further as the Project is anticipated to contribute less than 50 peak hour trips. As such, revision of the EIR is not required; results and conclusions of the EIR are not affected.

Comment SEJA-6

Section 4.1.9.4 - Impact Statements. The DEIR finds the opening year (2020) with and without project LOS to be deficient at 6 intersections. Mitigation Measures 4.1.1 -payment of fees – is applied to all of the potentially cumulative impacts that follow for opening year roadway segments, and freeway off-ramp queueing. However, the TIA indicates that the following areas are under the jurisdiction of the city of Perris:

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ID No. 2 - I-215 NB Ramps/Harley Knox Bl.
ID No. 3 - Western Way/Harley Knox Bl.
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Payment of fees is not an acceptable mitigation measure when the impact is in a jurisdiction beyond the scope of the lead agency. An assessment of fees is appropriate when linked to a specific mitigation program. (Anderson First Coalition v. City of Anderson (2005) 130 Cal.App.4th 1173, Save our Peninsula Comm. v. Monterey County Bd. Of Supers. (2001) 87 Cal.App.4th

99, 141.) Payment of fees is not sufficient where there is no evidence mitigation will actually result. (Gray v. County of Madera (2008) 167 Cal.App.4th 1099, 1122.) The assessment of fees here is not adequate as there is no evidence mitigation will actually result. Mitigation measure 4.1.1 is uncertain and improperly deferred in violation of CEQA.

Response SEJA-6

The commentor incorrectly reads and interprets the EIR significance conclusions regarding payment of fees and impact significance. The identified significant impacts include the extra-jurisdictional facilities noted by the commentor. Because the Lead Agency does not have plenary control over extra-jurisdictional traffic facilities, a fee payment mechanism [Draft EIR Mitigation Measure 4.1.1] noted by the commentor is incorporated to ensure Project mitigation responsibilities for contributions to impacts at extra-jurisdictional traffic facilities are fulfilled. However, contrary to the commentor's inferences, Project fee payments are not considered to reduce impacts to levels that would be less-than-significant.

In this regard, the Draft EIR clearly states:

> *Project mitigation responsibilities for incremental contributions to cumulative traffic impacts affecting Study Area facilities are fulfilled by payment of requisite traffic impact fees that would be assigned to the construction of necessary improvements. Notwithstanding, payment of traffic impact fees does not ensure timely completion of those traffic improvements necessary to mitigate potentially significant cumulative traffic impacts affecting the Study Area. In these instances, Project traffic impacts would not be individually significant, but would however be considered cumulatively significant. Pending completion of required improvements, the Project's contributions to cumulative traffic impact deficiencies identified within this Section are therefore cumulatively considerable and the identified cumulative impacts are significant and unavoidable" (DEIR p. 4.1-1, 4.1-2, et al.)*

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Thus, while the physical improvements identified in the EIR may be capable of mitigating potentially significant impacts, these improvements cannot be assured. Moreover, there are not any plans to improve the affected facilities within the Project's estimated opening date, and the City of Moreno Valley does not have an existing agreement with extra-jurisdictional agencies regarding the improvement or timing of improvements at locations along, or beyond the City of Moreno Valley corporate boundaries.

The commentor's assertion that Mitigation Measure 4.1.1 is "uncertain" is incorrect. The measure ensures that fees required of the Project will be paid. However, the Draft EIR correctly concludes that, even with the payment of fees, these impacts are considered cumulatively significant and unavoidable. Results and conclusions of the EIR are not affected.

Comment SEJA-7

Section 4.2.7.2- Air Quality Impact Statements- Regional Impacts. The DEIR gives a sample construction schedule. The construction schedule presents the project in phases; however, phased construction is not required of the project. The DEIR does not present any analysis of impacts or potential mitigation measures from potential overlap of construction phases. There is no statement that the construction phases will not occur concurrently. Also, there is no requirement that the Project be completed over a certain number of days given. Construction may occur faster as well, which would result in significantly greater daily impacts.

The DEIR states, "should construction occur any time after the dates presented here, incremental and aggregate construction-source emissions would likely decrease since emission factors for construction equipment would progressively decrease in the future". This statement is misleading and assumes a best-case scenario, which is contrary to CEQA's meaningful disclosure requirement. There is no indication of or requirement for project construction to utilize technology that may or may not exist to reduce emissions. The DEIR continues to state, "This is due to the natural turnover of the older vehicle fleet and replacement with more fuel efficient equipment with enhanced emissions controls; and implementation of more stringent regulations which collectively act to reduce construction-source (and operational-source)

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emissions." Will the DEIR be recirculated and analyzed if the project goes beyond the construction dates given? Will it be analyzed against the more stringent regulations that do not exist currently? This statement is misleading and presents a scenario that is circumstantial and uncertain.

Phased construction with clearly defined descriptions of work during each phase must be required of the proposed project in order for the DEIR mitigation measures and projected impacts to be applicable or relevant. These impacts must be disclosed to the public and decision makers in a fully revised and recirculated EIR in order to comply with CEQA.

Response SEJA-7

While the commentor's assertions regarding phasing would be applicable if the Project were indeed a phased development (such as the construction of several different components and uses, to be constructed over an extended period of time, as would be the case in a Specific Plan for example). The Project proposal is a single building within a relatively limited site. The phases referenced within the Draft EIR are simply the logical progression of the construction process, such as site preparation, grading, building construction, architectural coatings, and paving. Each step in this progression requires completion of the previous construction phase.

The commentor states: "The DEIR does not present any analysis of impacts or potential mitigation measures from potential overlap of construction phases. There is no statement that the construction phases will not occur concurrently. Also, there is no requirement that the Project be completed over a certain number of days given. Construction may occur faster as well, which would result in significantly greater daily impacts."

The construction schedule, equipment use, and progression of work within the site reflects typical construction schedules for similar projects and is consistent with accepted SCAQMD CalEEMod emissions modeling protocols. SCAQMD is the Responsible Agency for air quality considerations for the City and the Project; has reviewed the Project air quality construction modeling, and has offered no criticism or

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comment on the modeling. The commentor speculates that the construction "may occur faster," resulting in greater daily impacts. There is no evidence or indication that Project construction would occur other than is anticipated in the EIR. Absent further evidence to the contrary, the Lead Agency considers the EIR analysis of Project construction-source air quality impacts to be accurate and adequate. Results and conclusions of the EIR are not affected.

The commentor goes on to state that the construction analysis "assumes a best-case scenario." The commentor misunderstands the referenced Draft EIR text. Draft EIR page 4.2-32 states:

> "Air pollutant emissions based on the construction schedule presented here represents a "worst-case" analysis scenario. That is, should construction occur any time after the dates presented here, incremental and aggregate construction-source emissions would likely decrease since emission factors for construction equipment would progressively decrease in the future. This is due to the natural turnover of the older vehicle fleet and replacement with more fuel efficient equipment with enhanced emissions controls; and implementation of more stringent regulations which collectively act to reduce construction-source (and operational-source) emissions."

The excerpted text is simply stating that the Project has been evaluated based on current construction equipment emissions requirements. Moving forward, such requirements would only become more stringent. If the Project were to experience significant delays prior to construction, the Project would be required (by State law) to comply with emissions requirements in place at the time of construction. Additionally, a delayed Project could mean the use of newer, more efficient construction equipment. Regardless, future emissions under all scenarios would likely be less significant, and no more significant, than the peak emissions impacts analyzed within the Draft EIR. The EIR in no instances takes credit for potential emissions reductions that may be realized at a future date because of more stringent regulations, use of more efficient equipment

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etc. Contrary to the commentor's assertion, the construction-source modeling conducted as part of the Draft EIR presents a worst case scenario. Results and conclusions of the EIR are not affected.

Comment SEJA-8

HRA: The HRA presented is unduly optimistic in that it places sensitive receptors, apparently, at the opposite end of their property from where the exposure would take place, rather than at their property lines closest to the project site. HRAs are supposed to be conservative and the modeling should have assessed what might have happened to the receptors given their exposure at their property lines. The DEIR also is inadequate as an informational document in that it does not disclose where the receptors were placed for analysis. Where, exactly, were they placed? The same is true for your worker and schoolchild analysis. As to schoolchildren there is absolutely no basis for not modeling exposures at the adjacent El Portero park playground and fields they are likely to use. The same question is obvious: where did you place the children for purposes of your analysis?

It also does not appear that the HRA used child-specific analysis for the assessment of risks to children; such an assessment should have been done given that studies show reduced lung capacity and increased asthma in children given increased exposure to the pollutants of concern. EPA's Framework for Assessing Health Risk of Environmental Exposures to Children, which we do not believe the HRA used, 1) provides for a more complete evaluation of the potential for vulnerability at different life stages, including a focus on the underlying biological events and critical developmental periods for incorporating mode of action ("MOA") considerations; 2) evaluates the potential for toxicity after exposure during all developmental life stages; and 3) integrates adverse health effects and exposure information across life stages. The HRA also should not discount the fact that children almost certainly live in the residential community that surrounds the school.

Response SEJA-8

The commentor incorrectly interprets and misapplies HRA modeling protocols. Resulting conclusions regarding the EIR HRA are accordingly incorrect. From a general standpoint, the HRA was conducted precisely to protocols promulgated by the

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SCAQMD. The modeling identifies risk factors from emissions within a hypothetical 100-meter grid surrounding the site. The location of the closest residential, school, and business (worker exposure) are then overlaid within the grid. The modeling outputs therefore identify the risk factor within the grid boundaries and those values are used in the analysis. The precise techniques are detailed within the HRA (page 20), which is presented as Draft EIR Appendix C.

At the maximally exposed individual receptor, the maximum incremental cancer risk attributable to Project DPM sources was estimated to be 0.21, which is considerably less than the threshold of 10 in one million. At the same location, non-cancer risks were estimated to be 0.0001, also considerable lower than the applicable threshold of 1. Based on the modeling, these exact results occur anywhere within the 100 meter grid box. The same applies to the worker and school child receptors. These risks factors are all well below the identified thresholds and therefore arguing about precision within the grid box would not alter the modeling results. None of the exposures approach the identified thresholds.

The locations of all individual receptors, workers, and school children are illustrated at Draft EIR Figures 4.2-2 through 4.2-4. These graphics illustrate the locations of all receptors measured, as well as identifying the maximally exposed receptor under each category. Additionally, HRA Section 2.6 specifically identifies the locations of the maximally exposed receptors:

- Individual Receptor: existing residential home situated approximately 3,171 feet southwest of the Project site on Nevada Avenue;
- Worker Receptor: iHerb Inc. Warehouse Distribution Center located at 17825 Indian Street; and
- School Child Receptor: El Potrero Preschool located at 16820 Via Pamplona.

In regard to the use of appropriate school child assumptions, Table 2-3, *Exposure Assumptions for Individual Cancer Risk*, of the HRA (presented in its entirety at Draft EIR Appendix C), notes:

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> "To represent the unique characteristics of the school-based population, the assessment employed the U.S. Environmental Protection Agency's guidance to develop viable dose estimates based on reasonable maximum exposures (RME). RME's are defined as the "highest exposure that is reasonably expected to occur" for a given receptor population. As a result, lifetime risk values for the student population were adjusted to account for an exposure duration of 180 days per year for nine (9) years. The 9 year exposure duration is also consistent with OEHHA Recommendations and consistent with the exposure duration utilized in school-based risk assessments for various schools within the Los Angeles County Unified School District (LAUSD) that have been accepted by the SCAQMD."

While the commentor is surely correct in the assertion that children "almost certainly live in the residential community that surrounds the school," the HRA correctly used residential receptors located nearer the Project site, as illustrated at Draft EIR Figure 4.2-2.

Based on the preceding discussion, the HRA accurately describes, models, and analyzes Project cancer and non-cancer health risks. No revisions are necessary. Results and conclusions of the EIR are not affected.

Comment SEJA-9

Section 4.2.7.2 - Air Quality Impact Statements - Operational Source Emissions. The DEIR indicates that the project will have significant and unavoidable impacts with regards to NOx emissions. MM 4.2.5 does not mitigate the emissions of NOx to levels that are less than significant. The DEIR also details project design features in this section, including that sidewalks will be established along the frontage of the project site, which will encourage people to walk. This project detail is insufficient and misleading as there is no employee walk/biking to work program required to result in fewer passenger car trips to mitigate impacts.

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Response SEJA-9

The commentor states ". . .Project detail is insufficient and misleading as there is no employee walk/biking to work program required to result in fewer passenger car trips to mitigate NOx impacts." The commentor incorrectly interprets the EIR.

The commentor correctly states that Mitigation Measure 4.2.5 "does not mitigate the emissions of NOx to levels that are less than significant." To this end, the Draft EIR concludes that regional operational NOx emissions would be a significant and unavoidable impact of the Project. The Draft EIR further notes that approximately 98 percent of all operational-source emissions (by weight) would be generated by Project mobile sources (traffic). Neither the Project Applicant nor the Lead Agency can substantively or materially affect reductions in Project mobile-source emissions.

Mobile-source vehicle tail pipe emissions cannot be materially or feasibly controlled or mitigated by the Lead Agency or the Project Applicant. Rather, these emissions sources are regulated by CARB and USEPA. As the result of CARB and USEPA actions, Basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve. Future CARB and USEPA actions could be expected to have a positive effect on Project-related vehicular-source emissions, resulting in incremental reductions in vehicular-source emissions when compared to either the Project AQIA emissions estimates.

The Draft EIR is an informational document intended to apprise decision-makers and the general public of Project characteristics, as well as potentially significant environmental impacts associated with the Project. To this end, the Draft EIR presents Project features that may help to reduce the identified significant emission exceedances. However, no emission reductions or credits based on these features are taken, nor are they presented as mitigation. How the commentor misconstrues this level of detail as "misleading" is not understood. Revision of the EIR is not required; results and conclusions of the EIR are not affected.

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Comment SEJA-10

Section 4.3.4 - Greenhouse Gas Emissions Impact Statements -Project GHG Emissions. The DEIR states that the project's emissions of GHG are significant and unavoidable after mitigation. No mitigation measures are offered other than a reference to project design features and operational programs that would act to "generally reduce Project GHG emissions from area sources, energy sources, and other on-site emissions sources which combined, account for approximately 11 percent of the Project total GHG emissions." How did you quantify the 11 percent reduction? How do you quantify the installation of sidewalks to reduce VMT? What is the correlation between installing sidewalks and reducing VMT when there is no employee bike/walking program discussed or developed? No further mitigation measures are offered. This is inadequate and the DEIR must offer some mitigation measures beyond potential project design features.

Further, the DEIR states that the project conflicts with the Scoping Plan as well as Moreno Valley's Energy Efficiency and Climate Action Strategy. There are no mitigation measures discussed here either. The details of how the GHG emissions conflict with both documents is not discussed. This does not meet CEQA's meaningful disclosure requirements.

Response SEJA-10

The commentor misunderstands the GHG analysis in general, and the referenced "11 percent" text specifically. The cited text is not referencing an 11 percent reduction in GHG emissions; rather it is stating that area source, energy source, and other on-site emissions sources account of 11 percent of the total Project GHG emissions. As stated at page 53 of the GHG Analysis (presented as Appendix D to the Draft EIR):

> "The Project will result in approximately 1,338.22 MTCO2e per year (approximately 11% of total Project GHG emissions) from construction, area, energy, waste, water usage, and on-site emissions. In addition, the Project has the potential to result in an additional 10,816.76 MTCO2e per year (approximately 89% of total Project GHG emissions) from mobile sources..."

Since neither the Project Applicant nor the Lead Agency can substantively or materially affect reductions in Project mobile-source GHG emissions (mobile source emissions sources are regulated by CARB and USEPA), no feasible mitigation to reduce these emissions exists, and the Draft EIR correctly concludes that this is a significant and unavoidable impact of the Project. The commentor offers no mitigation that would reduce GHG emissions.

In regards to the Project features listed within the discussion, the Draft EIR simply lists them for informational purposes to apprise decision-makers and the general public of Project characteristics that may help to reduce the identified significant emission exceedances. Emission reductions or credits based on these features if any are consistent with CalEEMod protocols.

The commentor incorrectly states that the Draft EIR does not present a discussion of how the Project would conflict with the Scoping Plan. In point of fact, page 4.3-36 of the Drat EIR contains the following text:

> **"GHG Emissions are Potentially Significant in Context of CARB AB32 Scoping Plan Emissions Reductions Targets**
> To further evaluate the potential significance of Project GHG emissions, GHG emissions that would be generated pursuant to development of the Project are compared with GHG emissions targets established under the CARB AB32 Scoping Plan (Scoping Plan). The Scoping Plan provides for a 28.5% reduction in statewide and local GHG emissions by the year 2020, when compared to projected GHG emissions that would result from a continuing year 2005 "Business As Usual" (BAU) Scenario.
>
> As indicated at Table 4.3-5, Project GHG emissions would be reduced by approximately 23.08% when compared to the 2005 BAU scenario; and would not achieve the 28.5% GHG emissions reduction targets established under the Scoping Plan. The GHG emissions reductions targets established under the Scoping Plan are intended to reduce GHG emissions

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> so as to minimize or preclude significant environmental impacts. Project inconsistency with the Scoping Plan GHG emissions reduction targets would therefore result in levels of greenhouse gas emissions that may either directly or indirectly have a significant impact on the environment. This is a potentially significant cumulative impact."

Regarding consistency with the City of Moreno Valley Climate Action Strategy (CAS), the City of Moreno Valley CAS GHG emissions reduction target is predicated on AB 32 Scoping Plan GHG emissions reductions target. The fact that the Project would not achieve the AB 32 GHG Scoping Plan emissions reductions target leads to the conclusion that the Project would likewise not achieve the CAS GHG emissions reductions target. As matter of clarification, the text at EIR p. 4.3-38 is amended accordingly.

The Project is otherwise consistent with applicable CAS policies as substantiated within the Project GHG Analysis (EIR Appendix D, Section 2.10) as summarized below.

- Policy R2-T1: Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.

Project consistency: Not applicable.

- Policy R2-T3: Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.

Project consistency: Consistent. Trip reductions are part of the Project's design features.

- Policy R2-E1: New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards. (Reach Code)

Project consistency: Not applicable; this measure applies to residential projects.

- Policy R2-E2: New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (photovoltaic) panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources offsite.

Project consistency: Not applicable; this measure applies to residential projects.

- Policy R2-E5: New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10% beyond the 2008 Title 24 standards (which were in effect at the time the CAP was adopted). (Reach Code)

Project consistency: Consistent; Current 2013 Title 24 requirements would achieve greater reduction than envisioned by the City's Climate Action Strategy. Further, the Project would be required to comply with any adopted municipal code requirements set forth by the City of Moreno Valley. As such, the Project would be consistent with R2-E5.

- Policy R3-E1: Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy efficient projects.

Project consistency: Not applicable on a project-level.

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- Policy R3-L2: Heat Island Plan. Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.

Project consistency: Consistent; the Project will comply with the City of Moreno Valley's landscaping requirements.

- Policy R2-W1: Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal, which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.

Project consistency: Consistent. California Green Building Standards Code, Chapter 5, Division 5.3, Section 5.303.2 requires that indoor water use be reduced by 20 percent. Section 5.304.3 requires irrigation controllers and sensors. Water conservation is part of the Project's design features.

- Policy R3-W1: Water Efficiency Training and Education. Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.

Project consistency: Not applicable at a project-level.

- Policy R2-S1: City Diversion Program. For Solid Waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.

Project consistency: Consistent; the Project will comply with the City of Moreno Valley's citywide goal of solid waste reduction. Additionally, the Project will be compliant with the City of Moreno Valley's Municipal Code 8.80.030 by implementing a Waste Management Plan.

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It should also be noted that the CAS does not set forth a numerical Project-level threshold, only measures to be implemented to reduce energy and water consumption and greenhouse gas emissions. The preceding text illustrates that the Project is consistent with the applicable Policies presented within the CAS.

Contrary to the commentor's assertions otherwise, the above response and the EIR in total substantiate and demonstrate compliance with CEQA adequacy and informational requirements. Results and conclusions of the EIR are not affected.

Comment SEJA-11

Section 5.2.1 - Cumulative Impacts Related to Transportation/ Traffic. The DEIR states that "traffic generated by other known or probable related projects was then added to the TIA ambient traffic growth estimates. These related projects are in part already accounted for in the assumed annual 2 percent increase in ambient traffic growth noted above; and in certain instances, these related projects would likely not be implemented and functional within the 2020 Opening Year time frame assumed for the Project" The DEIR does not provide a list or map of these projects and significantly downplays the impact the cumulative projects have regarding transportation and traffic. There is a map of the cumulative projects buried in the Transportation Impact Analysis as Table 4-4, but the numbers of the projects listed overlap and are difficult to read, which makes that map largely useless. Further, burying this information in an Appendix does not comport with the informational and public disclosure purposes of CEQA.

Response SEJA-11

The commentor statements are incorrect and misleading. The commentor fails to include the entire paragraph of excerpted text, leaving out an important detail. The actual text reads:

> "Traffic generated by other known or probable related projects was then added to the TIA ambient traffic growth estimates. These related projects are in part already accounted for in the assumed annual 2 percent increase in ambient traffic growth noted above; and in certain instances these related projects would likely not be implemented and functional within

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> the 2020 Opening Year time frame assumed for the Project. *The resultant assumed traffic growth rate employed in the TIA (2 percent annual ambient growth + traffic generated by all related projects) would therefore tend to overstate rather than understate background cumulative traffic impacts under 2020 conditions.* [emphasis added]"

The emphasized text explains that while the related projects are in part already accounted for in the assumed annual 2 percent increase in ambient traffic growth, they were added to the ambient growth rate anyway, thus overstating cumulative traffic impacts. No deduction in assumed traffic was taken.

Contrary to the commentor's suggestion that the role of cumulative development was "downplayed," the analysis of related projects was an integral TIA component and was conducted in consultation with the Lead Agency. The cumulative project list was developed for this purpose based on information provided by City planning and engineering staff. The cumulative project list includes known and foreseeable projects that are anticipated to contribute traffic to the study area intersections. Adjacent jurisdictions of the County of Riverside, March Joint Powers Authority (JPA), City of Riverside, and the City of Perris were also contacted to obtain the most current list of cumulative projects from their respective jurisdictions. The correspondence and cumulative projects provided by each of the applicable jurisdictions are provided at TIA Appendix 4.1. In total, the TIA identified 262 related projects for inclusion within the analysis.

In response to the commentor's assertion that information was "buried" within the technical analyses, it is noted that the Draft EIR body text intentionally summarizes the information provided within the technical analyses, and appropriately focuses on identification, disclosure, and mitigation of the Project's potentially significant impacts. *Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR* (*CEQA Guidelines*, Section 15147. TECHNICAL DETAIL). Surely, a

comprehensive listing of all 262 related projects is considered "supporting information."

Revision of the EIR is not required; results and conclusions of the EIR are not affected.

Comment SEJA-12

Section 5.2.2.6 - Cumulative Impact Analysis. Here you refer to a list of cumulative projects related to TAC emissions impacts. You do not provide a map of those cumulative projects. This does not comply with CEQA's requirements for meaningful disclosure.

Response SEJA-12

The commentor incorrectly states that the DEIR does not provide meaningful disclosure of cumulative TAC impacts. DEIR Section 5.2.2.6 provides a complete listing of all cumulative projects that were considered within the Mobile Source Diesel Health Risk Assessment (HRA) prepared for the Project. That Section goes on to summarize the findings of the HRA, which is provided in its entirety at Draft EIR Appendix C. Consistent with *CEQA Guidelines*, supporting information, such as a location map of all cumulative projects can be found at Exhibit 2-E, *Cumulative Development Within One-Quarter Mile of the Project and Primary Truck Route*, on page 30 of the Project HRA. There is no requirement that the EIR body text include all maps or other information employed in supporting technical studies. Revision of the EIR is not required; results and conclusions of the EIR are not affected.

Comment SEJA-13

SoCal Environmental Justice Alliance believes the DEIR for the proposed project fails to comply with CEQA and must be substantially supplemented, amended, and recirculated before the reviewing bodies make a recommendation or decision on the proposed project. The Alliance encourages the city to require the DEIR to address the Environmental Justice Element as outlined in the California General Plan Guidelines and give the Element the same weight as the mandatory elements of the General Plan.

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Date Adopted: February

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For these reasons, SCEJA respectfully requests the need for this Project's DEIR to be substantially supplemented, amended, and recirculated and the City's denial to certify this DEIR. SoCal Environmental Justice Alliance requests to be notified via email at socaleja@gmail.com regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project.

Response SEJA-13

The commentor provides an opinion regarding the Draft EIRs compliance with CEQA and recommends the City supplement, amend, and recirculate the document. The Draft EIR was prepared in accordance with Article 9 of the *CEQA Guidelines* (§15120 – 15132) and the documents conclusions are based on substantial evidence in the public record. The Lead Agency disagrees with the commentor and considers the EIR as modified herein to appropriately and adequately respond to all germane CEQA requirements.

While the City appreciates the commentor's participation in the CEQA process, the responses presented above and the detailed information presented in the Draft EIR substantiate that Project impacts are adequately and accurately presented, and that mitigation incorporated in the EIR acts to reduce potentially significant impacts to the extent feasible. Results and conclusions of the EIR are not affected.

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4.0 MITIGATION MONITORING PLAN

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4.0 MITIGATION MONITORING PLAN

4.1 INTRODUCTION

To ensure that the mitigation measures contained in this EIR are properly implemented, a monitoring plan has been developed pursuant to State law. This Mitigation Monitoring Plan (MMP) identifies measures incorporated in the Project which reduce its potential environmental effects; the entities responsible for implementation and monitoring of mitigation measures; and the appropriate timing for implementation of mitigation measures. As described at *CEQA Guidelines* Section 15097, this MMP employs both reporting on, and monitoring of, Project mitigation measures.

The objectives of the MMP are to:

- Assign responsibility for, and ensure proper implementation of mitigation measures;
- Assign responsibility for, and provide for monitoring and reporting of compliance with mitigation measures;
- Provide the mechanism to identify areas of noncompliance and need for enforcement action before irreversible environmental damage occurs.

Mitigation monitoring and reporting procedures incorporated in the Project are presented in the following Section 4.2. Specific mitigation measures incorporated in the Project, mitigation timing, and implementation and reporting/monitoring responsibilities are presented within this Section at Table 4.2-1.

4.2 MITIGATION MONITORING AND REPORTING

Mitigation Monitoring and Responsibilities

As the Lead Agency, the City of Moreno Valley is responsible for ensuring full compliance with the mitigation measures adopted for the proposed Project. The City will monitor and report on all mitigation activities. Mitigation measures will be implemented at different stages of development throughout the Project area. In this regard, the responsibilities for implementation have been assigned to the Applicant, Contractor, or a combination thereof.

If during the course of Project implementation, any of the mitigation measures identified herein cannot be successfully implemented, the City shall be immediately informed, and the City will then inform any affected responsible agencies. The City, in conjunction with any affected responsible agencies, will then determine if modification to the Project is required and/or whether alternative mitigation is appropriate.

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Table 4.2-1
Indian Street Commerce Center Project
Mitigation Monitoring Plan

General Note: *To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit. Implementation Entities shall comply with listed mitigation requirements.*

Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
Traffic and Circulation				
4.1.1 Prior to the issuance of building permits, the Project Applicant shall pay requisite fees toward the construction of Year 2020 improvements as indicated at following Table 4.1-9 and summarized at Table 4.1-12 and illustrated at Figure 4.1-9 at the conclusion of this Section.	Prior to the issuance of building permits.	Applicant.	City of Moreno Valley.	City shall verify payment of fees at issuance of building permits.
Air Quality				
4.2.1 The following requirements shall be incorporated into Project plans and specifications in order to ensure implementation of SCAQMD Rule 403 and limit fugitive dust emissions: • *All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour;* • *The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day; and* • *The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are limited to 15 miles per hour or less.*	Prior to building plan check.	Applicant.	City of Moreno Valley.	At building plan check.
4.2.2 Grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling. This	Prior to the issuance of grading plans.	Applicant.	City of Moreno Valley.	At issuance of grading plans.

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
requirement is based on the California Air Resources Board regulation in Title 13, Chapter 10, Section 2485, Division 3 of the California Code of Regulations, which imposes a requirement that heavy duty trucks not idle for greater than five (5) minutes at any location.				
4.2.3 All off-road diesel-powered construction equipment ≥ 150 hp shall meet California Air Resources Board (CARB) Tier 4 emission standards.	During grading activity.	Construction contractor.	City of Moreno Valley.	Ongoing throughout grading activity.
4.2.4 Only "Zero-Volatile Organic Compounds" paints (no more than 50 grams/liter of VOC) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used.	Prior to issuance of building permits.	Applicant.	City of Moreno Valley.	At issuance of building permits.
4.2.5 The following requirements shall be incorporated into Project plans and specifications: • *Any gasoline-powered cargo-handling equipment shall be equipped with catalytic converters.* • *Install signs stating that the idling of trucks shall not exceed three minutes.* • *Provide preferential parking locations for EVs, CNG vehicles, and carpool/vanpool vehicles.*	Prior to issuance of building permits.	Applicant.	City of Moreno Valley.	At issuance of building permits.

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
Hazards/Hazardous Materials				
4.5.1 All plans, construction documents, and contracts shall contain the following or similar language: Contractors and developers are advised that underground Transite pipelines may be encountered within the Project site. If encountered, these features shall be documented and evaluated by a licensed environmental hazards remediation consultant/contractor. A final report of Transite pipe hazards encountered (if any) and associated remedial actions (if any) shall be submitted to the City. Abatement/disposal of asbestos resulting from removal of Transite pipelines shall be accomplished as detailed at EIR Section 4.5.4, Hazardous Waste Handling.	Throughout construction.	Construction contractor.	City of Moreno Valley.	Ongoing throughout construction activity.
Hydrology and Water Quality				
4.6.1 Prior to grading plan approval and the issuance of a grading permit by the City of Moreno Valley, the Project Applicant shall provide evidence to the City that a notice of intent (NOI) has been filed with the Regional Water Quality Control Board for coverage under the State NPDES General Construction Permit for discharge of stormwater associated with construction activities. The SWPPP shall identify Best Management Practices (BMPs) intended to prevent the release of sediment and pollutants into downstream waterways. Examples of construction BMPs to be incorporated in the Project include, but are not limited to, the following:	Prior to issuance of grading permits.	Applicant.	City of Moreno Valley.	At issuance of grading permits.

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
• *Silt Fences;* • *Check Dams;* • *Gravel Bag Berms;* • *Street Sweeping and Vacuuming;* • *Sand Bag Barriers;* • *Storm Drain Inlet Protection;* • *Wind Erosion Control;* • *Stabilized Construction Entrance/Exit; and* • *Entrance/Outlet Tire Wash.* *Post-construction BMPs to reduce sediments and other pollutants include, but are not limited to, the following:* • *Providing permanent cover to stabilize the disturbed surfaces after construction has been completed;* • *Incorporating structural BMPs (e.g., grease traps, debris, screens, continuous deflection separators, oil/water separators, drain inlet inserts) into the Project's design to provide detention and filtering of contaminants in urban runoff prior to discharge to stormwater facilities;* • *Precluding non-stormwater discharges to the stormwater system; and* • *Performing monitoring of discharges to the stormwater system.*				

Table 4.2-1
Indian Street Commerce Center Project
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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
4.6.2 Prior to the issuance of grading permits, the Project Applicant shall submit a final Water Quality Management Plan (WQMP) to the City of Moreno Valley. The WQMP shall identify Best Management Practices (BMPs) addressing all post-construction pollutant discharges. Examples of BMPs included in the Project's Preliminary WQMP include the following: *<u>Source Control/Non-Structural BMPs</u>* • *Education of property owners, operators, tenants, occupants, or employees;* • *Street Sweeping of Private Streets and Parking Lots;* • *Drainage facility inspection and maintenance;* • *Roof Runoff Controls;* • *Efficient Irrigation;* • *Protection of Slopes and Channels;* • *Storm Drain stenciling and signage;* • *Trash Storage Areas and Litter Control;* • *Irrigation system and landscape maintenance; and* • *Loading dock drainage controls.* *<u>Site Design/Structural BMPs</u>* • *Maximize permeable areas;* • *Minimize street, sidewalk, and parking lot aisle widths;* • *Maintain natural drainage patterns;* • *Incorporate drought-tolerant landscaping;* • *On-site ponding areas or retention facilities to increase*	Prior to issuance of grading permits.	Applicant.	City of Moreno Valley.	At issuance of grading permits.

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
opportunities for infiltration; • *Convey roof runoff to landscaping/permeable areas prior to discharge to storm drains;* • *Drain sidewalks and walkways to adjacent landscaped areas; and* • *Integration of landscaping and drainage designs.*				
Biological Resources				
4.7.1 To avoid impacts to nesting birds and to comply with the federal Migratory Bird Treaty Act of 1918 (MBTA): • *If possible, all vegetation removal activities shall be scheduled from August 1 to February 15, which is outside the nesting season. This would ensure that no active nests would be disturbed and that removal could proceed rapidly.* • *If vegetation is to be cleared during the nesting season (February 15 – July 31), all suitable habitat shall be thoroughly surveyed for the presence of nesting birds by a qualified biologist 72 hours prior to clearing. If any active nests are detected, the area shall be flagged and mapped on the construction plans along with a minimum 50-foot buffer and up to 300 feet for raptors, with the final buffer distance to be determined by the qualified*	Throughout construction.	Applicant.	City of Moreno Valley.	Ongoing throughout construction.

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
biologist. The buffer area shall be avoided until the nesting cycle is complete or it is determined that the nest has failed. In addition, the biologist will be present on the site to monitor the vegetation removal to ensure that any nests, which were not detected during the initial survey, are not disturbed.				
4.7.2 Within 30 days prior to grading, a qualified biologist shall conduct a Project site survey and make a final determination regarding the presence or absence of the burrowing owl. The determination shall be documented and shall be submitted, reviewed, and accepted by the City of Moreno Valley Planning Division prior to the issuance of a grading permit. Survey documentation shall incorporate following provisions: • *In the event that the pre-construction survey identifies no burrowing owls on the property, a grading permit may be issued without restriction.* • *In the event that the pre-construction survey identifies the presence of burrowing owl(s,) the Applicant shall implement incumbent CDFW burrowing owl mitigation protocols.*	Within 30 days prior to disturbance at the Project site.	Applicant.	City of Moreno Valley.	Within 30 days prior to disturbance at the Project site.

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
Cultural Resources				
4.8.1 Any excavation exceeding five feet below the current grade shall be monitored by a qualified paleontological monitor. If older alluvial deposits are encountered in shallower contexts, monitoring should be initiated once these deposits area encountered. The paleontological monitoring program should follow the local protocols of the Western Center (Hemet) and a paleontological monitoring plan should be developed prior to the ground altering activities. The extent and duration of the monitoring can be determined once the grading plan is understood and approved.	Throughout grading and excavation activities.	Applicant.	City of Moreno Valley.	At issuance of a building permit.
~~*4.8.2 If previously unidentified prehistoric/Native American resources are identified, a qualified archaeologist must be notified and, in consultation with the local Native American representative(s), be recovered and analyzed in accordance with CEQA guidelines, and curated at the University of California, Riverside, Archaeological Research Unit; the Western Center; or with the appropriate Native American repository (e.g., Pechanga facility in Temecula). In addition, an archaeological monitoring program should be initiated and continued until the archaeological consultant concludes the program is no longer necessary.*~~				

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR

Table 4.2-1
Indian Street Commerce Center Project
Mitigation Monitoring Plan

General Note: *To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit. Implementation Entities shall comply with listed mitigation requirements.*

Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
4.8.2 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a professional archaeological monitor has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities and that the monitor has the authority to temporarily halt and redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project archaeologist, with input from the Pechanga Tribe, shall prepare a Cultural Resources Monitoring Plan (CRMP) to document protocols for inadvertent finds, to determine potential protection measures from further damage and destruction for any identified archaeological resource(s)/tribal cultural resources (TCRs), outline the process for monitoring and for completion of the final Phase IV Monitoring Report. If any archaeological and/or TCRs are identified during monitoring, these will also be documented and addressed per standard archaeological protocols in the Phase IV report, with the exception of human remains which will be addressed per Mitigation Measure 4.8.6. The Project Archaeologist shall attend the pre-grading meeting with the City and contractors to explain and coordinate the requirements of the monitoring program.	Prior to issuance of grading permits.	Applicant.	City of Moreno Valley.	At issuance of grading permits.

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR

Table 4.2-1
Indian Street Commerce Center Project
Mitigation Monitoring Plan

General Note: *To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit. Implementation Entities shall comply with listed mitigation requirements.*

Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
4.8.3 At least 30 days prior to the issuance of a grading permit, the Applicant shall contact the Pechanga Band of Luiseño Indians to develop a Cultural Resources Treatment Agreement and shall provide evidence to the City of Moreno Valley that the professionally qualified Native American monitor(s) has been secured, and that the Tribe shall be allowed to monitor all mass grading and trenching activities. The Tribal representative(s) shall attend the pre-grading meeting with the City and contractors to explain and coordinate the requirements of the monitoring program.	At least 30 days prior to issuance of grading permits.	Applicant.	City of Moreno Valley.	At issuance of grading permits.
4.8.4 If, during mass grading and trenching activities, the Archaeological or Pechanga Monitors suspect that an archaeological resource and/or TCR may have been unearthed, the monitor identifying the potential resources, in consultation with the other monitor as appropriate, shall immediately halt and redirect grading operations in a 50-foot radius around the find to allow identification and evaluation of the suspected resource. The Native American monitor(s) or appropriate representative(s) and the archaeological monitor shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. The archaeological monitor and Pechanga monitor(s) or appropriate representative(s), the Project Applicant, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). All sacred	During mass grading and trenching activities.	Archaeological and/or Pechanga Monitor(s).	Archaeological and Pechanga monitor(s), Applicant, and City of Moreno Valley.	Throughout mass grading and trenching activities.

Table 4.2-1
Indian Street Commerce Center Project
Mitigation Monitoring Plan

General Note: *To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit. Implementation Entities shall comply with listed mitigation requirements.*

Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
sites, should they be encountered within the Project area, shall be avoided and preserved as the preferred mitigation, if feasible.				
4.8.5 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan: ***"If any suspected archaeological resources are discovered during ground-disturbing activities and the archaeological monitor or Pechanga representatives are not present, the construction supervisor is obligated to halt work in a 50-foot radius around the find and call the Project archaeologist and the Pechanga representatives to the site to assess the significance of the find."***	Prior to issuance of grading permits.	Applicant.	City of Moreno Valley.	At issuance of grading permits.
4.8.6 If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the Coroner. If the Riverside County Coroner determines the remains to be Native American, the California Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then	Throughout construction.	Contractor, Applicant.	City of Moreno Valley.	Throughout construction.

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR

Table 4.2-1
Indian Street Commerce Center Project
Mitigation Monitoring Plan

General Note: *To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit. Implementation Entities shall comply with listed mitigation requirements.*

Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
immediately notify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98.				
4.8.7 Prior to building permit issuance, the Project archaeologist shall prepare a final Phase IV Monitoring Report as outlined in the CRMP, which shall be submitted to the City Planning Division, Pechanga Band of Luiseño Indians, and the Eastern Information Center at the University of California, Riverside. The report shall document Project impacts to archaeological and tribal cultural resources, if any. All cultural material, excluding sacred, ceremonial, grave goods and human remains, collected during the grading monitoring program and from any previous archaeological studies or excavations on the Project site shall be curated, as determined by the treatment plan, according to the current professional repository standards and may include the Pechanga Bands curatorial facility or the Western Science Center in Hemet at the landowners discretion.	Prior to issuance of building permits.	Applicant.	City of Moreno Valley.	At issuance of building permits.

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR

Attachment A:
AB 52 Consultation Documentation

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

AGUA CALIENTE BAND OF CAHUILLA INDIANS
TRIBAL HISTORIC PRESERVATION

03-024-2016-004

February 12, 2016

[VIA EMAIL TO:juliad@moval.org]

Ms. Julia Descoteaux
14177 Frederick Street, P.O. Box 88005
City of Moreno Valley, CA 92252-0805

Re: PA16-0002 & P16-003

Dear Ms. Julia Descoteaux,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the PA16-0002 & P16-003 project. After reviewing the project information provided and conducting a records search of ACBCI cultural registry it was determined that more information is needed. In order for the ACBCI to provide informed comments and recommendations we request the following:

*A copy of the records search with associated survey reports and site records from the information center.

*A cultural resources inventory of the project area by a qualified archaeologist prior to any development activities in this area.

*Copies of any cultural resource documentation (report and site records) generated in connection with this project.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760)699-6829. You may also email me at acbci-thpo@aguacaliente.net.

Cordially,

Katie Croft

Katie Croft
Archaeologist
Tribal Historic Preservation Office
AGUA CALIENTE BAND
OF CAHUILLA INDIANS

5401 DINAH SHORE DRIVE, PALM SPRINGS, CA 92264
T 760/699/6800 F 760/699/6924 WWW.AGUACALIENTE-NSN.GOV

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

AGUA CALIENTE BAND OF CAHUILLA INDIANS
TRIBAL HISTORIC PRESERVATION

03-024-2016-004

September 15, 2016

[VIA EMAIL TO:juliad@moval.org]

Ms. Julia Descoteaux
14177 Frederick Street, P.O. Box 88005
City of Moreno Valley, CA 92252-0805

Re: Indian Street Commerce Center

Dear Ms. Julia Descoteaux,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the PA16-0002 & P16-003 project. After reviewing the project information provided and conducting a records search of ACBCI cultural registry it was determined that more information is needed. In order for the ACBCI THPO department to provide informed comments and recommendations we request the following:

*At this time ACBCI defers to the Pechanga Band of Luiseno Indians. This letter shall conclude our consultation efforts.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760)699-6829. You may also email me at acbci-thpo@aguacaliente.net.

Cordially,

Katie Croft

Katie Croft
Archaeologist
Tribal Historic Preservation Office
AGUA CALIENTE BAND
OF CAHUILLA INDIANS

5401 DINAH SHORE DRIVE, PALM SPRINGS, CA 92264
T 760/699/6800 F 760/699/6924 WWW.AGUACALIENTE-NSN.GOV

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

PECHANGA CULTURAL RESOURCES
Temecula Band of Luiseño Mission Indians

Post Office. Box 2183 • Temecula, CA 92593
Telephone (951) 308-9295 • Fax (951) 506-9491

Chairperson:
Neal Ibanez

Vice Chairperson:
Bridgett Barcello

Committee Members:
Mary Bear Magee
Evie Gerber
Darlene Miranda
Richard B. Scearce, III
Michael Vasquez

Director:
Gary DuBois

Coordinator:
Paul Macarro

Planning Specialist:
Tuba Ebru Ozdil

Cultural Analyst:
Anna Hoover

February 22, 2016

VIA E-MAIL and USPS

Julia Descoteaux
Case Planner
City of Moreno Valley
Community Development Department
Planning Division
P.O. Box 88005
Moreno Valley, CA 92552-0805

Re: Pechanga Tribe Request for Consultation Pursuant to AB 52 for the PA16-0002, and P16-003 (First Nandina Logistics).

Dear Ms. Descoteaux;

This letter is written on behalf of the Pechanga Band of Luiseño Indians (hereinafter, "the Tribe" and/or "Payómkawichum"), a federally recognized Indian tribe and sovereign government in response to the AB 52 notice provided by the City of Moreno Valley dated January 28, 2016 and received in our office February 3, 2016.

This letter serves as the Tribe's formal request to begin consultation under AB 52 for this Project. Per AB 52, we intend to assist the City of Moreno Valley in determining the type of environmental document that should be prepared for this Project (i.e. EIR, MND, ND); with identifying potential tribal cultural resources (TCRs); determining whether potential substantial adverse effects will occur to them; and to develop appropriate preservation, avoidance and/or mitigation measures, as appropriate. Preferred TCR mitigation is always avoidance and the Tribe requests that all efforts to preserve sensitive TCRs be made as early in the development process as possible.

Please add the Tribe to your distribution list(s) for public notices and circulation of all documents, including environmental review documents, archaeological reports, development plans, conceptual grading plans (if available), and all other applicable documents pertaining to this Project. The Tribe further requests to be directly notified of all public hearings and scheduled approvals concerning this Project, and that these comments be incorporated into the record of approval for this Project.

The Pechanga Tribe asserts that the Project area is part of Payómkawichum (Luiseño), and therefore the Tribe's, aboriginal territory as evidenced by the existence of Payómkawichum cultural resources, named places, *tóota yixélval* (rock art, pictographs, petroglyphs), and an extensive Payómkawichum artifact record in the vicinity of the Project. This culturally sensitive area is affiliated with the Pechanga Band of Luiseño Indians because of the Tribe's cultural ties to this area as well as our extensive history with the City of Moreno Valley and other projects within the area. During our consultation we will provide more specific, confidential information on potential TCRs that may be impacted by the proposed Project.

As you know, the AB 52 consultation process is ongoing and continues until appropriate mitigation has been agreed upon for the TCRs that may be impacted by the Project. As such, under both AB 52 and CEQA, we look forward to working closely with the City of Moreno Valley on ensuring that a full, comprehensive environmental review of the Project's impacts is completed, including addressing the culturally appropriate and respectful treatment of human remains and inadvertent discoveries.

In addition to those rights granted to the Tribe under AB 52, the Tribe reserves the right to fully participate in the environmental review process, as well as to provide further comment on the Project's impacts to cultural resources and potential mitigation for such impacts.

The Pechanga Tribe looks forward to working together with the City of Moreno Valley in protecting the invaluable Pechanga cultural resources found in the Project area. The formal contact person for this Project will be Anna Hoover. Please contact her at 951-770-8104 or at ahoover@pechanga-nsn.gov within 30 days of receiving these comments so that we can begin the consultation process. Thank you.

Sincerely,

P.P. Anna Hoover

Anna Hoover
Cultural Analyst

Cc Pechanga Office of the General Counsel

RECEIVED
MAR 0 2 2016
CITY OF MORENO VALLEY
Planning Division

SOBOBA BAND OF LUISEÑO INDIANS
EST. JUNE 19, 1883

February 24, 2016

Attn: Julia Descoteaux, Associate Planner
City of Moreno Valley
Community Development Department, Planning Division
14177 Frederick Street
Moreno Valley, CA 92552- 0805

RE: AB 52 Consultation: PA16-0002 & P16-003; west side of Indian Street, south of Grove View Road (APN's 316-210-019, 020, 057, 077)

The Soboba Band of Luiseño Indians has received your notification pursuant under Assembly Bill 52.

The Soboba Band of Luiseño Indians appreciates your observance of Tribal Cultural Resources and their preservation in your project. The information provided to us on said project(s) has been assessed through our Cultural Resource Department. At this time the Soboba Band does not have any specific concerns regarding known cultural resources in the specified areas that the project encompasses, but does request that the appropriate consultation continue to take place between concerned tribes, project proponents, and local agencies. The tribe requests notification of any inadvertent discoveries that may be discovered during the course of the project. Please feel free to contact me with any additional questions or concerns.

Sincerely,

Joseph Ontiveros
Cultural Resource Director
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581
Phone (951) 654-5544 ext. 4137
Cell (951) 663-5279
jontiveros@soboba-nsn.gov

Confidentiality: The entirety of the contents of this letter shall remain confidential between Soboba and the City of Moreno Valley. No part of the contents of this letter may be shared, copied, or utilized in any way with any other individual, entity, municipality, or tribe, whatsoever, without the expressed written permission of the Soboba Band of Luiseño Indians.

MORONGO CULTURAL HERITAGE PROGRAM
12700 PUMARRA RD BANNING, CA 92220
OFFICE 951-755-5025 FAX 951-572-6004

Date: February 26, 2016

Re: Case No. PA16-0002 & P16-003. A Plot Plan to develop 19.64 acres into a 436,350 square foot warehouse/distribution building located in the Moreno Valley Industrial Area Specific Plan. The project includes 53 dock doors within the truck loading area, employee parking areas and basins.

Dear,
Julia Descoteaux
Moreno Valley
Planning Dept.

Thank you for contacting the Morongo Band of Mission Indians regarding the above referenced project(s). The tribe greatly appreciates the opportunity to comment on the project. After reviewing our records and consulting with our tribal elders and cultural experts, we would like to respectfully offer the following comments and/or recommendations:

___ The project is outside of the Tribe's current reservation boundaries and is not within an area considered to be a traditional use area or one in which the Tribe has cultural ties (i.e. Cahuilla or Serrano Territory). We recommend contacting the appropriate tribes who have cultural affiliation to the project area. We have no further comments at this time.

___ The project is outside of the Tribe's current reservation boundaries but within in an area considered to be a traditional use area or one in which the Tribe has cultural ties (i.e. Cahuilla or Serrano Territory). At this time, we are not aware of any cultural resources on the property; however, that is not to say there is nothing present. At this time, we ask that you impose specific conditions regarding all cultural and/or archaeological resources and buried cultural materials on any development plans or entitlement applications (see Standard Development Conditions attachment).

_X_ The project is outside of the Tribe's current reservation boundaries but within in an area considered to be a traditional use area or one in which the Tribe has cultural ties (i.e. Cahuilla or Serrano Territory). At this time we ask that you impose specific conditions regarding all cultural and/or archaeological resources and buried cultural materials on any development plans or entitlement applications (see Standard Development Conditions attachment). Furthermore, we would like to formally request the following:

- _X_ A thorough records search be conducted by contacting one of the CHRIS (California Historical Resources Information System) Archaeological Information Centers and have a copy of the search results be provided to the tribe.

- _X_ A comprehensive archaeological survey be conducted of the proposed project property and any APE's (Areas of Potential Effect) within the property. We would also like to request that a tribal monitor be present during the initial pedestrian survey and that a copy of the results be provided to the tribe as soon as it can be made available.

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

___ Morongo would like to request that our tribal monitors be present during any test pit or trenching activities and any subsequent ground disturbing activities during the construction phase of the project.

___ The project is located with the current boundaries of the Morongo Band of Mission Indians Reservation. Please contact the Morongo Band of Mission Indians planning department for further details.

Once again, the Morongo Band of Mission Indians appreciates the opportunity to comment on this project. Please be aware that receipt of this letter does not constitute "meaningful" tribal consultation nor does it conclude the consultation process. This letter is merely intended to initiate consultation between the tribe and lead agency, which may be followed up with additional emails, phone calls or face-to-face consultation if deemed necessary. If you should have any further questions with regard to this matter, please do not hesitate to contact me at your convenience.

Very truly yours,

Raymond Huaute
Cultural Resource Specialist
Morongo Band of Mission Indians
Email: rhuaute@morongo-nsn.gov
Phone: (951) 755-5025

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE



Standard Development Conditions

The Morongo Band of Mission Indians asks that you impose specific conditions regarding cultural and/or archaeological resources and buried cultural materials on any development plans or entitlement applications as follows:

1. If human remains are encountered during grading and other construction excavation, work in the immediate vicinity shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5.

2. In the event that Native American cultural resources are discovered during project development/construction, all work in the immediate vicinity of the find shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the overall project may continue during this assessment period.

    a. If significant Native American cultural resources are discovered, for which a Treatment Plan must be prepared, the developer or his archaeologist shall contact the Morongo Band of Mission Indians.

    b. If requested by the Tribe[1], the developer or the project archaeologist shall, in good faith, consult on the discovery and its disposition (e.g. avoidance, preservation, return of artifacts to tribe, etc.).

[1] The Morongo Band of Mission Indians realizes that there may be additional tribes claiming cultural affiliation to the area; however, Morongo can only speak for itself. The Tribe has no objection if the archaeologist wishes to consult with other tribes and if the city wishes to revise the condition to recognize other tribes.

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

From: Julia Descoteaux
To: rhuaute@morongo-nsn.gov
Subject: RE: PA16-0002, P16-003
Date: Thursday, October 13, 2016 10:50:08 AM

Good Morning Mr. Huaute,

As a result of your letter of February 26th , 2016, I am following up on the AB52 process for this project. A copy of the Cultural Study was sent to you on May 10, 2016 and the Draft EIR on August 26, 2016 for your review. The project is scheduled for the December 8th Planning Commission Hearing. If you would like a consultation meeting, please contact me by October 20th, 2016 to schedule.

Best Regards,
Julia

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

From: Ray Huaute
To: Julia Descoteaux
Subject: RE: Case No. PA16-0002 & P16-003, Indian Street Commerce Center
Date: Thursday, October 27, 2016 9:51:38 AM
Attachments: image001.png

Hi Juila,
Regarding the project PA16-0002 & P16-003, I see no need for Native American Tribal monitoring. We do however request that we be contacted in the event cultural resources or human remains are inadvertently discovered during ground disturbing activities. Thank you for your cooperation in this matter.

Sincerely,

Raymond Huaute
Cultural Resource Specialist
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA 92220
Phone: (951) 755-5025
Fax: (951) 572-6004
Email: rhuaute@morongo-nsn.gov

From: Julia Descoteaux [mailto:juliad@moval.org]
Sent: Tuesday, May 10, 2016 3:31 PM
To: Ray Huaute
Subject: Case No. PA16-0002 & P16-003, Indian Street Commerce Center

Good Afternoon Mr. Huaute,

Per your letter dated February 26, 2016, attached please find the Cultural Study for the above listed project. If you have any questions, please feel free to contact me.

Best Regards,
Julia

Julia Descoteaux
Associate Planner
Community Development
City of Moreno Valley
p: 951.413.3209 | e: juliad@moval.org w: www.moval.org
14177 Frederick St., Moreno Valley, CA 92553

Attachment: Exhibit A - To Resolution Final EIR Nov 2016 [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

From: Julia Descoteaux
To: Daniel McCarthy
Subject: RE: NOP for Indian Street Commerce Center Porject EIR
Date: Tuesday, May 10, 2016 6:12:34 PM

Hi Daniel,

Does this email also complete the AB52 process for this project?

Best Regards,
Julia

From: Daniel McCarthy [mailto:DMcCarthy@sanmanuel-nsn.gov]
Sent: Tuesday, March 15, 2016 10:32 AM
To: Julia Descoteaux
Subject: NOP for Indian Street Commerce Center Porject EIR

Julia,

We received the NOP for the proposed Indian Street Commerce Center Project EIR. Thank you for the opportunity to review and respond. The project is located outside of the Tribe's ancestral territory, therefore we refer you to other tribes with ancestral territories that do include the project location.

Thank you,
Leslie Mouriquand MA, RPA

Daniel McCarthy, MS, RPA
Director
Cultural Resources Management Department
San Manuel Band of Mission Indians
26569 Community Center Drive
Highland, CA 92346
Office: 909 864-8933 x 3248
Cell: 909 838-4175
dmccarthy@sanmanuel-nsn.gov

To ensure a rapid reply concerning all AB 52 Consultation correspondence please use:
SMConsultation@sanmanuel-nsn.gov

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corrected. Thank You

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4.0 MITIGATION MONITORING PLAN

E.2.f

Attachment: Exhibit B - To Resolution Mitigation Monitoring Plan [Revision 3] (2416 : A PUBLIC HEARING

Packet Pg. 572

4.0 MITIGATION MONITORING PLAN

4.1 INTRODUCTION

To ensure that the mitigation measures contained in this EIR are properly implemented, a monitoring plan has been developed pursuant to State law. This Mitigation Monitoring Plan (MMP) identifies measures incorporated in the Project which reduce its potential environmental effects; the entities responsible for implementation and monitoring of mitigation measures; and the appropriate timing for implementation of mitigation measures. As described at *CEQA Guidelines* Section 15097, this MMP employs both reporting on, and monitoring of, Project mitigation measures.

The objectives of the MMP are to:

- Assign responsibility for, and ensure proper implementation of mitigation measures;
- Assign responsibility for, and provide for monitoring and reporting of compliance with mitigation measures;
- Provide the mechanism to identify areas of noncompliance and need for enforcement action before irreversible environmental damage occurs.

Mitigation monitoring and reporting procedures incorporated in the Project are presented in the following Section 4.2. Specific mitigation measures incorporated in the Project, mitigation timing, and implementation and reporting/monitoring responsibilities are presented within this Section at Table 4.2-1.

E.2.f

Attachment: Exhibit B - To Resolution Mitigation Monitoring Plan [Revision 3] (2416 : A PUBLIC HEARING

Packet Pg. 573

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4.2 MITIGATION MONITORING AND REPORTING

Mitigation Monitoring and Responsibilities

As the Lead Agency, the City of Moreno Valley is responsible for ensuring full compliance with the mitigation measures adopted for the proposed Project. The City will monitor and report on all mitigation activities. Mitigation measures will be implemented at different stages of development throughout the Project area. In this regard, the responsibilities for implementation have been assigned to the Applicant, Contractor, or a combination thereof.

If during the course of Project implementation, any of the mitigation measures identified herein cannot be successfully implemented, the City shall be immediately informed, and the City will then inform any affected responsible agencies. The City, in conjunction with any affected responsible agencies, will then determine if modification to the Project is required and/or whether alternative mitigation is appropriate.

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Attachment: Exhibit B - To Resolution Mitigation Monitoring Plan [Revision 3] (2416 : A PUBLIC HEARING

Table 4.2-1
Indian Street Commerce Center Project
Mitigation Monitoring Plan

General Note: *To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit. Implementation Entities shall comply with listed mitigation requirements.*

Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
Traffic and Circulation				
4.1.1 Prior to the issuance of building permits, the Project Applicant shall pay requisite fees toward the construction of Year 2020 improvements as indicated at following Table 4.1-9 and summarized at Table 4.1-12 and illustrated at Figure 4.1-9 at the conclusion of this Section.	Prior to the issuance of building permits.	Applicant.	City of Moreno Valley.	City shall verify payment of fees at issuance of building permits.
Air Quality				
4.2.1 The following requirements shall be incorporated into Project plans and specifications in order to ensure implementation of SCAQMD Rule 403 and limit fugitive dust emissions: • *All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour;* • *The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day; and* • *The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are limited to 15 miles per hour or less.*	Prior to building plan check.	Applicant.	City of Moreno Valley.	At building plan check.
4.2.2 Grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling. This	Prior to the issuance of grading plans.	Applicant.	City of Moreno Valley.	At issuance of grading plans.

Resolution 201
Date Adopted: February 7, 2017

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Attachment: Exhibit B - To Resolution Mitigation Monitoring Plan [Revision 3] (2416 : A PUBLIC HEARING

Table 4.2-1
Indian Street Commerce Center Project
Mitigation Monitoring Plan

General Note: *To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit. Implementation Entities shall comply with listed mitigation requirements.*

Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
requirement is based on the California Air Resources Board regulation in Title 13, Chapter 10, Section 2485, Division 3 of the California Code of Regulations, which imposes a requirement that heavy duty trucks not idle for greater than five (5) minutes at any location.				
4.2.3 *All off-road diesel-powered construction equipment ≥ 150 hp shall meet California Air Resources Board (CARB) Tier 4 emission standards.*	During grading activity.	Construction contractor.	City of Moreno Valley.	Ongoing throughout grading activity.
4.2.4 *Only "Zero-Volatile Organic Compounds" paints (no more than 50 grams/liter of VOC) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used.*	Prior to issuance of building permits.	Applicant.	City of Moreno Valley.	At issuance of building permits.
4.2.5 *The following requirements shall be incorporated into Project plans and specifications:* • *Any gasoline-powered cargo-handling equipment shall be equipped with catalytic converters.* • *Install signs stating that the idling of trucks shall not exceed three minutes.* • *Provide preferential parking locations for EVs, CNG vehicles, and carpool/vanpool vehicles.*	Prior to issuance of building permits.	Applicant.	City of Moreno Valley.	At issuance of building permits.

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
Hazards/Hazardous Materials				
4.5.1 All plans, construction documents, and contracts shall contain the following or similar language: Contractors and developers are advised that underground Transite pipelines may be encountered within the Project site. If encountered, these features shall be documented and evaluated by a licensed environmental hazards remediation consultant/contractor. A final report of Transite pipe hazards encountered (if any) and associated remedial actions (if any) shall be submitted to the City. Abatement/disposal of asbestos resulting from removal of Transite pipelines shall be accomplished as detailed at EIR Section 4.5.4, Hazardous Waste Handling.	Throughout construction.	Construction contractor.	City of Moreno Valley.	Ongoing throughout construction activity.
Hydrology and Water Quality				
4.6.1 Prior to grading plan approval and the issuance of a grading permit by the City of Moreno Valley, the Project Applicant shall provide evidence to the City that a notice of intent (NOI) has been filed with the Regional Water Quality Control Board for coverage under the State NPDES General Construction Permit for discharge of stormwater associated with construction activities. The SWPPP shall identify Best Management Practices (BMPs) intended to prevent the release of sediment and pollutants into downstream waterways. Examples of construction BMPs to be incorporated in the Project include, but are not limited to, the following:	Prior to issuance of grading permits.	Applicant.	City of Moreno Valley.	At issuance of grading permits.

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
• *Silt Fences;* • *Check Dams;* • *Gravel Bag Berms;* • *Street Sweeping and Vacuuming;* • *Sand Bag Barriers;* • *Storm Drain Inlet Protection;* • *Wind Erosion Control;* • *Stabilized Construction Entrance/Exit; and* • *Entrance/Outlet Tire Wash.* *Post-construction BMPs to reduce sediments and other pollutants include, but are not limited to, the following:* • *Providing permanent cover to stabilize the disturbed surfaces after construction has been completed;* • *Incorporating structural BMPs (e.g., grease traps, debris, screens, continuous deflection separators, oil/water separators, drain inlet inserts) into the Project's design to provide detention and filtering of contaminants in urban runoff prior to discharge to stormwater facilities;* • *Precluding non-stormwater discharges to the stormwater system; and* • *Performing monitoring of discharges to the stormwater system.*				

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
4.6.2 *Prior to the issuance of grading permits, the Project Applicant shall submit a final Water Quality Management Plan (WQMP) to the City of Moreno Valley. The WQMP shall identify Best Management Practices (BMPs) addressing all post-construction pollutant discharges. Examples of BMPs included in the Project's Preliminary WQMP include the following:* *Source Control/Non-Structural BMPs* • *Education of property owners, operators, tenants, occupants, or employees;* • *Street Sweeping of Private Streets and Parking Lots;* • *Drainage facility inspection and maintenance;* • *Roof Runoff Controls;* • *Efficient Irrigation;* • *Protection of Slopes and Channels;* • *Storm Drain stenciling and signage;* • *Trash Storage Areas and Litter Control;* • *Irrigation system and landscape maintenance; and* • *Loading dock drainage controls.* *Site Design/Structural BMPs* • *Maximize permeable areas;* • *Minimize street, sidewalk, and parking lot aisle widths;* • *Maintain natural drainage patterns;* • *Incorporate drought-tolerant landscaping;* • *On-site ponding areas or retention facilities to increase*	Prior to issuance of grading permits.	Applicant.	City of Moreno Valley.	At issuance of grading permits.

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
opportunities for infiltration; • *Convey roof runoff to landscaping/permeable areas prior to discharge to storm drains;* • *Drain sidewalks and walkways to adjacent landscaped areas; and* • *Integration of landscaping and drainage designs.*				
Biological Resources				
4.7.1 To avoid impacts to nesting birds and to comply with the federal Migratory Bird Treaty Act of 1918 (MBTA): • *If possible, all vegetation removal activities shall be scheduled from August 1 to February 15, which is outside the nesting season. This would ensure that no active nests would be disturbed and that removal could proceed rapidly.* • *If vegetation is to be cleared during the nesting season (February 15 – July 31), all suitable habitat shall be thoroughly surveyed for the presence of nesting birds by a qualified biologist 72 hours prior to clearing. If any active nests are detected, the area shall be flagged and mapped on the construction plans along with a minimum 50-foot buffer and up to 300 feet for raptors, with the final buffer distance to be determined by the qualified*	Throughout construction.	Applicant.	City of Moreno Valley.	Ongoing throughout construction.

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
biologist. The buffer area shall be avoided until the nesting cycle is complete or it is determined that the nest has failed. In addition, the biologist will be present on the site to monitor the vegetation removal to ensure that any nests, which were not detected during the initial survey, are not disturbed.				
4.7.2 *Within 30 days prior to grading, a qualified biologist shall conduct a Project site survey and make a final determination regarding the presence or absence of the burrowing owl. The determination shall be documented and shall be submitted, reviewed, and accepted by the City of Moreno Valley Planning Division prior to the issuance of a grading permit. Survey documentation shall incorporate following provisions:* • *In the event that the pre-construction survey identifies no burrowing owls on the property, a grading permit may be issued without restriction.* • *In the event that the pre-construction survey identifies the presence of burrowing owl(s,) the Applicant shall implement incumbent CDFW burrowing owl mitigation protocols.*	Within 30 days prior to disturbance at the Project site.	Applicant.	City of Moreno Valley.	Within 30 days prior to disturbance at the Project site.

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
Cultural Resources				
4.8.1 Any excavation exceeding five feet below the current grade shall be monitored by a qualified paleontological monitor. If older alluvial deposits are encountered in shallower contexts, monitoring should be initiated once these deposits area encountered. The paleontological monitoring program should follow the local protocols of the Western Center (Hemet) and a paleontological monitoring plan should be developed prior to the ground altering activities. The extent and duration of the monitoring can be determined once the grading plan is understood and approved.	Throughout grading and excavation activities.	Applicant.	City of Moreno Valley.	At issuance of a building permit.
~~*4.8.2 If previously unidentified prehistoric/Native American resources are identified, a qualified archaeologist must be notified and, in consultation with the local Native American representative(s), be recovered and analyzed in accordance with CEQA guidelines, and curated at the University of California, Riverside, Archaeological Research Unit; the Western Center; or with the appropriate Native American repository (e.g., Pechanga facility in Temecula). In addition, an archaeological monitoring program should be initiated and continued until the archaeological consultant concludes the program is no longer necessary.*~~				

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
4.8.2 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a professional archaeological monitor has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities and that the monitor has the authority to temporarily halt and redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project archaeologist, with input from the Pechanga Tribe, shall prepare a Cultural Resources Monitoring Plan (CRMP) to document protocols for inadvertent finds, to determine potential protection measures from further damage and destruction for any identified archaeological resource(s)/tribal cultural resources (TCRs), outline the process for monitoring and for completion of the final Phase IV Monitoring Report. If any archaeological and/or TCRs are identified during monitoring, these will also be documented and addressed per standard archaeological protocols in the Phase IV report, with the exception of human remains which will be addressed per Mitigation Measure 4.8.6. The Project Archaeologist shall attend the pre-grading meeting with the City and contractors to explain and coordinate the requirements of the monitoring program.	Prior to issuance of grading permits.	Applicant.	City of Moreno Valley.	At issuance of grading permits.

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
4.8.3 At least 30 days prior to the issuance of a grading permit, the Applicant shall contact the Pechanga Band of Luiseño Indians to develop a Cultural Resources Treatment Agreement and shall provide evidence to the City of Moreno Valley that the professionally qualified Native American monitor(s) has been secured, and that the Tribe shall be allowed to monitor all mass grading and trenching activities. The Tribal representative(s) shall attend the pre-grading meeting with the City and contractors to explain and coordinate the requirements of the monitoring program.	At least 30 days prior to issuance of grading permits.	Applicant.	City of Moreno Valley.	At issuance of grading permits.
4.8.4 If, during mass grading and trenching activities, the Archaeological or Pechanga Monitors suspect that an archaeological resource and/or TCR may have been unearthed, the monitor identifying the potential resources, in consultation with the other monitor as appropriate, shall immediately halt and redirect grading operations in a 50-foot radius around the find to allow identification and evaluation of the suspected resource. The Native American monitor(s) or appropriate representative(s) and the archaeological monitor shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. The archaeological monitor and Pechanga monitor(s) or appropriate representative(s), the Project Applicant, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). All sacred	During mass grading and trenching activities.	Archaeological and/or Pechanga Monitor(s).	Archaeological and Pechanga monitor(s), Applicant, and City of Moreno Valley.	Throughout mass grading and trenching activities.

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
sites, should they be encountered within the Project area, shall be avoided and preserved as the preferred mitigation, if feasible.				
4.8.5 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan: *"If any suspected archaeological resources are discovered during ground-disturbing activities and the archaeological monitor or Pechanga representatives are not present, the construction supervisor is obligated to halt work in a 50-foot radius around the find and call the Project archaeologist and the Pechanga representatives to the site to assess the significance of the find."*	Prior to issuance of grading permits.	Applicant.	City of Moreno Valley.	At issuance of grading permits.
4.8.6 If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the Coroner. If the Riverside County Coroner determines the remains to be Native American, the California Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then	Throughout construction.	Contractor, Applicant.	City of Moreno Valley.	Throughout construction.

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Mitigation Measures	Mitigation Timing	Implementation Entity	Monitoring/Reporting Entity	Monitoring/Reporting Frequency
immediately notify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98.				
4.8.7 Prior to building permit issuance, the Project archaeologist shall prepare a final Phase IV Monitoring Report as outlined in the CRMP, which shall be submitted to the City Planning Division, Pechanga Band of Luiseño Indians, and the Eastern Information Center at the University of California, Riverside. The report shall document Project impacts to archaeological and tribal cultural resources, if any. All cultural material, excluding sacred, ceremonial, grave goods and human remains, collected during the grading monitoring program and from any previous archaeological studies or excavations on the Project site shall be curated, as determined by the treatment plan, according to the current professional repository standards and may include the Pechanga Bands curatorial facility or the Western Science Center in Hemet at the landowners discretion.	Prior to issuance of building permits.	Applicant.	City of Moreno Valley.	At issuance of building permits.

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Resolution 201
Date Adopted: February 7, 2017

CEQA Findings and Findings of Fact and Statement of Overriding Considerations for the Indian Street Commerce Center Project

Prepared for:

City of Moreno Valley

Prepared by:

Applied Planning, Inc.

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SECTION 1: INTRODUCTION

1.1 - BACKGROUND

In compliance with the requirements of the California Environmental Quality Act (CEQA) Public Resources Code Section 21000 et seq and the CEQA Guidelines, the City of Moreno Valley has conducted an environmental review of the proposed Indian Street Commerce Center (the "Project"). A Notice of Preparation (NOP) was released for public review in March 2016. In August 2016, the Draft Environmental Report (EIR) (Draft EIR) was released, and was circulated for public review and comment from August 25 through October 10, 2016. The City of Moreno Valley (City) received 10 written comments on the Draft EIR. The City prepared detailed responses to all comments, which are incorporated into the Responses to Comments section of the Final EIR. The Responses to Comments includes the verbatim comments received on the Draft EIR, a list of persons, entities, and agencies providing comments, and the various written responses to the comments prepared by the City's technical consultants and the City. These Findings are based upon the information contained in the record of proceedings, including the Final EIR, staff reports, the Project applicant's materials, the Mitigation Monitoring Plan, the testimony presented at public hearings, and all of the materials set forth in the Record of Proceedings, including Section 1.5, below. The Final EIR consists of the the Draft EIR and appendices thereto, as well as the following sections: Section 1: Introduction; Section 2: Revisions and Errata Corrections; Section 3: Comments and Responses; and Section 4: Mitigation Monitoring Plan.

CEQA provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would *substantially lessen* the significant environmental effects of such projects[.]" (Public Resources Code Section 21002 [emphasis added].) The procedures required by CEQA "are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects." (Public Resources Code Section 21002.)

CEQA's mandates and principles are implemented, in part, through the requirement that agencies adopt findings before approving projects for which EIRs are required. For each significant environmental effect identified in an EIR for a proposed project, the approving agency must issue a written finding reaching one or more of three conclusions: (1) that "[c]hanges or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR," (2) "[s]uch changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding [and] [s]uch changes have been adopted by such other agency or can and should be adopted by such other

agency," or (3) "[s]pecific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR." (Public Res. Code Section 21081; CEQA Guidelines, 14 California Code of Regulations Section 15091.) CEQA defines "feasible" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, legal, environmental, social and technological factors." (Public Resources Code Section 21061.1; CEQA Guidelines, 14 California Code of Regulations 15364.)

Because the Draft EIR identified significant effects that may occur as a result of the Project, and in accordance with the provisions of CEQA and the CEQA Guidelines, the Planning Commission of the City of Moreno Valley hereby adopts these Findings, Findings of Fact and Statement of Overriding Considerations. The Planning Commission of the City of Moreno Valley has independently reviewed the record of proceedings and based on the evidence in the Record of Proceedings adopts these Findings, Findings of Fact and Statement of Overriding Considerations.

1.2 - PROJECT DESCRIPTION

The proposed Project includes the construction and operation of approximately 446,350 square feet of light industrial uses within an approximately 19.64 acre site. As currently proposed, 347,080 square feet of the Project building area would be allocated for distribution warehouse uses; 89,270 square feet would be assigned to manufacturing uses; and 10,000 square feet would be assigned to office uses. The Project does not include a refrigerated/cold storage component. The Project site is located in the southern portion of the City of Moreno Valley, approximately one-half mile westerly of Perris Boulevard, and is bounded by Indian Street to the east and Grove View Road (alignment) to the north.

1.3 - PROJECT OPENING YEAR

The proposed Indian Street Commerce Center Project in total would be developed in a manner responsive to market conditions and in concert with availability of necessary infrastructure and services. The anticipated Project Opening Year is 2018.

1.4 - PROJECT OBJECTIVES

The proposed Project meets the following project objectives:

- Implement the City's General Plan through development that is consistent with the General Plan Community Development Element and applicable General Plan Goals, Objectives, Policies and Programs;

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- Implement the Moreno Valley Industrial Area Plan through development that is consistent with the Area Plan land uses and development concepts, and in total supports the Area Plan Vision;
- Provide adequate roadway and wet and dry utility infrastructure to serve the Project;
- Accommodate warehouse and manufacturing uses that are compatible with adjacent land uses;
- Provide an attractive, efficient and safe environment for warehouse uses that is cognizant of natural and man-made conditions;
- Accommodate a mix of warehouse and manufacturing uses responsive to current and anticipated market demands;
- Establish new development that would increase locally available employment opportunities and would further the City's near-term and long-range fiscal goals and objectives; and
- Establish new development that would increase locally available employment opportunities thereby improving jobs/housing balance within the City.

1.5 - RECORD OF PROCEEDINGS

For purposes of CEQA and these Findings, the Record of Proceedings for the proposed Project consists of the following documents and other evidence, at a minimum:

- The Notice of Preparation (NOP) and all other public notices issued by the City in conjunction with the proposed Project;
- The Final Environmental Impact Report for the proposed Project (Final EIR), which includes the Draft EIR, the technical appendices, and the Responses to Comments;
- All written comments submitted by agencies or members of the public during the public review comment period on the Draft EIR;
- All responses to written comments submitted by agencies or members of the public during the public review comment period on the Draft EIR;
- All written and verbal public testimony presented during a noticed public hearing for the proposed Project at which such testimony was taken;

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- The Mitigation Monitoring Plan (MMP);
- The documents, reports and technical memoranda included or referenced in the technical appendices of the Draft EIR and Final EIR;
- All documents, studies, EIRs, or other materials incorporated by reference in the Draft EIR and Final EIR;
- The Ordinances and Resolutions adopted by the City in connection with the proposed Project, and all documents incorporated by reference therein;
- Matters of common knowledge to the City, including but not limited to federal, state and local laws and regulations and policy documents;
- Written correspondence submitted to the City in connection with the Project;
- All documents, City Staff Reports, City studies, and all written or oral testimony provided to the City in connection with the Project;
- Any documents expressly cited in these Findings;
- The City's General Plan and Zoning Ordinance;
- All testimony and deliberations received or held in connection with the Project;
- Any other relevant materials required to be in the record of proceedings by Public Resources Code Section 21167.6(e) (excluding privileged materials), including materials submitted to the City by the applicant.

1.6 - CUSTODIAN AND LOCATION OF RECORDS

The documents and other materials which constitute the administrative record for the City's actions related to the project are located at the City of Moreno Valley Planning Division, located at 14177 Frederick Street, Moreno Valley, CA 92553, and much of the documents that constitute the record may be accessed on the City's website at http://www.moreno-valley.ca.us/misc/indian.shtml. The City Planning Division is the custodian of the record of proceedings for the Project. Copies of these documents, which constitute the record of proceedings, are and at all relevant times have been and will be available upon request at the office of the Planning Department. Documents also may be reviewed at the Moreno Valley Library, located at 25480 Alessandro Boulevard, Moreno Valley, California. This information is provided in compliance with Public Resources Code section 21081.6(a)(2) and CEQA Guideline section 15091(e).

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1.7 - ENVIRONMENTAL REVIEW AND PUBLIC PARTICIPATION

The City prepared an Initial Study (IS) for the proposed Project in March 2016. Based on that IS, the City determined that the proposed Project may have a significant effect on the environment and that an EIR should be prepared to analyze the potential impacts associated with approval and implementation of the proposed Project.

In March 2016, in accordance with Section 15082 of the Guidelines, the City distributed a Notice of Preparation (NOP) of an Environmental Impact Report to the State Clearinghouse, local and regional responsible agencies and other interested parties. The State Clearinghouse established the public comment period for the NOP/IS as March 14, 2016 through April 12, 2016. The assigned State Clearinghouse reference for the Project is SCH No. 2016031036. A copy of the IS, NOP, and the responses received during the 30-day public review period, are contained in Appendix A to the Draft EIR.

In August 2016, the Draft Environmental Report (EIR) (Draft EIR) was released. The Draft EIR was circulated for public review and comment during the period from August 25 through October 10, 2016. During the open public comment period on the Draft EIR, a total of 10 comment letters were received.

The public comment period complied with the 45-day review period identified in CEQA Guideline section 15105. All of the comments received on the Draft EIR were responded to in writing in the Responses to Comments, which is a component (Section 3) of the Final EIR.

There have been numerous opportunities for public review and comment concerning the proposed Project and the environmental documents prepared for it, including City of Moreno Valley Planning Commission Meeting.

1.8 - GENERAL FINDINGS

The City hereby finds as follows:

- The City is the “Lead Agency” for the proposed Project evaluated in the Final EIR;
- The Draft EIR and the Final EIR were prepared in compliance with CEQA and the Guidelines;
- The City has independently reviewed and analyzed the Draft EIR and the Final EIR, and these documents reflect the independent judgment of the Council/City;
- A MMP has been prepared requiring mitigation measures and/or changes to the proposed Project, which the City has adopted and made a condition of approval of the proposed

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Project. The MMP is incorporated herein by reference and is considered part of the record of proceedings for the proposed Project;

- The MMP designates responsibility and anticipated timing for the implementation of mitigation measures; the City will serve as the MMP Coordinator;
- In determining whether the proposed Project has a significant impact on the environment, and in adopting these Findings pursuant to Section 21081 of CEQA, the City has complied with CEQA Sections 21081.5 and 21082.2;
- The impacts of the proposed Project have fully been analyzed to the extent feasible at the time of certification of the Final EIR;
- The City reviewed the comments received on the Draft EIR, and the responses thereto and has determined that neither the comments received nor the responses to such comments add significant new information regarding environmental impacts to the Draft EIR. The City has based its actions on full appraisal of all viewpoints, including all comments received up to the date of adoption of these Findings, concerning the environmental impacts identified and analyzed in the Final EIR;
- The responses to the comments on the Draft EIR that are contained in the Final EIR clarify and amplify the analysis in the Draft EIR;
- Having reviewed the information contained in the Draft EIR, Final EIR and the record of proceedings, as well as the requirements of CEQA and the Guidelines regarding recirculation of Draft EIRs, and having analyzed the changes to the proposed Project which have occurred since the close of the public review period, the City finds that there is no new significant information in the Final EIR and finds that recirculation is not required.
- The City has made no decisions that constitute an irretrievable commitment of resources toward the proposed Project prior to certification on the Final EIR, nor has the City previously committed to a definite course of action with respect to the proposed Project;
- The City has independently analyzed the Project and the EIR prepared for the Project, and has independently considered the imposition of mitigation measures and all other matters related thereto;
- Copies of all the documents incorporated by reference in the Final EIR are and have been available upon request at all times at the offices of the City, custodian or record for such documents or other materials;

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Having received, reviewed, and considered all information and documents in the record, the City hereby conditions the proposed Project as set forth in the Conditions of Approval and Mitigation Monitoring Program and finds as stated in these Findings of Fact and Statement of Overriding Considerations.

1.9 - CONSISTENCY WITH GENERAL PLAN AND ZONING CODE

The City's General Plan establishes land use designations for all properties within the City of Moreno Valley boundaries. These designations control the character and intensities of land uses permitted on private properties. All proposed development projects are required to comply with applicable land use designation(s) specified in the City General Plan.

The City of Moreno Valley General Plan Land Use Map designates the Project site as "Business Park/Light Industrial." As described in the General Plan, "[t]he primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio [FAR] of 1.00 and the average floor area ratio should be significantly less . . ." (City of Moreno Valley General Plan, p. 9-7). Distribution warehouse uses implemented under the Project would total a maximum of approximately 446,350 square feet on approximately 19.64 acres, yielding a FAR of approximately 0.51. Properties adjacent to the Project site on all sides are also designated Business Park/Light Industrial. Approximately 500 feet westerly of the Project site properties are designated "Open Space," recognizing the Clear Zone (CZ) area established at the southerly terminus of the March Air Force Base runway(s).

Current zoning of the Project site and surrounding properties is established under Specific Plan 208 (SP 208), Moreno Valley Industrial Area Plan (MVIAP) (formerly the Oleander Specific Plan). SP 208 land uses, including the Project site, are designated *Industrial*. Development concepts and uses proposed by the Project are permitted or conditionally permitted under the site's current SP 208 Industrial zoning designation.

The Project does not propose or require any change in land use designations, nor any increase in development intensity beyond that currently anticipated for the subject site. Thus, the Project is consistent with the City's General Plan, Zoning, and Specific Plan.

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SECTION 2:
POTENTIAL ADVERSE PROJECT LEVEL IMPACTS WHICH ARE LESS THAN SIGNIFICANT OR CAN BE MITIGATED TO A LEVEL OF INSIGNIFICANCE

The Final EIR identified potentially significant project-specific adverse impacts of the proposed project and proposed mitigation measures to avoid or substantially lessen those impacts where required. Those impacts and mitigation measures are identified in the following sections. The Moreno Valley Planning Commission finds, based on the facts set forth in the record, which include but are not limited to the facts set forth below, that the following impacts will be less than significant or that the incorporation of the identified mitigation measures will mitigate the following identified significant project-specific adverse impacts to a level that is considered less than significant.

2.1 - TRAFFIC AND CIRCULATION

Impact	**Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).**

2.1.1 -Potentially Significant Impact

The potential for Project to substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) was evaluated. The Final EIR indicates the Project will not substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) and that this potential impact is thus less than significant.

Finding

The Project will not substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Facts in Support of Finding

Efficient and safe access within, and access to, the Project is provided by the Project site plan design concept, site access improvements, and site adjacent roadway improvements included as components of the Project. On-site traffic signing and striping would be implemented in conjunction with detailed construction plans for the Project site.

To ensure appropriate design and implementation of all Project circulation improvements; and the final design of the Project site plan, to include locations and design of proposed driveways, are subject to review and approval by the City prior to the issuance of development permits. In addition,

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Police and Fire Department representatives would review the Project's plans to ensure that emergency access is provided consistent with Department(s) requirements.

Based on the preceding, the implemented Project inclusive of the design features noted at EIR Section 3.0, *Project Description* would not substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

It is also recognized that temporary and short-term traffic detours and traffic disruption could result during Project construction activities. Management and control of construction traffic would be addressed through the preparation and submittal of a construction area traffic management plan, to be reviewed and approved by City prior to or concurrent with Project building plan review(s). The Project Construction Traffic Management Plan (Plan), also summarized within the EIR Project Description, would identify traffic controls for any street closures, detours, or other potential disruptions to traffic circulation during Project construction. The Plan would also be required to identify construction vehicle access routes, and hours of construction traffic.

As supported by the preceding discussions and information presented in the EIR Project Description, the potential for the Project to substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) is less than significant.

References: Pages 4.1-49 through 4.1-50 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.**

2.1.2 -Potentially Significant Impact

The potential for the project to result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks was evaluated. The Final EIR indicates the Project will not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks and that this potential impact is thus less than significant.

Finding

The project will not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

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Facts in Support of Finding

MARB/IPA is located westerly of the Project site. No other airports of airfields are located proximate to the Project site or would otherwise be potentially affected by the Project.

The Project does not propose or require development or operations that would conflict with state law, federal regulations and/or adopted master plans and land use compatibility plans for MARB/IPA. Nor does the Project propose elements or aspects that would interfere with or obstruct City coordination with laws, regulations or plans for MARB/IPA.

The Project does not propose or require amendment to the Riverside County Airport Land Use Compatibility Plan (Riverside County ALUCP). Nor would the Project otherwise interfere or obstruct administration and maintenance of the Riverside County ALUCP.

Project compliance with land use planning provisions and restrictions established under the Riverside County ALUCP is implemented through City and Riverside County ALUC review of Project plans.

The Project's proposed warehouse/manufacturing uses are consistent with permitted or conditionally permitted uses identified under the Riverside County ALUCP Airport Compatibility Matrix (please refer to EIR Section 4.5, *Hazards and Hazardous Materials*, Figure 4.5-1). Further, the EIR discussions of potential Noise impacts (EIR Section 4.4), and potential Hazards/Hazardous Materials impacts (EIR Section 4.5) substantiate that the Project would not be adversely affected by the Airport or Airport operations. Project compatibility with the Airport and Airport Operations is documented further through the Project's Federal Aviation Administration (FAA) *Determination(s) of No Hazard to Air Navigation* (available through the City Community Development Department).

Pursuant to the Riverside County ALUCP, an avigation easement would be recorded against all Project properties within ALUCP Zone B2; deed notice and disclosure would be provided for all Project properties within ALUCP Zone C1.

As supported by the preceding discussion, the potential for the Project to result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks is considered less-than-significant.

References: Pages 4.1-50 through 4.1-51 of the Draft EIR, and any documents referenced or incorporated by reference therein.

2.2 - AIR QUALITY

Impact	**Conflict with or obstruct implementation of the applicable air quality plan.**

2.2.1 -Potentially Significant Impact

The potential for Project to conflict with or obstruct implementation of the applicable air quality plan was evaluated. The Final EIR indicates the Project will not conflict with or obstruct implementation of the applicable air quality plan and that this potential impact is thus less than significant.

Finding

The Project will not conflict with or obstruct implementation of the applicable air quality plan.

Facts in Support of Finding

The Project site is located within the SCAB, which is characterized by relatively poor air quality in the context of NAAQS and CAAQS. The SCAQMD has jurisdiction over an approximately 12,000-square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what used to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the SCAG, county transportation commissions, and local governments, as well as state and federal agencies to control and reduce Basin air pollutant emissions.

Currently, NAAQS and CAAQS are exceeded in most parts of the Basin. In response, the SCAQMD has developed and adopted a series of Air Quality Management Plans (AQMPs) outlining strategies to achieve state and national ambient air quality standards. AQMPs are periodically updated to reflect technological advances, recognize new or pending regulations, more effectively reduce emissions, accommodate growth, and minimize any negative fiscal impacts of air pollution control on the economy.

AQMP Consistency

The SCAQMD AQMP, last updated in 2012, incorporates the latest scientific and technical information and planning assumptions; updated emission inventory methodologies for various emissions source categories; and reflects information, plans, and programs presented in the SCAG 2012 Regional Transportation Plan/Sustainable Communities Strategy (2012 RTP). Air quality conditions and trends presented in the 2012 AQMP assume that regional development will occur in accordance with population growth projections identified by SCAG in its 2012 RTP.

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The SCAG 2012 RTP in turn derives its assumptions, in part, from general plans of cities located within the SCAG region. Accordingly, if a project is consistent with the development and growth projections reflected in an adopted general plan, that project is considered consistent with the growth assumptions in the 2012 AQMP. The 2012 AQMP further assumes that development projects within the region will implement appropriate strategies to reduce air pollutant emissions, thereby promoting timely implementation of the AQMP.

Criteria for determining consistency with the AQMP are identified at Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD *CEQA Air Quality Handbook* (1993), as listed below. Project consistency with, and support of these criteria is presented subsequently.

- **Criterion No. 1**: The project under consideration will not result in an increase in the frequency or severity of existing NAAQS/CAAQS air quality violations or cause or contribute to new NAAQS/CAAQS violations; or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

- **Criterion No. 2**: The project under consideration will not exceed the assumptions in the AQMP in 2011 or increments based on the years of Project build-out phase.

Criterion No. 1

The CAAQS and NAAQS comprise, and are reflected in, the SCAQMD Localized Significance Thresholds (LSTs) described within Section 4.2 of the DEIR. As discussed therein, the Project LST analysis substantiates that Project construction-source emissions and operational-source emissions would not exceed applicable LSTs, and therefore would not violate NAAQS or CAAQS. Further, the Project would implement applicable best available control measures (BACMs), and would comply with applicable SCAQMD rules, acting to further reduce its already less-than-significant air pollutant emissions. Moreover, the Project at its current location, proximate to local and regional transportation facilities, acts to reduce vehicle miles traveled (VMT) and associated mobile-source (vehicular) emissions. Additionally, Project incorporation of contemporary energy-efficiency/energy conservation technologies and operational programs; and compliance with SCAQMD emissions reductions and control requirements act to reduce stationary-source air emissions. These Project attributes and features are consistent with and support AQMP air pollution reduction strategies and promote timely attainment of AQMP air quality standards. On the basis of the preceding discussion, the Project is determined to be consistent with the first criterion.

Criterion No. 2

Criterion No. 2 addresses consistency (or inconsistency) of a given project with approved local and regional land use plans, and associated potential AQMP implications. That is, AQMP emissions

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models and emissions control strategies are based in part on land use data provided by local general plan documentation; and complementary regional plans, which reflect and incorporate local general plan information. Projects that propose general plan amendments may increase the intensity of use and/or result in higher traffic volumes, thereby resulting in increased stationary area source emissions and/or vehicle source emissions when compared to the AQMP assumptions. However, if a given project is consistent with and does not otherwise exceed the growth projections in the applicable local general plan, then that project would be considered consistent with the growth assumptions in the AQMP and would not affect the AQMP's regional emissions inventory for the Basin.

The Project does not propose or require any change in land use designations, nor any increase in development intensity beyond that currently anticipated for the subject site. Because the land uses and development intensities proposed by the Project are consistent with the currently adopted City General Plan and applicable zoning standards, the Project is in compliance with Consistency Criterion No. 2.

AQMP Consistency Conclusion

The Project would not result in or cause NAAQS or CAAQS violations. The Project does not propose or require any change in land use designations, nor any increase in development intensity beyond that currently anticipated for the subject site. The Project would not generate operational-source criteria pollutant emissions not already reflected in the current AQMP regional emissions inventory. Based on the preceding, the Project is considered to be consistent with the AQMP. The potential for the Project to conflict with or obstruct implementation of the applicable air quality plan is therefore considered less-than-significant.

References: Pages 4.2-28 through 4.3-31 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Violate any air quality standard or contribute substantially to an existing or projected air quality violation.**

2.2.2 -Potentially Significant Impact

The potential for the Project to violate any air quality standard or contribute substantially to an existing or projected air quality violation was evaluated. The Final EIR indicates that, with the required mitigation, the Project will not violate any air quality standard with respect to construction-source emissions or contribute substantially to an existing or projected air quality violation with respect to construction-source emissions, and that this potential impact is thus less than significant with respect to construction-source emissions.

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Finding

Pursuant to CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect of the construction-source emissions, as identified in the Final EIR.

Facts in Support of Finding

The potentially significant project-specific environmental effect has been eliminated or substantially lessened to a level that is less than significant by virtue of the following mitigation measures as identified in the Final EIR and incorporated into the project.

4.2.1 The following requirements shall be incorporated into Project plans and specifications in order to ensure implementation of SCAQMD Rule 403 and limit fugitive dust emissions:

- *All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour;*
- *The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day; and*
- *The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are limited to 15 miles per hour or less.*

4.2.2 Grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling. This requirement is based on the California Air Resources Board regulation in Title 13, Chapter 10, Section 2485, Division 3 of the California Code of Regulations, which imposes a requirement that heavy duty trucks not idle for greater than five (5) minutes at any location.

4.2.3 All off-road diesel-powered construction equipment ≥ 150 hp shall meet California Air Resources Board (CARB) Tier 4 emission standards.

4.2.4 Only "Zero-Volatile Organic Compounds" paints (no more than 150 grams/liter of VOC) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used.

The latest SCAQMD/California Air Pollution Control Officers Association (CAPCOA)-approved version of the California Emissions Estimator Model (CalEEMod, v2013.2.2) was utilized to estimate Project-related air pollutant emissions levels. Project emissions levels were then compared to applicable SCAQMD thresholds in order to determine if air quality standards would be exceeded; or if Project emissions would contribute substantially to existing or projected air quality violations. Unless otherwise noted, CalEEMod default values and assumptions were applied throughout.

Regional Impacts

Construction-Source Air Pollutant Emissions

Construction activities associated with the Project will result in emissions of CO, VOCs, NO_x, SO_x, PM_{10}, and $PM_{2.5}$. These emissions would be generated by the following construction activities:

- Site Preparation;
- Grading;
- Building Construction;
- Architectural Coatings; and
- Paving.

Within the scope of the Project activities listed above, vehicular emissions generated by construction worker commutes and construction materials deliveries are also reflected.

The approximate Project construction schedule is summarized at Table 4.2-5 of the Draft EIR. Air pollutant emissions based on the construction schedule presented here represents a "worst-case" analysis scenario. That is, should construction occur any time after the dates presented here, incremental and aggregate construction-source emissions would likely decrease since emission factors for construction equipment would progressively decrease in the future. This is due to the natural turnover of the older vehicle fleet and replacement with more fuel efficient equipment with enhanced emissions controls; and implementation of more stringent regulations which collectively act to reduce construction-source (and operational-source) emissions.

Construction equipment use by activity and duration is summarized at Table 4.2-6 of the Draft EIR and represents a reasonable approximation of the types and quantity of construction equipment employed on any given day.

Modeled maximum daily construction-source air quality impacts reflecting the above information is summarized at Table 4.2-7 of the Draft EIR.

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As shown at Table 4.2-7, maximum daily Project construction-source air pollutant emissions would exceed applicable SCAQMD regional thresholds for VOCs and NOx. These are potentially significant impacts. It is noted however, that the impacts stated do not take credit for pollutant emissions reductions achieved through implementation of Best Available Control Measures (BACMs), or reductions achieved through standard regulatory requirements (e.g., SCAQMD Rule 403). To ensure their timely implementation and monitored compliance, application of standard BACMs and mandated SCAQMD rule compliance are restated as construction-source air quality impact mitigation measures.

As indicated at Table 4.2-8 of the Draft EIR, implementation of Mitigation Measures 4.2.1 through 4.2.4 would reduce Project construction-source air pollutant emissions in aggregate, and in so doing would also achieve SCAQMD regional thresholds for VOC and NOx.

Construction-Source Emissions LST Analysis

The SCAQMD has issued guidance on applying CalEEMod to LST analyses. In this regard, CalEEMod calculates construction emissions (off-road exhaust and fugitive dust) based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment.

CalEEMod calculates construction-source emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment. The information used to determine the maximum daily disturbed-acreage for comparison to LSTs is contained in Table 4.2-11 of the Draft EIR.

Based on the information presented at Table 4.2-11, localized construction-source emissions concentrations were estimated. Detailed modeling protocols are presented in the Project AQIA, included at EIR Appendix C. Table 4.2-12 summarizes maximum daily localized construction-source emissions impacts at the nearest sensitive receptors. As indicated, unmitigated maximum daily construction-source emissions would exceed applicable LST for $PM_{10,}$ and would therefore be potentially significant.

Previous Mitigation Measures 4.2.1 through 4.2.3 would act to reduce Project construction-source emissions generally, and would also reduce construction-source NO_2 emissions concentrations to levels below applicable LTSs. As indicated at Table 4.2-13, with application of Mitigation Measures 4.2.1 through 4.2.3, Project construction-source LST impacts would be less-than-significant.

References: Pages 4-3 through 4-4 of the Mitigation Monitoring Plan contained in the Final EIR, and any documents referenced or incorporated by reference therein; pages 4.2-31 through 4.2-36 and 4.2-48 through 4.2-50 of the Draft EIR, and any documents referenced or incorporated by reference therein.

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Resolution 20
Date Adopted: February 7, 2017

Impact	**Expose sensitive receptors to substantial pollutant concentrations.**

2.2.3 -Potentially Significant Impact

The potential for Project to expose sensitive receptors to substantial pollutant concentrations was evaluated. The Final EIR indicates the Project will not expose sensitive receptors to substantial pollutant concentrations and that this potential impact is thus less than significant.

Finding

The Project will not expose sensitive receptors to substantial pollutant concentrations.

Facts in Support of Finding

Sensitive receptors can include uses such as long-term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child care centers, and athletic facilities can also be considered as sensitive receptors. As concluded in the above discussion of Localized Air Quality Impacts, the sensitive receptors nearest the Project site would not be subject to emissions exceeding SCAQMD LSTs. Nor would the Project create or result in localized CO hot spots. The Project HRA substantiates that the Project would not generate or result in localized concentrations of TACs that would create or result in potentially significant health risks.

Based on the preceding, the potential for the Project to expose sensitive receptors to substantial pollutant concentrations is considered less-than-significant.

References: Page 4.2-66 of the Draft EIR, and any documents referenced or incorporated by reference therein.

2.3 - NOISE

Impact	**Construction activities and associated noise would result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.**

2.3.1 -Potentially Significant Impact

The potential for the Project construction activities and associated noise to result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies was evaluated. The Final EIR indicates the Project will not result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and that this potential impact is thus less than significant.

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Finding

The Project will not result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Facts in Support of Finding

The construction noise analysis was prepared using reference noise level measurements taken to describe the typical construction activity noise levels for each stage of Project construction. The construction reference noise level measurements, provided at Table 10-1 of the Draft EIR's Noise Impact Analysis, represent a list of typical construction activity noise levels. Noise levels generated by heavy construction equipment can range from approximately 56 dBA to in excess of 68 dBA when measured at 200 feet. However, these noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 68 dBA measured at 200 feet from the noise source to the receiver would be reduced to 62 dBA at 400 feet from the source to the receiver, and would be further reduced to 56 dBA at 800 feet from the source to the receiver.

Construction activities within the Project site are anticipated to occur within five stages: site preparation, grading, building construction, paving, and architectural coating. To assess potential noise impacts associated with construction activities, five noise sensitive receptor locations were identified, as illustrated at Figure 4.4-3 of the Draft EIR.

Based on construction equipment reference noise levels and distance to the Project site, representative noise levels at the receptor locations have been developed, and are presented in Table 4.4-4 of the Draft EIR.

The unmitigated peak construction noise levels are expected to range from 56.1 to 67.5 dBA Leq at a distance of 200 feet from the Project site boundary. At this distance, Project construction noise may exceed the 65 dBA Leq daytime City of Moreno Valley Municipal Code standard. However, there are no sensitive receiver locations located within 200 feet of the Project site boundary. As shown at Table 4.4-4 of the Draft EIR, the peak construction noise levels experienced at the nearest sensitive receiver locations (R1—R5) are expected to range from 41.6 to 47.7 dBA Leq and will not exceed the 65 dBA Leq daytime City of Moreno Valley Municipal Code standard or the 80 dBA Leq City of Perris Municipal Code standard for construction activity.

References: Pages 4.4-21 through 4.4-24 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Construction activities and associated noise would result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.**

2.3.2 -Potentially Significant Impact

The potential for Project construction activities and associated noise to result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project was evaluated. The Final EIR indicates the Project construction activities and associated noise will not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project and that this potential impact is thus less than significant.

Finding

The Project construction activities and associated noise will not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Facts in Support of Finding

Construction-source noise is not considered a source of permanent noise increases, and associated threshold questions are not germane.

Based on the preceding, Project construction activities and associated noise will not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project, and this potential impact is thus less than significant.

References: Page 4.4-24 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Construction activities and associated noise would result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.**

2.3.3 - Potentially Significant Impact

The potential for the Project construction activities and associated noise to result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project was evaluated. The Final EIR indicates the Project will not result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project, and that this potential impact is thus less than significant.

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Finding

The Project will not result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Facts in Support of Finding

As discussed above and indicated in Table 4.4-4 of the Draft EIR, construction-source noise levels would not exceed City standards.

References: Page 4.4-24 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Vehicular-source noise would result in exposure of persons to, or generation of, noise levels in excess of standards established in the City's General Plan or Noise Ordinance, or other applicable standards of other agencies.**

2.3.4 - Potentially Significant Impact

The potential for vehicular-source noise to result in exposure of persons to, or generation of, noise levels in excess of standards established in the City's General Plan or Noise Ordinance, or other applicable standards of other agencies was evaluated. The Final EIR indicates that vehicular-source noise will not result in exposure of persons to, or generation of, noise levels in excess of standards established in the City's General Plan or Noise Ordinance, or other applicable standards of other agencies and that this potential impact is thus less than significant.

Finding

The Project's vehicular-source noise will not result in exposure of persons to, or generation of, noise levels in excess of standards established in the City's General Plan or Noise Ordinance, or other applicable standards of other agencies.

Facts in Support of Finding

The thresholds used in analyzing potential vehicle-source noise impacts of the Project are set forth in Table 4.4-5 of the Draft EIR.

To assess impacts resulting from offsite Project-related vehicular-source noise, the Noise Impact Analysis developed noise contours based on roadway average daily trip (ADT) estimates, and trip generation and distribution as presented in *Indian Street Commerce Center Traffic Impact Analysis* (Project TIA, Draft EIR Appendix B). The Project TIA reflects and analyzes traffic generated under

assumed maximum buildout conditions for the Project. Noise contours were developed for the following traffic scenarios:

- Existing Without / With Project: This scenario refers to the existing present-day noise conditions, without and with the proposed Project.

- Opening Year 2020 Without / With Project: This scenario refers to the background noise conditions at future Year 2020 without and with the proposed Project. This scenario corresponds to 2020 conditions, and includes all cumulative projects identified in the Traffic Impact Analysis.

Noise Impact Analysis Tables 7-1 through 7-4 present the noise contours developed for the above scenarios for all Study Area roadways. Please refer to EIR Appendix E.

Based on the noise contours, Tables 4.4-6 and 4.4-7 of the Draft EIR present a comparison of noise conditions along Study Area roadways without and with development realized pursuant to the Project under the above-described scenarios.

As shown in the Draft EIR, under Existing Conditions, Project traffic would not cause or result in increased noise levels that would exceed the 65 dBA CNEL threshold condition; nor would Project traffic cause or result in increased noise levels of greater than 1.5 dBA CNEL when the without-Project condition already exceeds 65 dBA CNEL.

As shown in the Draft EIR, under Year 2020 Conditions, Project traffic would not cause or result in increased noise levels that would exceed the 65 dBA CNEL threshold condition; nor would Project traffic cause or result in increased noise levels of greater than 1.5 dBA CNEL when the without-Project condition already exceeds 65 dBA CNEL.

References: Pages 4.4-24 through 4.4-27 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Vehicular-source noise would result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.**

2.3.5 - Potentially Significant Impact

The potential for vehicular-source noise to result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project was evaluated. The Final EIR indicates that vehicular-source noise will not result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project and that this potential impact is thus less than significant.

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Finding

The Project's vehicular-source noise will not result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Facts in Support of Finding

Vehicular-source noise is addressed as a permanent source of noise, rather than a temporary or periodic source of noise increases. As such, associated threshold questions are not germane.

References: Page 4.4-27 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Vehicular-source noise would result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.**

2.3.6 - Potentially Significant Impact

The potential for vehicular-source noise to result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project was evaluated. The Final EIR indicates that vehicular-source noise will not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project and that this potential impact is thus less than significant.

Finding

The Project's vehicular-source noise will not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Facts in Support of Finding

As discussed previously, Project traffic would not cause or result in increased noise levels that would exceed the City's 65 dBA CNEL threshold condition; nor would Project traffic cause or result in increased noise levels of greater than 1.5 dBA CNEL when the without-Project condition already exceeds 65 dBA CNEL. As such, vehicular-source noise would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

References: Page 4.4-28 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Project operational noise would result in exposure of persons to, or generation of, noise levels in excess of standards established in the City's General Plan or Noise Ordinance.**

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2.3.7 - Potentially Significant Impact

The potential for Project operational noise to result in exposure of persons to, or generation of, noise levels in excess of standards established in the City's General Plan or Noise Ordinance was evaluated. The Final EIR indicates that Project operational noise will not result in exposure of persons to, or generation of, noise levels in excess of standards established in the City's General Plan or Noise Ordinance and that this potential impact is thus less than significant.

Finding

The Project operational noise will not result in exposure of persons to, or generation of, noise levels in excess of standards established in the City's General Plan or Noise Ordinance.

Facts in Support of Finding

The thresholds used in analyzing potential operational/area-source noise impacts of the Project are set forth in Table 4.4-8 of the Draft EIR.

The future tenants of the proposed Project are currently unknown. To present the potential worst-case noise conditions, the DEIR's noise analysis assumes the Project would be operational 24 hours per day, seven days per week. Business operations would primarily be conducted within the enclosed building, with the exception of the loading and unloading of trucks at designated loading bays. The on-site Project-related noise sources are expected to include: roof-top HVAC equipment, idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods.

The Project's stationary/area-source noise levels were estimated based on reference noise level measurements of similar logistics warehouse buildings. Please refer to Section 9.3 of the Project Noise Impact Analysis, presented as Appendix E to the Draft EIR, for a detailed description of the reference noise level sources and locations.

Using the reference noise levels, it is possible to estimate the operational source noise levels generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receptor locations. The operational noise level calculations account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. With geometric spreading, sound levels attenuate (or decrease) at a rate of 6 dB for each doubling of distance from a point source (idling trucks, delivery truck activities, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods). Proposed noise sources, and their relationship to vicinity sensitive receptors, are illustrated at Figure 4.4-4 of the Draft EIR.

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Operational noise levels generated by the Project and received at proximate receptors are summarized at Table 4.4-9 of the Draft EIR. Table 4.4-9 indicates that the hourly noise levels associated with the Project at the five sensitive receiver locations are expected to range from 27.0 to 31.4 dBA Leq. As such, the Project-related stationary/area-source noise levels will satisfy the City of Moreno Valley 65 dBA Leq daytime and 60 dBA Leq nighttime, as well as the City of Perris 80 dBA Leq daytime and 60 dBA Leq nighttime exterior noise level standards at the nearby sensitive receiver locations.

The Project-related noise level contribution was evaluated at each receiver location based on the magnitude of the Project-related increase on the ambient noise levels. To describe the Project operational noise level contributions, the Project operational noise levels were combined with the existing ambient noise level measurements at the sensitive receiver locations. The difference between the combined Project and ambient noise levels describe the Project noise level contributions. Noise levels that would be experienced at receiver locations when Project-source noise is added to ambient daytime and nighttime conditions are presented at Tables 4.4-10 and 4.4-11 of the Draft EIR, respectively.

As indicated in the Draft EIR, the Project would not substantively contribute to daytime or nighttime ambient noise levels at nearby receiver locations. Therefore, the Project-related operational noise level contributions to the daytime or nighttime ambient noise levels at nearby sensitive receiver locations would not exceed the previously-presented significance thresholds.

Based on the preceding discussions, Project operational noise would not result in exposure of persons to, or generation of, noise levels in excess of standards established in the City's General Plan or Noise Ordinance.

References: Pages 4.4-28 through 4.4-32 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Project operational noise would result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.**

2.3.8 - Potentially Significant Impact

The potential for Project operational noise to result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project was evaluated. The Final EIR indicates that Project operational noise will not result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project and that this potential impact is thus less than significant.

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Finding

The Project operational noise will not result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Facts in Support of Finding

As discussed above, noise levels attributable to ongoing operational activities within the Project site would not exceed City Noise Ordinance Standards. Similarly, temporary and periodic peak noise events generated by operational activity within the Project site would not result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

References: Pages 4.4-32 through 4.4-33 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Project operational noise would result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.**

2.3.9 -Potentially Significant Impact

The potential for Project operational noise to result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project was evaluated. The Final EIR indicates that Project operational noise will not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project and that this potential impact is thus less than significant.

Finding

The Project operational noise will not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Facts in Support of Finding

As discussed above, noise levels attributable to ongoing operational activities within the Project site would not exceed City Noise Ordinance Standards. Similarly, operational activity within the Project site would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

References: Page 4.4-33 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise.**

2.3.10 - Potentially Significant Impact

The potential for exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise was evaluated. The Final EIR indicates that the Project will not expose persons to, or generate, excessive groundborne vibration or groundborne noise and that this potential impact is thus less than significant.

Finding

The Project will not expose persons to, or generate, excessive groundborne vibration or groundborne noise and that this potential impact is thus less than significant.

Facts in Support of Finding

The thresholds used in analyzing potential vibration impacts of the Project are set forth in Table 4.4-12 of the Draft EIR.

The following discussion addresses the potential groundborne vibration/groundborne noise impacts that may be generated by Project site construction activities and/or operational activities within the Project site.

Construction Vibration

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures, and soil type. It is expected that groundborne vibration from Project construction activities would cause only intermittent, localized intrusion. The proposed Project's construction activities most likely to cause vibration impacts are:

- Heavy Construction Equipment: Although all heavy mobile construction equipment has the potential of causing at least some perceptible vibration while operating close to buildings, the vibration is usually short-term and is not of sufficient magnitude to cause building damage. It is not expected that heavy equipment such as large bulldozers would operate close enough to any residences or buildings to cause a vibration impact.

- Trucks: Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes. Repairing the bumps and potholes generally eliminates the problem.

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Groundborne vibration levels resulting from construction activities occurring within the Project site were estimated by data published by the FTA. Construction activities that would have the potential to generate low levels of groundborne vibration within the Project site include grading and paving. Using the vibration source level of construction equipment provided on Table 6-7 of the Noise Impact Analysis and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration impacts. Table 4.4-13 of the Draft EIR presents the expected Project-related vibration levels at the five receptor locations.

As shown in the Draft EIR, construction of the Project is not expected to generate vibration levels exceeding the FTA maximum acceptable vibration standard of 80 (VdB). Further, impacts at the site of the closest sensitive receiver are unlikely to be sustained during the entire construction period, but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter.

Operational Vibration

Although the human threshold of perception for vibration is around 65 VdB, human response to vibration is not usually significant unless the vibration exceeds 70 VdB. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement condition. Typical vibration levels for heavy trucks at normal traffic speeds do not exceed 65 VdB, and therefore, will be below the FTA vibration threshold of 80 VdB at nearby sensitive receiver locations. Truck deliveries transiting on site will be travelling at very low speeds so it is expected that delivery truck vibration impacts at nearby homes will not exceed the 80 VdB vibration threshold.

Based on the preceding discussion, the potential for the Project to result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise is less-than-significant.

References: Pages 4.4-33 through 4.4-35 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the Project area to excessive noise levels.**

2.3.11 - Potentially Significant Impact

The potential for Project to expose people residing or working in the Project area to excessive aircraft/airport noise levels was evaluated. The Final EIR indicates the Project will not expose people residing or working in the Project area to excessive aircraft/airport noise levels was evaluated, and that this potential impact is thus less than significant.

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Finding

The Project will not expose people residing or working in the Project area to excessive aircraft/airport noise levels.

Facts in Support of Finding

The noise contour boundaries that are used to determine potential aircraft-related noise impacts associated with the March Air Reserve Base (MARB) are presented within the RC ALUCP and excerpted at Figure 4.4-5 of the Draft EIR. As shown, the Project site is located within the 60 to 65 dBA CNEL noise level contours, and therefore, represents a normally acceptable land use based on RC ALUCP compatibility criteria. Typical construction practices would therefore be sufficient to eliminate substantial noise intrusion upon indoor activities.

References: Page 4.4-36 of the Draft EIR, and any documents referenced or incorporated by reference therein.

2.4 - HAZARDS/HAZARDOUS MATERIALS

Impact	**Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.**

2.4.1 -Potentially Significant Impact

The potential for the Project to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment was evaluated. The Final EIR indicates that, with the required mitigation, the Project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment and that this potential impact is thus less than significant.

Finding

Pursuant to CEQA Guidelines Section 15091 (a)(1), changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

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Facts in Support of Finding

The potentially significant project-specific environmental effect has been eliminated or substantially lessened to a level that is less than significant by virtue of the following mitigation measure as identified in the Final EIR and incorporated into the project.

4.5.1 All plans, construction documents, and contracts shall contain the following or similar language: Contractors and developers are advised that underground Transite pipelines may be encountered within the Project site. If encountered, these features shall be documented and evaluated by a licensed environmental hazards remediation consultant/contractor. A final report of Transite pipe hazards encountered (if any) and associated remedial actions (if any) shall be submitted to the City. Abatement/disposal of asbestos resulting from removal of Transite pipelines shall be accomplished as detailed at EIR Section 4.5.4, Hazardous Waste Handling.

The following discussion summarizes the findings of the Phase I ESA prepared for the Project site regarding existing on-site hazards, as well as potential hazards associated with operations of facilities proposed under the Project.

There are no structures at the site; therefore, friable asbestos-containing building materials (ACM) and lead-based paints (LBP) are not likely present. Based on the historical agricultural usage at the site, there is a moderate potential for the presence of transite piping. If encountered, transite pipes should be removed by a licensed asbestos abatement contractor prior to or during redevelopment activities.

Based on the preceding, the potential for the Project to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment is considered less-than-significant as mitigated.

References: Page 4.5-19 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Result in a safety hazard for people residing or working in the project area for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, or within the vicinity of an airstrip.**

2.4.2 -Potentially Significant Impact

The potential for Project to result in a safety hazard for people residing or working in the project area for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, or within the vicinity of an airstrip was

evaluated. The Final EIR indicates the Project will not result in a safety hazard for people residing or working in the project area for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, or within the vicinity of an airstripthat this potential impact is thus less than significant.

Finding

The Project will not result in a safety hazard for people residing or working in the project area for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, or within the vicinity of an airstrip.

Facts in Support of Finding

The Project site lies within the area regulated under the 2014 Riverside County ALUCP for March ARB/IPA (ALUCP) and the 2005 March Air Reserve Base Air Installation Compatibility Use Zone Study (MARB AICUZ, AICUZ). The compatibility zones and associated criteria set forth in the ALUCP provide noise and safety compatibility protection equivalent to or greater than correlating criteria presented in the AICUZ (ALUCP, p.1). The analysis presented herein reflects the more stringent criteria established under the ALUCP.

Under the ALUCP, the Project site is overlain by Compatibility Zones B2 and C1 (please refer to Figure 4.5-1 of the Draft EIR). Basic Compatibility Criteria for these Zones are also presented at Figure 4.5-1. Project consistency with applicable Zone Criteria is summarized below.

Zone B2

The westerly portion of the Project site is overlain by Zone B2, as delineated under the ALUCP. Consistent with the Basic Compatibility Criteria for Zone B2, this portion of the Project site would not be developed, nor otherwise accommodate, any of the following: children's schools; daycare centers; libraries; hospitals; congregate care facilities; hotels/motels; places of assembly; buildings with more than three above ground habitable floors; noise-sensitive outdoor non-residential uses; critical community infrastructure facilities; or hazards to flight.

Consistent with other development conditions articulated for Zone B2, the Project site plan and building design concepts comply with the following criteria: Project structures would be located as far as possible from extended runway centerline(s); sound attenuation would be provided for all Project office uses in Zone B2 ensuring that interior noise levels would not exceed 45 dBA CNEL (please refer also to EIR Section 4.4, *Noise*); above-ground bulk storage of hazardous materials is not proposed or required.

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The Project does not propose designs or uses that would not encroach on restricted air space(s) nor would the Project structures otherwise would adversely affect airfield operations. Federal Aviation Administration (FAA) airspace review has been completed for the Project, and the FAA has issued *No Hazard to Air Navigation Determinations* for all Project facilities; the Riverside County ALUC has reviewed the Project and determined the Project to be consistent with the March Air Reserve Base/Inland Port Airport ALUCP (please refer to EIR Appendix I, Airport Compatibility Documentation). The Project does not propose or require facilities or uses that would generate electromagnetic radiation; an avigation easement would be recorded against all properties within Zone B2.

Zone C1

The easterly portion of the Project site is overlain by ALUCP Zone C1. Consistent with the Basic Compatibility Criteria for Zone C1, this portion of the Project site would not be developed with, nor otherwise accommodate any of the following: children's schools; daycare centers; libraries; hospitals; congregate care facilities; places of assembly; noise-sensitive outdoor non-residential uses; or hazards to flight.

Consistent with other development conditions articulated for Zone C1, the Project site plan concept and concept building designs comply with the following criteria: critical community infrastructure facilities are not required or proposed; above-ground bulk storage of hazardous materials is not required or proposed; sound attenuation would be provided for all Project office uses in Zone B2 ensuring that interior noise levels would not exceed 45 dBA CNEL (please refer also to Draft EIR Section 4.4, *Noise*). The Project does not propose or require facilities or uses that would generate electromagnetic radiation; deed notice and disclosure would be provided for all properties within Zone C1. The Project does not propose designs or uses that would not encroach on restricted air space(s) nor would the Project structures otherwise would adversely affect airfield operations. Federal Aviation Administration (FAA) airspace review has been completed for the Project, and the FAA has issued *No Hazard to Air Navigation Determinations* for all Project facilities; the Riverside County ALUC has reviewed the Project and determined the Project to be consistent with the March Air Reserve Base/Inland Port Airport ALUCP (please refer to EIR Appendix I, Airport Compatibility Documentation). The Project does not propose or require facilities or uses that would generate electromagnetic radiation; an avigation easement would be recorded against all properties within Zone B2.

Other Considerations

As noted at EIR Section 3.0, *Project Description*, the Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power (approximately 160,350 kWh/year) to serve all Project office areas (*Project Description*, p. 3-19).

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Given the Project's proximity to March ARB/IPA, there is the potential for the Project PV solar panel array to cause reflective glare that could adversely affect March ARB/IPA operations. The Federal Aviation Administration recommends analysis of these potential glare impacts employing the Sandia National Laboratories Solar Glare Hazard Analysis Tool (SGHAT). The SGHAT analysis of the concept Project PV panel array design (please refer to EIR Appendix I, Airport Compatibility Documentation) indicates that, if implemented, the Project PV solar panels would not result in or cause significant glare impacts that would adversely affect operations of March ARB/IPA.

Based on the preceding, the potential for the Project to: result in or cause a safety hazard for people residing or working in the Project area due to airport/airstrip operations; or to adversely affect airport/airstrip operations, is considered less-than-significant.

References: Pages 4.5-20 through 4.5-23 of the Draft EIR, and any documents referenced or incorporated by reference therein.

2.5 - HYDROLOGY AND WATER QUALITY

Impact	**Violate any water quality standards or waste discharge requirements.**

2.5.1 -Potentially Significant Impact

The potential for the Project to violate any water quality standards or waste discharge requirements was evaluated. The Final EIR indicates that the Project will not violate any water quality standards or waste discharge requirements, and that this potential impact is thus less than significant.

Finding

The Project will not violate any water quality standards or waste discharge requirements.

Facts in Support of Finding

The Project is mandated to acquire all necessary permits, and comply with City of Moreno Valley and RWQCB requirements for the Santa Ana Region, acting to preclude, or substantively reduce, the potential of the Project to violate any water quality standards or waste discharge requirements. As discussed below, and consistent with established City building code regulations, a site-specific drainage study, SWPPP, and WQMP reflecting precise pad locations, proposed drainage structures, detention facilities, water quality management features, BMPs, etc., would be required prior to the issuance of building permits. Project compliance in these regards acts to preclude stormwater discharges that would potentially violate water quality standards.

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- The Project would be developed and operated in compliance with City/SARWQCB regulations and water quality standards. More specifically, the Project would provide connection to, and interface with, existing and proposed drainage systems in the least invasive manner possible. Design, configuration, and locations of proposed drainage system improvements will be reviewed and approved by the City prior to, or concurrent with, application for grading permits.

- The Project's bio-retention basins would provide for elimination/reduction of pollutant discharges, including capture and treatment of dry weather and first flush runoff in a manner consistent with City and SARWQCB policies and requirements. Other permeable areas, such as landscape planters, fingers, and perimeter planters act to further enhance on-site capture and absorption of storm flows.

- All stormwater discharges would be required to comply with performance standards established under the RCFCWCD NPDES permit. Consistent with SARWQCB, RCFCWCD and City requirements, discharge of waste materials to drainage areas, streambeds, or streams would be prohibited. Appropriate BMPs will be employed throughout construction processes, thereby controlling potential discharge of pollutants, preventing sewage spills, and avoiding discharge of sediments into streets, stormwater channels, or waterways. Selected BMPs would act to:

    - Control and prevent potential contaminant spills;
    - Prevent runoff from off-site areas from flow across the construction site(s);
    - Slow runoff rates across the site;
    - Provide soils stabilization; and
    - Remove sediment from on-site runoff before it leaves the site.

- Similarly, the Project's mandated WQMP would act to control potential discharge of pollutants, prevent sewage spills, and avoid discharge of sediments into streets, stormwater channels, or waterways due to operational activities over the life of the Project. All required drainage improvements would be designed and implemented consistent with City, SARWQCB, and RCFCWCD design and performance standards. Please refer also to the Project WQMP provided at Draft EIR Appendix G.

The Project Does Not Propose or Require Elements that Would Violate Waste Discharge Requirements

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The Project would connect to the existing sanitary sewer system serving the Project area, and does not propose or require septic systems or other alternative treatment of wastewater that would potentially result in violation of waste discharge requirements. Further, the Project's plans for connection to existing sanitary sewer infrastructure facilities are subject to review and approval by the City and EMWD. The Project Applicant would also be required to apply for service and pay a mandated Connection Fee and ongoing Service Fees. Fees paid by the Project would be applied toward maintenance and expansion of City and EMWD wastewater conveyance and treatment facilities. Wastewater generated by the Project is typical of commercial generators and wastewater resulting from the Project uses would not require treatment beyond that provided by existing EMWD facilities. Project compliance in these regards would act to preclude violation of waste discharge requirements.

Based on the preceding discussion, the potential for the Project to violate any waste discharge requirements is determined to be less-than-significant.

References: Pages 4.6-16 through 4.6-18 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding or substantial erosion or siltation on- or off-site; or create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or otherwise substantially degrade water quality.**

2.5.2 -Potentially Significant Impact

The potential for the Project to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding or substantial erosion or siltation on- or off-site; create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; violate any water quality standards or waste discharge requirements; or otherwise substantially degrade water quality was evaluated. The Final EIR indicates that, with the required mitigation, the Project will not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding or substantial erosion or siltation on- or off-site; create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; violate any water quality standards or waste discharge requirements; or otherwise substantially degrade water quality, and thus this potential impact is less than significant.

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Finding

Pursuant to CEQA Guidelines Section 15091 (a)(1), changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Facts in Support of Finding

The potentially significant project-specific environmental effect has been eliminated or substantially lessened to a level that is less than significant by virtue of the following mitigation measures as identified in the Final EIR and incorporated into the project.

4.6.1 Prior to grading plan approval and the issuance of a grading permit by the City of Moreno Valley, the Project Applicant shall provide evidence to the City that a notice of intent (NOI) has been filed with the Regional Water Quality Control Board for coverage under the State NPDES General Construction Permit for discharge of stormwater associated with construction activities. The SWPPP shall identify Best Management Practices (BMPs) intended to prevent the release of sediment and pollutants into downstream waterways. Examples of construction BMPs to be incorporated in the Project include, but are not limited to, the following:

- *Silt Fences;*
- *Check Dams;*
- *Gravel Bag Berms;*
- *Street Sweeping and Vacuuming;*
- *Sand Bag Barriers;*
- *Storm Drain Inlet Protection;*
- *Wind Erosion Control;*
- *Stabilized Construction Entrance/Exit; and*
- *Entrance/Outlet Tire Wash.*

Post-construction BMPs to reduce sediments and other pollutants include, but are not limited to, the following:

- *Providing permanent cover to stabilize the disturbed surfaces after construction has been completed;*

- *Incorporating structural BMPs (e.g., grease traps, debris, screens, continuous deflection separators, oil/water separators, drain inlet inserts) into the Project's design to provide detention and filtering of contaminants in urban runoff prior to discharge to stormwater facilities;*

- *Precluding non-stormwater discharges to the stormwater system; and*

- *Performing monitoring of discharges to the stormwater system.*

4.6.2 Prior to the issuance of grading permits, the Project Applicant shall submit a final Water Quality Management Plan (WQMP) to the City of Moreno Valley. The WQMP shall identify Best Management Practices (BMPs) addressing all post-construction pollutant discharges. Examples of BMPs included in the Project's Preliminary WQMP include the following:

Source Control/Non-Structural BMPs

- *Education of property owners, operators, tenants, occupants, or employees;*

- *Street Sweeping of Private Streets and Parking Lots;*

- *Drainage facility inspection and maintenance;*

- *Roof Runoff Controls;*

- *Efficient Irrigation;*

- *Protection of Slopes and Channels;*

- *Storm Drain stenciling and signage;*

- *Trash Storage Areas and Litter Control;*

- *Irrigation system and landscape maintenance; and*

- *Loading dock drainage controls.*

Site Design/Structural BMPs

- *Maximize permeable areas;*

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- *Minimize street, sidewalk, and parking lot aisle widths;*
- *Maintain natural drainage patterns;*
- *Incorporate drought-tolerant landscaping;*
- *On-site ponding areas or retention facilities to increase opportunities for infiltration;*
- *Convey roof runoff to landscaping/permeable areas prior to discharge to storm drains;*
- *Drain sidewalks and walkways to adjacent landscaped areas; and*
- *Integration of landscaping and drainage designs.*

Project Stormwater Management System Addresses Potential Hydrologic Impacts

The Project incorporates all necessary drainage and stormwater management systems, and would comply with all stormwater system design, construction, and operational requirements mandated under the City Municipal Code and pursuant to policies and regulations established by other agencies including: RCFCWCD, SARWQCB, and SWRCB. In combination, the Project's stormwater management components, and compliance with regulatory requirements would act to preclude potentially adverse drainage and stormwater runoff impacts.

At present, stormwater runoff from the majority of the Project site sheet flows easterly/southeasterly across the site to Indian Street. Under post-development conditions, the Project stormwater management system would convey and discharge stormwater runoff in a manner comparable to pre-development discharge patterns.

Under developed site conditions, stormwater runoff would sheet flow to on-site drainage swales and cross gutters and would be directed easterly/southeasterly to bio-retention basins located along the site's easterly and southerly boundaries. The bio-retention basins have been designed consistent with applicable WQMP requirements for the Project. More specifically, pursuant to the September 2011 RCFCWCD *Design Handbook for Low Impact Development (LID) Best Management Practices*, design specifications and performance standards, the total required Volume-based BMP (V_{BMP}) retention capacity for the Project is approximately 31,257 cubic feet. The Project bio-retention basins are designed to provide an estimated 33,274 cubic feet of retention capacity (Project Drainage Study, p. 1) and therefore comply with RCFCWCD LID specifications and requirements. Maximum drawdown times for these basins would not exceed 48 hours. Please refer also to the Project WQMP presented at Draft EIR Appendix G.

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The Project bio-retention basins would then discharge via an underground storm drain system connecting to the existing MDP storm drain located in adjacent Indian Street. This storm drain has been designed and constructed in anticipation of stormwater discharges that would result from development such as that proposed by the Project.

All Project stormwater management system improvements would be constructed by the Project Applicant, or would otherwise be assured (via Project Conditions of Approval or other means established by the Lead Agency) to be in place and operational prior to issuance of the first Certificate of Occupancy for the Project.

The Project stormwater management system would be developed and operated in compliance with City, RCFCWCD, SARWQCB, and SWRCB polices and regulations and water quality performance standards. The Project would provide connection to existing and proposed drainage systems in the least invasive manner possible. Design, configuration, and locations of proposed drainage system improvements would be reviewed and approved by the City and RCFCWCD prior to, or concurrent with, application for grading permits.

Based on the preceding, implementation of the Project stormwater management system would maintain existing drainage patterns and would not increase runoff in a manner which would exceed the capacity of the existing or planned stormwater drainage systems.

Project SWPPP and Compliance with Regulatory Requirements Address Potential Construction-Source Water Quality Impacts

During site preparation activities prior to construction, existing groundcover would be removed from the site, exposing the Project site to increased wind and water erosion potentials. Further, construction site stormwater runoff may carry increased loads of sediment, heavy metals and petroleum hydrocarbons (from construction equipment operations) which could degrade water quality. In accordance with NPDES and SWPPP requirements, the Project Applicant would be required to prepare a construction activities erosion control plan to alleviate potential sedimentation and stormwater discharge contamination impacts that could result from Project construction activities.

The Project Applicant would also be responsible for compliance with the General Construction NPDES permit from the SARWQCB by filing a Notice of Intent to Commence Construction Activities. Under the General Construction Permit, discharge of materials other than stormwaters is prohibited. The Project Applicant would be required to prepare, retain at the construction site, and implement a SWPPP which identifies the sources of sediments and other pollutants that affect the quality of stormwater discharge, and implement practices to reduce sediment and other pollutants to stormwater discharge. The SWPPP would identify both construction and post-construction BMPs to reduce sediments and other pollutants.

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Implementation of the Project SWPPP and compliance with applicable NPDES and SARWQCB requirements would ensure that potential construction-source water quality impacts of the Project are reduced below the level of significance. Mitigation Measure 4.6.1 (presented above) is incorporated to ensure timely monitored compliance with Project SWPPP, NPDES, and SARWQCB requirements.

Project WQMP and Compliance with Regulatory Requirements Address Potential Operational-Source Water Quality Impacts

Over the life of the Project, contaminants such as oil, fuel and grease that are spilled or left behind by vehicular traffic, would collect and concentrate on paved surfaces. During storm events, these contaminants are washed into the storm drain system and may potentially degrade receiving water quality. Stormwater runoff from paved surfaces within the developed Project area could carry a variety of urban wastes, including greases and oils and small amounts of metals which are common by-products of vehicular travel. In addition, storm runoff would likely contain residual amounts of fertilizers and plant additives washed off from landscaped areas within the Project site.

Recognizing the potential hazards of such urban runoff, the EPA has issued regulations which require municipalities to participate in the NPDES. As part of this program, the SARWQCB has issued an NPDES permit for urban runoff to the RCFCWCD, and the City of Moreno Valley has been established as a co-permittee. Compliance with the provisions specified in the NPDES permit ensures proper management and disposal of urban runoff from the Project.

The Project Applicant would be responsible for obtaining a General Permit for stormwater discharge from the SARWQCB, in accordance with the Notice of Intent instructions. Under the General Permit, discharge of materials other than stormwater is prohibited. In support of the above requirements, the Project Applicant would also be required to develop and implement a Project-specific WQMP addressing all post-construction pollutant discharges. A draft of the Project WQMP is included at Draft EIR Appendix G. As required under Mitigation Measure 4.6.2, above, the Project would be required to submit a final WQMP prior to the issuance of grading permits.

Based on compliance with applicable NPDES requirements, and implementation of the Project WQMP to include any additional requirements stipulated by the City and/or SARWQCB the potential for the Project to result in a potential for discharge of stormwater pollutants from post-construction activities; otherwise result in any other potential impacts to stormwater runoff from post-construction activities; or otherwise substantially degrade water quality would be reduced below the level of significance. Mitigation Measure 4.6.2 (presented above) is incorporated to ensure timely monitored compliance with Project WQMP, NPDES, and SARWQCB requirements.

As supported by the preceding discussions, the Project would implement stormwater management system improvements and comply with all regulatory requirements acting to reduce potential impacts

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related to or affecting the rate or amount of surface runoff; erosion or siltation on- or off-site; capacity exceedance of existing or planned stormwater drainage systems; introduction of substantial additional sources of polluted runoff; or otherwise substantially degrade water quality is determined to be less-than-significant. Mitigation Measures 4.6.1 and 4.6.2 are incorporated to ensure timely monitored compliance with Project SWPPP, WQMP, NPDES, and SARWQCB requirements.

Conclusion

Based on site-specific hydrologic modeling presented at Draft EIR Appendix G, the Project stormwater management system concept incorporates those improvements and operational elements necessary to adequately collect and convey on- and off-site stormwaters resulting from development of the Project site. Mitigation Measures 4.6.1 and 4.6.2 are incorporated to ensure timely monitored compliance with Project SWPPP, WQMP, NPDES, and SARWQCB requirements acting to reduce the potential for the Project to: substantially alter the existing drainage pattern of the site or area; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; result in substantial erosion or siltation on- or off-site; create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems; provide substantial additional sources of polluted runoff; or otherwise substantially degrade water quality to levels that would be less-than-significant.

References: Pages 4.6-18 through 4.6-25 of the Draft EIR, and any documents referenced or incorporated by reference therein.

2.6 - BIOLOGICAL RESOURCES

Impact	**Substantially affect, either directly or through habitat modifications, any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife (CDFW, formerly California Department of Fish and Game) or United States Fish and Wildlife Service (USFWS).**

2.6.1 -Potentially Significant Impact

The potential for the Project to substantially affect, either directly or through habitat modifications, any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife (CDFW, formerly California Department of Fish and Game) or United States Fish and Wildlife Service (USFWS) was evaluated. The Final EIR indicates that, with the required mitigation, the Project will not substantially affect, either directly or through habitat modifications, any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the CDFW or USFWS.

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Finding

Pursuant to CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Facts in Support of Finding

The potentially significant project-specific environmental effect has been eliminated or substantially lessened to a level that is less than significant by virtue of the following mitigation measures as identified in the Final EIR and incorporated into the project.

4.7.1 To avoid impacts to nesting birds and to comply with the federal Migratory Bird Treaty Act of 1918 (MBTA):

- *If possible, all vegetation removal activities shall be scheduled from August 1 to February 15, which is outside the nesting season. This would ensure that no active nests would be disturbed and that removal could proceed rapidly.*

- *If vegetation is to be cleared during the nesting season (February 15 – July 31), all suitable habitat shall be thoroughly surveyed for the presence of nesting birds by a qualified biologist 72 hours prior to clearing. If any active nests are detected, the area shall be flagged and mapped on the construction plans along with a minimum 50-foot buffer and up to 300 feet for raptors, with the final buffer distance to be determined by the qualified biologist. The buffer area shall be avoided until the nesting cycle is complete or it is determined that the nest has failed. In addition, the biologist will be present on the site to monitor the vegetation removal to ensure that any nests, which were not detected during the initial survey, are not disturbed.*

4.7.2 Within 30 days prior to grading, a qualified biologist shall conduct a Project site survey and make a final determination regarding the presence or absence of the burrowing owl. The determination shall be documented and shall be submitted, reviewed, and accepted by the City of Moreno Valley Planning Division prior to the issuance of a grading permit. Survey documentation shall incorporate following provisions:

- *In the event that the pre-construction survey identifies no burrowing owls on the property, a grading permit may be issued without restriction.*

- *In the event that the pre-construction survey identifies the presence of burrowing owl(s,) the Applicant shall implement incumbent CDFW burrowing owl mitigation protocols.*

As set forth in the Final EIR, no special-status plant or wildlife species were identified at the Project site during the field survey. Due to extensive disturbance of the Project site, no special-status plant species are considered to be present onsite. Thus, no potentially significant impacts to special-status plant species are anticipated as a result of site development. Due to the absence of native vegetation and the disturbance at the Project site, special-status wildlife species are unlikely to be present at the Project site.

Existing and proposed industrial development, as well as ongoing human activities, effectively isolated the Project site from connecting to undisturbed, natural habitats still available in the area. The isolation and disturbance level of the Project site limits the site's viability to provide suitable habitat for sensitive biological resources (i.e., sensitive plant and wildlife species, drainage features).

No nesting birds were observed and, given the heavy level of disturbance and routine maintenance activities, none are expected to occur. However, the Project site has the potential to provide suitable nesting opportunities for ground-nesting avian species (e.g., killdeer (*Charadrius vociferous*)). Additionally, the ornamental pines and Chinaberry trees located on the southwestern portion of the Project site have the potential to provide suitable nesting opportunities for avian species. Further, the Project site and surrounding properties may provide limited potential habitat for the burrowing owl. Mitigation Measures 4.7.1 and 4.7.2 (following) has been incorporated to ensure avoidance of any potential impacts, in accordance with MBTA and California Fish and Game Code requirements. With the implementation of Mitigation Measures 4.7.1, and 4.7.2, the Project's potential impacts to nesting migratory bird species and the burrowing owl are considered less-than-significant.

References: Pages 4-8 through 4-9 of the Mitigation Monitoring Plan contained in the Final EIR, and any documents referenced or incorporated by reference therein; pages 4.7-10 through 4.7-12 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or California plans, policies or regulations or by the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS); Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.**

2.6.2 -Potentially Significant Impact

The potential for the Project to have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or California plans, policies or regulations or by the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS); and the potential for the Project to have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool,

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coastal, etc.) through direct removal, filling, hydrological interruption, or other means was evaluated. The Final EIR indicates that the Project will not have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or California plans, policies or regulations or by the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS); and the Project will not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means, and that this potential impact is thus less than significant.

Finding

The Project will not have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or California plans, policies or regulations or by the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS); and the Project will not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Facts in Support of Finding

No wetlands, riparian habitat or other sensitive communities exist within the Project site. Nor does the Project propose uses or activities that would substantially or adversely affect any off-site wetlands or riparian areas. As such, the Project will not affect any riparian habitat, any other sensitive natural community, or federally protected wetlands.

References: Page 4.7-12 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.**

2.6.3 -Potentially Significant Impact

The potential for the Project to interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites was evaluated. The Final EIR indicates that the Project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites and that this potential impact is thus less than significant.

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Finding

The Project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.

Facts in Support of Finding

During preparation of the MSHCP, wildlife corridors and habitat linkages throughout western Riverside County were analyzed extensively. No MSHCP wildlife habitat linkages or movement corridors were identified at the Project site. Nor does the Project propose facilities or activities that would substantively and adversely affect any offsite designated wildlife habitat linkage or movement corridor. Based on the preceding, impacts to wildlife corridors, habitat linkages, or wildlife nursery sites that would occur as a result of the Project are determined to be less-than-significant.

References: Page 4.7-13 of the Draft EIR, and any documents referenced or incorporated by reference therein.

2.7 - CULTURAL RESOURCES

Impact	**Cause a substantial adverse change in the significance of historic and archaeological resources as defined in §15064.5.**

2.7.1 -Potentially Significant Impact

The potential for the Project to cause a substantial adverse change in the significance of historic and archaeological resources as defined in §15064.5 was evaluated. The Final EIR indicates that the Project will not result in a substantial adverse change in the significance of historic and archaeological resources as defined in §15064.5 and that this potential impact is thus less than significant.

Finding

The Project will not result in a substantial adverse change in the significance of historic and archaeological resources as defined in §15064.5.

Facts in Support of Finding

A site-specific field survey was completed by two trained archaeological surveyors walking east/west transects originating at the northeastern corner of the property (Indian Street at Grove View Road) and proceeding from north to south. Transects averaged 15 meters apart (45 feet); where the

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vegetation was sparse, transects were lessened to 10 meter intervals. The survey was supplemented by field notes and a detailed photographic record. No evidence of historic or prehistoric archaeological resources was identified during the recent survey. The soils were sufficiently disturbed by years of agriculture harvesting (grains) and more recent disking and weed abatement to suggest that buried resources may have been brought to the surface, if present. The Cultural Resources Survey determined the property lacks any evidence of historic or prehistoric archaeological resources and should be considered clear of any such resources.

References: Page 4.8-15 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.**

2.7.2 -Potentially Significant Impact

The potential for the Project to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature was evaluated. The Final EIR indicates that, with the required mitigation, the Project will not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature and that this potential impact is thus less than significant.

Finding

Pursuant to CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Facts in Support of Finding

The potentially significant project-specific environmental effect has been eliminated or substantially lessened to a level that is less than significant by virtue of the following mitigation measures as identified in the Final EIR and incorporated into the project.

4.8.1 Any excavation exceeding five feet below the current grade shall be monitored by a qualified paleontological monitor. If older alluvial deposits are encountered in shallower contexts, monitoring should be initiated once these deposits area encountered. The paleontological monitoring program should follow the local protocols of the Western Center (Hemet) and a paleontological monitoring plan should be developed prior to the ground altering activities. The extent and duration of the monitoring can be determined once the grading plan is understood and approved.

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According to the City of Moreno Valley General Plan, as well as previous studies in the Project vicinity, the site consists of both younger and older Quaternary deposits. The older alluvial deposits have been identified as sensitive for the presence of fossils in a buried context. Therefore, excavations within the Project site could impact the older alluvial deposits and, there is a potential for the site to yield fossil specimens similar to those identified on other properties in the Moreno/San Jacinto/Perris Valleys areas. Although the site-specific field survey failed to identify any surface evidence of fossil specimens, the Cultural Resources Survey concluded that the site has a moderate to high level of sensitivity for paleontological resources. As such, the Survey recommended subsurface monitoring, as required by Mitigation Measure 4.8.1. With implementation of Mitigation Measure 4.8.1, this potential impact is less than significant.

References: Page 4-10 of the Mitigation Monitoring Plan contained in the Final EIR, and any documents referenced or incorporated by reference therein; pages 4.8-15 through 4.8-16 of the Draft EIR, and any documents referenced or incorporated by reference therein.

Impact	**Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074.**

2.7.3 -Potentially Significant Impact

The potential for the Project to cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 was evaluated. The Final EIR indicates that, with the required mitigation, the Project will not cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 and that this potential impact is thus less than significant.

Finding

Pursuant to CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Facts in Support of Finding

The potentially significant project-specific environmental effect has been eliminated or substantially lessened to a level that is less than significant by virtue of the following mitigation measures as identified in the Final EIR and incorporated into the project.

4.8.2 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a professional archaeological monitor has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities and that the monitor has the

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authority to temporarily halt and redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project archaeologist, with input from the Pechanga Tribe, shall prepare a Cultural Resources Monitoring Plan (CRMP) to document protocols for inadvertent finds, to determine potential protection measures from further damage and destruction for any identified archaeological resource(s)/tribal cultural resources (TCRs), outline the process for monitoring and for completion of the final Phase IV Monitoring Report. If any archaeological and/or TCRs are identified during monitoring, these will also be documented and addressed per standard archaeological protocols in the Phase IV report, with the exception of human remains which will be addressed per Mitigation Measure 4.8.6. The Project Archaeologist shall attend the pre-grading meeting with the City and contractors to explain and coordinate the requirements of the monitoring program.

4.8.3 At least 30 days prior to the issuance of a grading permit, the Applicant shall contact the Pechanga Band of Luiseño Indians to develop a Cultural Resources Treatment Agreement and shall provide evidence to the City of Moreno Valley that the professionally qualified Native American monitor(s) has been secured, and that the Tribe shall be allowed to monitor all mass grading and trenching activities. The Tribal representative(s) shall attend the pre-grading meeting with the City and contractors to explain and coordinate the requirements of the monitoring program.

4.8.4 If, during mass grading and trenching activities, the Archaeological or Pechanga Monitors suspect that an archaeological resource and/or TCR may have been unearthed, the monitor identifying the potential resources, in consultation with the other monitor as appropriate, shall immediately halt and redirect grading operations in a 50-foot radius around the find to allow identification and evaluation of the suspected resource. The Native American monitor(s) or appropriate representative(s) and the archaeological monitor shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. The archaeological monitor and Pechanga monitor(s) or appropriate representative(s), the Project Applicant, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). All sacred sites, should they be encountered within the Project area, shall be avoided and preserved as the preferred mitigation, if feasible.

4.8.5 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

> *"If any suspected archaeological resources are discovered during grounddisturbing activities and the archaeological monitor or Pechanga representatives are not present, the construction supervisor is obligated to halt work in a 50-foot radius around the find and call the Project archaeologist and the Pechanga representatives to the site to assess the significance of the find."*

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4.8.6 If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the Coroner. If the Riverside County Coroner determines the remains to be Native American, the California Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately notify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98.

4.8.7 Prior to building permit issuance, the Project archaeologist shall prepare a final Phase IV Monitoring Report as outlined in the CRMP, which shall be submitted to the City Planning Division, Pechanga Band of Luiseño Indians, and the Eastern Information Center at the University of California, Riverside. The report shall document Project impacts to archaeological and tribal cultural resources, if any. All cultural material, excluding sacred, ceremonial, grave goods and human remains, collected during the grading monitoring program and from any previous archaeological studies or excavations on the Project site shall be curated, as determined by the treatment plan, according to the current professional repository standards and may include the Pechanga Bands curatorial facility or the Western Science Center in Hemet at the landowners discretion.

A sacred lands search request was sent to the Native American Heritage Commission (NAHC). Letters were sent to 21 local Native American representatives wishing to be informed of projects within their traditional territories. A response to the NAHC sacred lands search request has been received from the Rincon Band of Luiseño Indians. In the response, the Rincon Band of Luiseño Indians representative states that although the Project site is within the Luiseño Aboriginal Territory, it is not located within Rincon's Historic Boundaries. The Rincon Band of Luiseño Indians representative also states that they do not have any additional information regarding the site.

Additionally, the Pechanga Band of Luiseño Indians submitted comments on the Notice of Preparation in April 2016. The Pechanga Band of Luiseño Indians NOP Response is noted at EIR Table 1.7-1, *List of NOP Respondents and Summary of NOP Comments*, and the Pechanga Band of Luiseño Indians NOP Response is provided at EIR Appendix A. The Pechanga Band of Luiseño Indians submitted a formal request to consult with the Lead Agency under AB 52 on February 22, 2016. Formal consultation with the lead Agency occurred on April 25, 2016 and through email/telephone communication thereafter.

During the consultation, the Pechanga Band of Luiseño Indians informed the City that the Project is located within a Traditional Cultural Landscape (TCL), a type of Tribal Cultural Resource (TCR).

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Although the Project development will impact a TCR, Pechanga did not request formal mitigation measures to address the cumulative and potential direct impacts this Project may have; thus, conditions of approval were requested that would include both archaeological and Native American monitoring as well as the standard City Inadvertent Finds language.

References: Pages 4-10 through 4-14 of the Mitigation Monitoring Plan contained in the Final EIR, and any documents referenced or incorporated by reference therein; pages 2-3 through 2-7 of the Final EIR, and any documents referenced or incorporated by reference therein; pages 4.8-16 through 4.8-17 of the Draft EIR, and any documents referenced or incorporated by reference therein.

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SECTION 3:
ADVERSE PROJECT-LEVEL AND CUMULATIVE IMPACTS THAT CANNOT BE MITIGATED TO A LEVEL OF INSIGNIFICANCE

The Final EIR identified the following traffic, air quality, and greenhouse gas/global climate change impacts of the proposed project that can not be mitigated to less than significant.

Traffic

The Project would construct, or pay required fees toward, completion of all necessary Study Area transportation/traffic system improvements. At the significantly-impacted locations noted below, the Project cannot feasibly construct the required improvements, and/or payment of fees would not assure their timely completion.

Cumulatively Significant Impacts

Intersections

Pending completion of required improvements, the Project's incremental contributions to Opening Year Conditions cumulative traffic impacts at or affecting the following intersections are considered cumulatively significant and unavoidable:

Intersection ID No.	Intersection Location
1	I-215 SB Ramps/Harley Knox Blvd.
2	I-215 NB Ramps/Harley Knox Blvd.
3	Western Way / Harley Knox Blvd.
4	Patterson Ave. / Harley Knox Blvd.
7	Indian St. / Grove View Rd.
10	Indian St. / Harley Knox Blvd.

Roadway Segments

Pending completion of required improvements, the Project's incremental contributions to Opening Year Conditions cumulative traffic impacts at or affecting the following roadway segments are considered cumulatively significant and unavoidable:

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Roadway Segment ID No.	Roadway	Segment Limits
2	Harley Knox Blvd.	I-215 NB Ramps to Western Way
3	Harley Knox Blvd.	East of Western Way
4	Harley Knox Blvd.	West of Patterson Ave.
9	Indian St.	South of Nandina Ave.
10	Indian St.	North of Grove View Rd.
11	Indian St.	South of Grove View Rd.

Freeway Facilities

Pending completion of required improvements, the Project's incremental contributions to Opening Year Cumulative traffic impacts at or affecting the following freeway facilities are considered cumulatively significant and unavoidable:

	Freeway Segment
1	I-215, Northbound, University Avenue to Martin Luther King Boulevard
2	I-215, Northbound, Box Springs Road to SR-60/I-215 Freeway
3	I-215, Northbound, Eucalyptus Avenue to Alessandro Boulevard
4	I-215, Northbound, Ramona Expressway to Nuevo Road
5	I-215, Southbound, Eucalyptus Avenue to Alessandro Boulevard
6	I-215, Southbound, Ramona Expressway to Nuevo Road
7	SR-91, Westbound, Riverwalk Parkway to Magnolia Avenue

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Air Quality

Project-Specific Significant Impacts

Operational-Source Pollutant Emissions Exceedances

Even after compliance with South Coast Air Quality Management District (SCAQMD) rules and regulations, and the application of EIR mitigation measures, operational pollutant emissions would exceed applicable SCAQMD regional emission thresholds for NO_x. These impacts are therefore individually significant.

Cumulatively Significant Impacts

Operational-Source Pollutant Emissions Exceedances

Project-specific operational-source NO_x emissions exceedances are cumulatively significant over the life of the Project.

Non-Attainment Area Impacts

Project operational source NO_x emissions exceedances (NO_x is an ozone precursor; NO_x is also a $PM_{10}/PM_{2.5}$ precursor), in combination with NO_x emissions generated by other sources affecting the SCAB ozone and $PM_{10}/PM_{2.5}$ non-attainment areas, would result in a cumulatively considerable net increase in ozone and $PM_{10}/PM_{2.5}$ within the non-attainment areas. These are cumulatively significant impacts.

Greenhouse Gas/Global Climate Change

Project-Specific Impacts

Project GHG emissions would individually exceed the 10,000 MTCO2e/year GHG emissions threshold employed by the City. Project GHG emissions would also not conform to State GHG emissions reductions targets established under AB32.

Cumulatively Significant Impacts

Project-specific GHG emissions exceedances would be cumulatively considerable in the context of existing GHG emissions levels and GHG emissions that would be generated by other known or probable GHG emissions sources.

The Moreno Valley Planning Commission finds, based on the facts set forth in the record, which include but are not limited to the facts as set forth below, those facts contained in the Final EIR, and

any other facts set forth in materials prepared by the City and/or City consultants, that there are no further additional mitigation measures which can mitigate the traffic, air quality, and greenhouse gas/global climate change impacts that are discussed below and which cannot be mitigated to less than significant levels. Therefore, as outlined in Public Resources Code section 21081(b) and CEQA Guidelines section 15093, the project will require a Statement of Overriding Considerations for adverse traffic, air quality, and greenhouse gas/global climate change impacts (see Appendix A).

3.1 - TRANSPORTATION AND TRAFFIC

Impact	**Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system,including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.**

3.1.1 -Cumulative

3.1.1.1 - Potentially Significant and Unavoidable Impact

The Final EIR identifies significant and unavoidable impacts at a number of intersections, roadway segments, and freeway facilities under Opening Year conditions.

Intersections

Pending completion of required improvements, the Project's incremental contributions to Opening Year Conditions cumulative traffic impacts at or affecting the following intersections are considered cumulatively significant and unavoidable:

Intersection ID No.	Intersection Location
1	I-215 SB Ramps/Harley Knox Blvd.
2	I-215 NB Ramps/Harley Knox Blvd.
3	Western Way / Harley Knox Blvd.
4	Patterson Ave. / Harley Knox Blvd.
7	Indian St. / Grove View Rd.
10	Indian St. / Harley Knox Blvd.

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Roadway Segments

Pending completion of required improvements, the Project's incremental contributions to Opening Year Conditions cumulative traffic impacts at or affecting the following roadway segments are considered cumulatively significant and unavoidable:

Roadway Segment ID No.	Roadway	Segment Limits
2	Harley Knox Blvd.	I-215 NB Ramps to Western Way
3	Harley Knox Blvd.	East of Western Way
4	Harley Knox Blvd.	West of Patterson Ave.
9	Indian St.	South of Nandina Ave.
10	Indian St.	North of Grove View Rd.
11	Indian St.	South of Grove View Rd.

Freeway Facilities

Pending completion of required improvements, the Project's incremental contributions to Opening Year Cumulative traffic impacts at or affecting the following freeway facilities are considered cumulatively significant and unavoidable:

	Freeway Segment
1	I-215, Northbound, University Avenue to Martin Luther King Boulevard
2	I-215, Northbound, Box Springs Road to SR-60/I-215 Freeway
3	I-215, Northbound, Eucalyptus Avenue to Alessandro Boulevard
4	I-215, Northbound, Ramona Expressway to Nuevo Road
5	I-215, Southbound, Eucalyptus Avenue to Alessandro Boulevard
6	I-215, Southbound, Ramona Expressway to Nuevo Road

7 SR-91, Westbound, Riverwalk Parkway to Magnolia Avenue

Finding

Pursuant to CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the environmental effect as identified in the Final EIR.

Pursuant to CEQA Guidelines Section 15091(a)(2), changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding and such changes have been adopted by such other agency or can and should be adopted by such other agency as identified in the Final EIR.

Pursuant to CEQA Guidelines Section 15091(a)(3), specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible mitigation measures identified in the Final EIR.

Although changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect identified in the Final EIR, there are no feasible mitigation measures which can mitigate these impacts to a level of insignificance. Pursuant to CEQA Guidelines Section 15093, therefore, the City has balanced the benefits of the project against its unavoidable environmental risks and has determined that this impact is acceptable for the reason stated in the Statement of Overriding Considerations in Appendix A.

Facts in Support of Finding

Opening Year (2020) Without-Project and With-Project Traffic Analysis

The Year 2020-without-Project Condition reflects existing (2015) traffic volumes, plus additional background traffic that would be generated by generalized ambient growth within the region, as well as traffic generated by known or probable related projects. The Opening Year (2020) with Project Condition reflects addition of Project traffic to the Year 2020-without-Project Condition.

Intersection LOS Analysis–Opening Year (2020) Conditions

Intersections with identified deficiencies under either Opening Year (2020)-without-Project Conditions or Opening Year (2020)-with-Project Conditions are presented at Table 4.1-8 of the Draft EIR. These are considered potentially significant cumulative impacts resulting from existing traffic, ambient traffic growth within the region, traffic generated by related projects, and Project traffic. Recommended improvements for each potentially affected intersection are listed subsequently at Table 4.1-9.

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Level of Significance: Potentially Cumulatively Significant. Under Opening Year-with-Project Conditions, traffic generated by the Project in combination with traffic from regional growth and related projects would result in potentially significant cumulative impacts at the Study Area intersections listed at Table 4.1-8 of the Draft EIR.

Mitigation Measures:

4.1.1 Prior to the issuance of building permits, the Project Applicant shall pay requisite fees toward the construction of Year 2020 improvements as indicated at following Table 4.1-9 and summarized at Table 4.1-12 and illustrated at Figure 4.1-9 at the conclusion of this Section.

Level of Significance after Mitigation: *Cumulatively Significant and Unavoidable.* The Project Applicant would pay all requisite fees, acting to offset the Project's proportional contributions to cumulative traffic impacts projected to occur under Opening Year-with-Project Conditions. Notwithstanding, payment of fees pursuant to Mitigation Measure 4.1.1 would not ensure timely completion of required improvements. Thus, while the physical improvements identified may be capable of mitigating potentially significant impacts, these improvements cannot be assured. Moreover, there are not any plans to improve the affected intersection(s) within the Project's estimated opening date, and the City of Moreno Valley does not have an existing agreement with extra-jurisdictional agencies regarding the improvement or timing of improvements at locations along, or beyond the City of Moreno Valley corporate boundaries.

Based on the preceding, pending completion of the required improvements, Project contributions to cumulative impacts under Opening Year-with-Project Conditions are recognized as cumulatively significant and unavoidable at all Study Area intersections listed at Table 4.1-8 of the Draft EIR.

Roadway Segment LOS Analysis—Year 2020 Conditions

Peak hour assessment of intersections located on either side of potentially deficient Study Area roadway segments was conducted to determine if peak hour traffic flows can be accommodated by the roadway segment in question. If it is determined that intersection peak hour traffic flows can be accommodated at the City's stated intersection LOS thresholds, then widening of connecting roadway segments is not recommended.

As indicated at Table 4.1-10 of the Draft EIR, modeled traffic flows for certain Study Area roadway segments indicate potentially significant cumulative LOS deficiencies under Opening Year-with-Project Conditions. Functionally nonetheless, these roadway segments are projected operate acceptably given that the (improved) controlling intersections along the affected roadways would operate acceptably.

Level of Significance: Potentially Cumulatively Significant.

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Mitigation Measure: Required improvements necessary to achieve acceptable Study Area roadway segment LOS are coincident with through lane improvements required to achieve acceptable LOS at controlling intersections. Pursuant to previous Mitigation Measure 4.1.1, the Project would pay requisite fees toward implementation of required improvements at all Study Area intersections affected by potentially significant cumulative impacts under Opening Year with Project conditions. Payment of fees in this manner fulfills the Project's mitigation responsibilities.

Level of Significance after Mitigation: ***Cumulatively Significant and Unavoidable.*** The peak hour intersection analysis presented in the TIA substantiates that the controlling Study Area intersections along potentially deficient roadway segments are anticipated to operate at acceptable LOS with the incorporation of required intersection and lane improvements. As such, roadway lane improvements beyond those identified in Table 4.1-9 of the Draft EIR do not appear necessary and are not recommended.

Pursuant to Mitigation Measure 4.1.1, the Project would pay requisite fees addressing Study Area intersection LOS deficiencies projected to occur under Opening Year-with-Project Conditions, and in so doing would also address potential roadway segment deficiencies. No additional mitigation is required or recommended.

Payment of fees pursuant to Mitigation Measure 4.1.1 would not however, ensure timely completion of required improvements. Thus, while the physical improvements identified may be capable of mitigating potentially significant impacts, these improvements cannot be assured. Moreover, there are not any plans to improve the affected intersection(s) within the Project's estimated opening date, and the City of Moreno Valley does not have an existing agreement with extra-jurisdictional agencies regarding the improvement or timing of improvements at locations along, or beyond the City of Moreno Valley corporate boundaries.

Based on the preceding, pending completion of the required improvements, Project contributions to cumulative impacts under Opening Year-with-Project Conditions are recognized as cumulatively significant and unavoidable at all Study Area roadway segments listed at previous Table 4.1-10 of the Draft EIR.

Freeway Off-Ramp Queuing Analysis

Under Year 2020-with-Project Conditions, all Study Area freeway ramps queues would conform to Caltrans 95th percentile performance standards with the exception of the I-215 SB Ramps/Harley Knox Boulevard(AM peak hour only). Addition of Project traffic under Opening Year Conditions at this location would result in potentially adverse queuing deficiencies, and Project contributions to freeway ramp queuing impacts would be considered cumulatively significant.

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Level of Significance: Potentially Cumulatively Significant at I-215 SB Ramps/Harley Knox Boulevard (AM peak hour only).

Mitigation Measures: Required improvements necessary to achieve acceptable queues at I-215 SB Ramps/Harley Knox Boulevard are coincident with improvements required to achieve acceptable intersection LOS at I-215 SB Ramps/Harley Knox Boulevard (Study Area Intersection No.1). Pursuant to Mitigation Measure 4.1.1, the Project would pay requisite fees toward implementation of required improvements at all intersections affected by potentially significant cumulative impacts under Opening Year with Project conditions. Payment of fees in this manner fulfills the Project's mitigation responsibilities.

Level of Significance after Mitigation: ***Cumulatively Significant and Unavoidable.*** The Project Applicant would pay all requisite fees, acting to offset the Project's proportional contributions to cumulative traffic impacts projected to occur under Opening Year-with-Project Conditions. Notwithstanding, payment of fees pursuant to Mitigation Measure 4.1.1 would not ensure timely completion of required improvements. Thus, while the physical improvements identified may be capable of mitigating potentially significant impacts, these improvements cannot be assured. Moreover, there are not any plans to improve the affected intersection(s) within the Project's estimated opening date, and the City of Moreno Valley does not have an existing agreement with extra-jurisdictional agencies regarding the improvement or timing of improvements at locations along, or beyond the City of Moreno Valley corporate boundaries.

Based on the preceding, pending completion of the required improvements, Project contributions to cumulative ramp queuing impacts under Opening Year-with-Project Conditions are recognized as cumulatively significant and unavoidable at I-215 SB Ramps / Harley Knox Boulevard (AM peak hour only).

In sum, notwithstanding the implementation of feasible mitigation measures, the above-described Project-related impacts are cumulatively significant and unavoidable.

References: 4.1-37 through 4.1-45 of the Draft EIR, and any documents referenced or incorporated therein.

Impact	**Conflict with an applicable congestion management program, including, but not limited to a level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.**

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3.1.2 -Cumulative

3.1.2.1 - Potentially Significant and Unavoildable Impact

The final EIR identifies a significant and unavoidable impact with respect to the current Riverside County Congestion Management Plan (CMP).

The Project would pay all requisite fees for improvements at Study Area CMP facilities. However, as discussed herein, fee payments would not ensure timely completion of improvements required for mitigation of cumulatively significant impacts within the Study Area. Pending completion of required improvements, Project contributions to impacts affecting Study Area CMP facilities are therefore considered cumulatively significant and unavoidable.

Finding

Pursuant to CEQA Guidelines Section 15091 (a)(1), changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the environmental effect as identified in the Final EIR.

Pursuant to CEQA Guidelines Section 15091(a)(3), specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible mitigation measures identified in the Final EIR.

Although changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect identified in the Final EIR, there are no feasible mitigation measures which can mitigate these impacts to a level of insignificance. Pursuant to CEQA Guidelines Section 15093, therefore, the City has balanced the benefits of the project against its unavoidable environmental risks and has determined that this impact is acceptable for the reason stated in the Statement of Overriding Considerations in Appendix A.

Facts in Support of Finding

CMP Intersections

Study Area CMP intersections; governing jurisdictional agencies; and LOS Standards are summarized at Table 4.1-13 of the Draft EIR.

Under Existing (2015) without and with Project Conditions, all CMP intersections would operate at acceptable LOS.

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CMP deficiencies projected to occur under Opening Year (2020) without and with Project Conditions are summarized at Table 4.1-14 of the Draft EIR.

CMP intersection deficiencies noted at Table 4.1-14 are coincident with impacts affecting Study Area intersections as presented previously in this analysis. Project contributions to impacts at the CMP intersections listed at Table 4.1-14 would be cumulatively considerable under Opening Year-with-Project Conditions. These are potentially significant cumulative impacts.

Level of Significance: Potentially Cumulatively Significant (Study Area Intersection No.'s 1 and 2).

Mitigation Measures: Mitigation for CMP intersection deficiencies is coincident with other Study Area intersection mitigation identified herein. Please refer to Mitigation Measure 4.1.1.

Level of Significance after Mitigation: Cumulatively Significant and Unavoidable.

The Project would pay all requisite fees for improvements at Study Area CMP facilities. However, as discussed herein, fee payments would not ensure timely completion of improvements required for mitigation of cumulatively significant impacts within the Study Area. Pending completion of required improvements, Project contributions to impacts affecting Study Area CMP facilities are therefore considered cumulatively significant and unavoidable.

References: Pages 4.1-45 through 4.1-49 of the Draft EIR, and any documents referenced or incorporated therein.

3.2 - AIR QUALITY

Impact	**Violate any air quality standard or contribute substantially to an existing or projected air quality violation.**

3.2.1 - Potentially Significant and Unavoidable Impact

The final EIR identifies a significant and unavoidable impacts with respect to operational-source emissions.

Project-Specific Significant Impacts

Operational-Source Pollutant Emissions Exceedances

Even after compliance with South Coast Air Quality Management District (SCAQMD) rules and regulations, and the application of EIR mitigation measures, operational pollutant emissions would exceed applicable SCAQMD regional emission thresholds for NO_x. These impacts are therefore individually significant.

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Cumulatively Significant Impacts

Operational-Source Pollutant Emissions Exceedances

Project-specific operational-source NO_x emissions exceedances are cumulatively significant over the life of the Project.

These are significant and unavoidable air quality impacts.

Finding

Pursuant to CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the environmental effect as identified in the Final EIR.

Pursuant to CEQA Guidelines Section 15091 (a)(3), specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible mitigation measures identified in the Final EIR.

Although changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect identified in the Final EIR, there are no feasible mitigation measures which can mitigate these impacts to a level of insignificance. Pursuant to CEQA Guidelines Section 15093, therefore, the City has balanced the benefits of the project against its unavoidable environmental risks and has determined that this impact is acceptable for the reason stated in the Statement of Overriding Considerations in Appendix A

Facts in Support of Finding

Operational-Source Air Pollutant Emissions

Project operational activities would generate emissions of VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Operational air pollutant emissions would be generated by the following primary sources:

- Mobile Sources
  - Tailpipe emissions; and
  - Fugitive dust related to vehicular travel.
- Stationary/Area Sources
  - Combustion emissions associated with natural gas and electricity use;

- Landscape maintenance equipment;
- On-Site Equipment Operations;
- Emissions from consumer products; and
- Architectural coatings.

Each of these operational emissions sources are described in the following paragraphs and the estimated emissions from each source are summarized subsequently. Within the following discussions, full Project buildout and occupancy under Opening Year Conditions are assumed.

Mobile Sources (vehicles)

Vehicle Exhaust/Tailpipe Emissions

Project-related operational air quality impacts derive predominantly from mobile sources. In this regard, approximately 98 percent (by weight) of all Project operational-source emissions would be generated by mobile sources (vehicles). Vehicle exhaust impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. Vehicle trip characteristics available from the Project Traffic Impact Analysis (Project TIA, EIR Appendix B) were employed in the Project AQIA. For the Project mobile-source emissions, air quality impacts have been evaluated employing assumptions and protocols reflected in the South Coast Air Quality Management District *Draft Warehouse Truck Trip Study* (SCAQMD) December 2014 (Draft Warehouse Truck Trip Study); and reflecting likely maximum trip lengths as follows:

- For passenger car trips, the CalEEMod default for a one-way trip length of 16.6 miles was assumed.
- For heavy duty trucks, average trip length were employed reflecting distances from the Project site to the far edges of the South Coast Air Basin (SCAB.)
  - Project site to the Port of Los Angeles/Long Beach: 80 miles;
  - Project site to East on State Route 60: 30 miles;
  - Project site to San Diego County line: 60 miles;
  - Project site to Inland Empire: 50 miles;
  - Project site to Perris destinations: 10 miles;

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- Project site to Moreno Valley destinations: 10 miles.

Assuming that 50% of all delivery trips will travel to and from the Project and the Port of Los Angeles/Long Beach, 10% go East on the State Route 60, 20% go to San Diego, 10% go to the Inland Empire, 5% go to Perris destinations and the remainder as Moreno Valley destinations. The average truck trip length is calculated as 61 miles.

Mobile-source vehicle tail pipe emissions cannot be materially controlled or mitigated by the Lead Agency or the Project Applicant. Rather, these emissions sources are regulated by CARB and USEPA. As summarized at Section 4.2.5 of the Draft EIR, Regional Air Quality Trends, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve. Future CARB and USEPA actions could be expected to have a positive effect on Project-related vehicular-source emissions, resulting in incremental reductions in vehicular-source emissions when compared to either the Project AQIA emissions estimates.

Fugitive Dust Related to Vehicular Travel

Project traffic would be a source of fugitive emissions due to the generation of road dust including particulate matter resulting from tire wear.

Stationary/Area Sources

Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every development project. Criteria pollutants are emitted through the generation of electricity and the consumption of natural gas. Because electrical generating facilities for the Project area are located either outside the region, are separately evaluated under their own environmental analyses, and/or are offset through the use of pollution credit, criteria pollutant emissions from offsite generation of electricity have been excluded from the analysis presented here.

Landscape Maintenance Emissions

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project.

On-Site Equipment Operations

Industrial warehouse uses such as those that would be implemented under the Project typically require use of cargo handling equipment for on-site movement of containers and chassis. The most common

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type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks typically have a horsepower (hp) range of approximately 175 hp to 200 hp. SCAQMD information indicates that high-cube warehouse projects typically employ 3.6 yard trucks per million square feet of building space. For the Project, on-site modeled operational equipment assumes two (2) yard tractors operating at 4 hours/day, 365 days/year. Other assumed on-site operational equipment supporting the Project industrial land uses would include a total of two 89-hp yard forklifts, operating 4 hours/day, 365 days/year. All on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) would be powered by non-diesel fueled engines and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

Consumer Products

Consumer products include, but are not limited to, detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which, when released in the atmosphere, can react to form ozone and other photochemically reactive pollutants.

Architectural Coatings

Over time, maintenance of Project facilities would require exterior application of architectural coatings. Such facility maintenance would generate air pollutant emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings.

Operational Emissions Summary

Maximum daily Project operational-source air pollutant emissions are summarized at Table 4.2-9 of the Draft EIR. Applicable SCAQMD regional significance thresholds are also indicated.

Level of Significance: Potentially Significant. Project operational-source NOx emissions would exceed applicable SCAQMD regional thresholds. As shown at Table 4.2-14, Project operational-source NOx emissions would exceed applicable SCAQMD regional thresholds. Mitigation measures that would act to reduce Project operational-source emissions are presented below.

Project Design Features and Operational Programs

Operational-source emissions are reduced in part through the Project's conservation/sustainability design features and operational programs described at Draft EIR Section 3.4.10, *Energy Efficiency/Sustainability*, and restated below:

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Energy-saving and sustainable design features and operational programs would be incorporated into all facilities developed pursuant to the Project. Notably, the Project in total would provide sustainable design features necessary to achieve a "Certified" rating under the United States Green Building Council's Leadership in Energy & Environmental Design (LEED) programs. The Project also incorporates and expresses the following design features and attributes promoting energy efficiency and sustainability.

- The Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provider that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City.

- All on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines.

- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:

    - Sidewalks along the Project site's Indian Street frontage would be constructed as part of the Project, and would connect to existing and planned sidewalks to the north and south of the Project site. Facilitating pedestrian access encourages people to walk instead of drive. The Project would not impose barriers to pedestrian access and interconnectivity.

    - Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery vendor truck trips.

- To reduce water demands and associated energy use, development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy). Development proposals within the Project site would also be required to implement the following:

    - Landscaping palette emphasizing drought tolerant plants consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

    - Use of water-efficient irrigation techniques consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

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- U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and other plumbing fixtures.

Additionally, the Project in total would surpass, by a minimum of 5%, incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards).

Mitigation Measure: Requirements listed below at Mitigation Measure 4.2.5 would provide for generalized reductions in Project area-source air pollutant emissions. Notwithstanding, these reductions cannot be definitively quantified; and in any case, such reductions as may be realized would not materially affect the analyses or conclusions presented herein. Accordingly, for the purposes of this analysis, unmitigated and mitigated area-source air pollutant emissions generated by the Project are considered substantively equal.

4.2.5 The following requirements shall be incorporated into Project plans and specifications:

- *Any gasoline-powered cargo-handling equipment shall be equipped with catalytic converters.*
- *Install signs stating that the idling of trucks shall not exceed three minutes.*
- *Provide preferential parking locations for EVs, CNG vehicles, and carpool/vanpool vehicles.*

Level of Significance After Mitigation: ***Significant (NOx regional threshold exceedances)***.
Mitigated Project operational-source emissions are summarized at Table 4.2-10 of the Draft EIR. Any reductions as may be realized through the above mitigation measures would not materially affect the analyses or conclusions presented herein.

Moreover, and as noted previously in this Section, approximately 98 percent of all operational-source emissions (by weight) would be generated by Project mobile sources (traffic). Neither the Project Applicant nor the Lead Agency can substantively or materially affect reductions in Project mobile-source emissions.

Accordingly, and as indicated at Table 4.2-10 of the Draft EIR, even after implementation of the recommended mitigation measure, Project operational-source NOx emissions exceedances would persist. Individually and cumulatively, these are significant and unavoidable air quality impacts.

References: Pages 4.2-36 through 4.2-44 of the Draft EIR, and any documents referenced or incorporated therein.

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Impact	**Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard, including releasing emissions which exceed quantitative thresholds for ozone precursors.**

3.2.2 - Potentially Significant and Unavoildable Impact

The final EIR identifies a significant and unavoidable impact with respect to operational source NOx emissions.

Mitigation Measure 4.2.5 would reduce Project-source air pollutant emissions, including NO_x emissions, to the extent feasible. The Project would also comply with all applicable SCAQMD Rules and would be required to comply with development standards and energy efficiency performance standards established by the City of Moreno Valley. No further feasible measures are available that would substantively mitigate the Project's operational-source NO_x emissions.

Finding

Pursuant to CEQA Guidelines Section 15091 (a)(1), changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the environmental effect as identified in the Final EIR.

Pursuant to CEQA Guidelines Section 15091(a)(3), specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible mitigation measures identified in the Final EIR.

Although changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect identified in the Final EIR, there are no feasible mitigation measures which can mitigate these impacts to a level of insignificance. Pursuant to CEQA Guidelines Section 15093, therefore, the City has balanced the benefits of the project against its unavoidable environmental risks and has determined that this impact is acceptable for the reason stated in the Statement of Overriding Considerations in Appendix A.

Facts in Support of Finding

The Project area is designated as an extreme non-attainment area for ozone; a serious non-attainment area for PM_{10}; and a non-attainment area for $PM_{2.5}$. Germane to these regional non-attainment conditions, the Project-specific evaluation of emissions presented in this Section indicates that even after application of mitigation, Project operational-source NO_x emissions would exceed applicable SCAQMD regional significance thresholds. The fact that the Project operational-source NOx emissions would exceed applicable SCAQMD thresholds indicates that the Project impacts in these

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regards are significant on an individual basis, and under SCAQMD significance criteria, would therefore also be cumulatively considerable.

NO_x is an ozone precursor. Project operational-source emissions of NO_x would therefore contribute to a cumulatively considerable net increase in the ozone precursor NO_x within the encompassing ozone non-attainment area. Additionally, NO_x is a precursor to $PM_{10}/PM_{2.5}$, and Project operational-source emissions of NO_x would therefore contribute to a cumulatively considerable net increase in $PM_{10}/PM_{2.5}$ levels within the encompassing $PM_{10}/PM_{2.5}$ nonattainment area. These are potentially significant cumulative air quality impacts.

Please refer also to the discussion of cumulative air quality impacts presented at EIR Section 5.0, *Other CEQA Considerations*.

Mitigation Measure 4.2.5 would reduce Project-source air pollutant emissions, including NO_x emissions, to the extent feasible. The Project would also comply with all applicable SCAQMD Rules and would be required to comply with development standards and energy efficiency performance standards established by the City of Moreno Valley.

Approximately 96 percent of the Project NO_x emissions (by weight) would be generated by vehicles accessing the Project site. Mobile-source vehicle tail pipe emissions cannot be materially controlled or mitigated by the Lead Agency or the Project Applicant. Rather, these emissions sources are regulated by CARB and USEPA. As summarized herein at Section 4.2.5, Regional Air Quality Trends, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve. Future CARB and USEPA actions could be expected to have a positive effect on Project-related vehicular-source emissions, resulting in incremental reductions in vehicular-source emissions when compared to either the Project AQIA emissions estimates. No further feasible measures are available that would substantively mitigate the Project's operational-source NO_x emissions.

References: Pages 4.2-66 through 4.2-68 of the Draft EIR, and any documents referenced or incorporated therein.

3.3 - GLOBAL CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS

Impact	**Generate greenhouse gas emissions, either directly or indirectly, that may have a Significant impact on the environment.**

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3.3.1 - Potentially Significant and Unavoidable Impact

The final EIR identifies a significant and unavoidable impact with respect to the Project's generation of greenhouse gas emissions.

Project GHG emissions would individually exceed the 10,000 MTCO2e/year GHG emissions threshold employed by the City. Project GHG emissions would also not conform to State GHG emissions reductions targets established under AB32.

Project-specific GHG emissions exceedances would be cumulatively considerable in the context of existing GHG emissions levels and GHG emissions that would be generated by other known or probable GHG emissions sources.

Finding

Pursuant to CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the environmental effect as identified in the Final EIR.

Pursuant to CEQA Guidelines Section 15091 (a)(3), specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible mitigation measures identified in the Final EIR.

Although changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect identified in the Final EIR, there are no feasible mitigation measures which can mitigate these impacts to a level of insignificance. Pursuant to CEQA Guidelines Section 15093, therefore, the City has balanced the benefits of the project against its unavoidable environmental risks and has determined that this impact is acceptable for the reason stated in the Statement of Overriding Considerations in Appendix A.

Facts in Support of Finding

California Emissions Estimator Model (CalEEMod) Employed to Estimate GHG Emissions

CEQA Guidelines 15064.4 (b) (1) states that a Lead Agency may employ a model or methodology of its choice to quantify greenhouse gas emissions associated with a project. The SCAQMD-approved California Emissions Estimator Model (CalEEMod, Model) is accepted by the Lead Agency for modeling of greenhouse gas (GHG) emissions, and was employed in the analysis of Project GHG emissions impacts. CalEEMod calculates air pollutant/GHG emissions from direct and indirect sources, and quantifies pollutant/GHG emissions reductions achieved from mitigation measures. The Model includes and evaluates GHG emissions from the following source categories: construction,

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area, energy, mobile, waste, water. Considerations applicable to each of these categories are addressed briefly in the following discussions.

Construction-Source GHG Emissions

Project construction activities would generate the GHG emissions of CO_2 and CH_4. Construction-source GHG emissions are quantified and amortized over the life of the Project. To this end, and consistent with SCAQMD-recommended methodology, greenhouse gas emissions generated by Project construction activities were totaled and then divided by 30, reflecting an assumed 30-year Project life.

Operational-Source GHG Emissions

As described below, Project operational GHG emissions sources would include: area sources, on-site equipment operations; building energy use; water supply, treatment and distribution (water use); solid waste management; and mobile-sources (vehicular) energy consumption.

Area Sources

Area Sources (generalized activities associated with landscape and building maintenance) would generate GHG emissions over the life of the Project.

On-site Equipment Operations

Industrial warehouse uses such as those that would be implemented under the Project typically require use of cargo handling equipment for on-site movement of containers and chassis. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks typically have a horsepower (hp) range of approximately 175 hp to 200 hp. SCAQMD information indicates that high-cube warehouse projects typically employ 3.6 yard trucks per million square feet of building space. For the Project, on-site modeled operational equipment assumes two (2) yard tractors operating at 4 hours/day, 365 days/year. Other assumed on-site operational equipment supporting the Project industrial land uses would include two 89-hp yard forklifts, operating 4 hours/day, 365 days/year. All on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) would be powered by non-diesel fueled engines and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

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Building Energy Use

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod default parameters were employed in estimating GHG emissions generated by building energy use.

Water Supply, Treatment and Distribution (Water Use)

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water is determined by the volume of water used, as well as the sources of the water. Unless otherwise noted, CalEEMod default parameters were employed in estimating GHG emissions generated by water supply, treatment and distribution activities and processes.

Solid Waste Management

Commercial land uses will result in the generation and disposal of solid waste. A large percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. Unless otherwise noted, CalEEMod default parameters were employed in estimating GHG emissions generated by solid waste management activities and processes.

Mobile-Source Emissions

GHG emissions would also be generated by Project-related mobile sources. These mobile-source emissions would result from daily operation of motor vehicles by patrons and employees accessing the Project site. Project mobile-source emissions are dependent on overall daily vehicle trip generation. Trip characteristics available from the Project Traffic Impact Analysis (EIR Appendix B) were utilized in this analysis. Please refer also to the discussion presented at Project GHG Analysis Section 3.6.3, *Mobile Source Emissions*.

Project GHG Emissions Summary

Project GHG Emissions are Potentially Significant in Context of the Lead Agency Threshold

Project GHG emissions would total an estimated 12,154.98 MTCO2e/year as summarized at Table 4.3-4 of the Draft EIR. Project GHG emissions would therefore exceed the 10,000 MTCO2e/year

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GHG emissions threshold employed by the City of Moreno Valley. The 10,000 MTCO2e/year GHG emissions threshold employed by the City of Moreno Valley is intended to reduce GHG emissions so as to minimize or preclude significant environmental impacts. Project exceedance of the City's GHG emissions threshold would therefore *result in levels of greenhouse gas emissions that may either directly or indirectly have a significant impact on the environment. This is a potentially significant cumulative impact.*

Mitigation Measures: EIR Section 3.0, *Project Description*, 3.4.10, *Energy Efficiency/Sustainability* (excerpted below) summarizes features and attributes that would act to reduce Project GHG emissions.

3.4.10 Energy Efficiency/Sustainability

Energy-saving and sustainable design features and operational programs would be incorporated into all facilities developed pursuant to the Project. Notably, the Project in total would provide sustainable design features necessary to achieve a "Certified" rating under the United States Green Building Council's Leadership in Energy & Environmental Design (LEED) programs. The Project also incorporates and expresses the following design features and attributes promoting energy efficiency and sustainability.

- The Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provider that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City.

- All on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines.

- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:

    - Sidewalks along the Project site's Indian Street frontage would be constructed as part of the Project, and would connect to existing and planned sidewalks to the north and south of the Project site. Facilitating pedestrian access encourages people to walk instead of drive. The Project would not impose barriers to pedestrian access and interconnectivity.

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- Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery vendor truck trips.

- To reduce water demands and associated energy use, development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy). Development proposals within the Project site would also be required to implement the following:

  - Landscaping palette emphasizing drought tolerant plants consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

  - Use of water-efficient irrigation techniques consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

  - U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and other plumbing fixtures.

  Additionally, the Project in total would surpass, by a minimum of 5%, incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards).

The above design features and operational programs would act to generally reduce Project GHG emissions from area sources, energy sources, and other on-site emissions sources which combined, account for approximately 11 percent of the Project total GHG emissions.

The remaining approximately 89 percent of Project GHG emissions are attributable to mobile sources. Neither the Project Applicant nor the Lead Agency can substantively or materially affect reductions in Project mobile-source GHG emissions. Mobile source emissions sources are regulated by CARB and USEPA. As summarized at Draft EIR Section 4.2, *Air Quality*, 4.2.5, *Regional Air Quality Trends*, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions (including attendant GHG Emissions) have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve. Future CARB and USEPA actions could be expected to have a positive effect on Project-related vehicular-source emissions, resulting in incremental reductions in coincident vehicular-source GHG emissions when compared to GHG emissions estimates presented here. No further feasible measures are available that would substantively mitigate the Project's operational-source GHG emissions.

Level of Significance After Mitigation: ***Significant and Unavoidable.***

GHG Emissions are Potentially Significant in Context of CARB AB32 Scoping Plan Emissions Reductions Targets

To further evaluate the potential significance of Project GHG emissions, GHG emissions that would be generated pursuant to development of the Project are compared with GHG emissions targets established under the CARB AB32 Scoping Plan (Scoping Plan). The Scoping Plan provides for a 28.5% reduction in statewide and local GHG emissions by the year 2020, when compared to projected GHG emissions that would result from a continuing year 2005 "Business As Usual" (BAU) Scenario.

As indicated at Table 4.3-5 of the Draft EIR, Project GHG emissions would be reduced by approximately 23.08% when compared to the 2005 BAU scenario; and would not achieve the 28.5% GHG emissions reduction targets established under the Scoping Plan. The GHG emissions reductions targets established under the Scoping Plan are intended to reduce GHG emissions so as to minimize or preclude significant environmental impacts. Project inconsistency with the Scoping Plan GHG emissions reduction targets would therefore result in levels of greenhouse gas emissions that may either directly or indirectly have a significant impact on the environment. This is a potentially significant cumulative impact.

Mitigation Measures: Please refer to previous discussion of GHG emissions reduction attributes and programs incorporated in the Project. No further feasible measures are available that would substantively mitigate the Project's operational-source GHG emissions.

Level of Significance After Mitigation: ***Significant and Unavoidable.***

References: Pages 4.3-29 through 4.3-37 of the Draft EIR, and any documents referenced or incorporated therein.

Impact	**Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.**

3.3.2 - Potentially Significant and Unavoidable Impact

The final EIR identifies a significant and unavoidable impact in that the Project would conflict within an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

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As indicated above, the Project would conflict with attainment of GHG emissions reductions identified in the Scoping Plan. Further GHG emissions generated by the Project would exceed GHG emissions significance thresholds established by the City of Moreno Valley.

Finding

Pursuant to CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the environmental effect as identified in the Final EIR.

Pursuant to CEQA Guidelines Section 15091 (a)(3), specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible mitigation measures identified in the Final EIR.

Although changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect identified in the Final EIR, there are no feasible mitigation measures which can mitigate these impacts to a level of insignificance. Pursuant to CEQA Guidelines Section 15093, therefore, the City has balanced the benefits of the project against its unavoidable environmental risks and has determined that this impact is acceptable for the reason stated in the Statement of Overriding Considerations in Appendix A.

Facts in Support of Finding

As substantiated in the preceding discussions, the Project would conflict with attainment of GHG emissions reductions identified in the Scoping Plan. The City of Moreno Valley Climate Action Strategy (CAS) GHG emissions reduction target is predicated on AB 32 Scoping Plan GHG emissions reductions target. The fact that the Project would not achieve the AB 32 GHG Scoping Plan emissions reductions target leads to the conclusion that the Project would likewise not achieve the CAS GHG emissions reductions target. Further GHG emissions generated by the Project would exceed GHG emissions significance thresholds established by the City of Moreno Valley.

Based on the preceding, the Project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. This is a potentially significant impact.

Mitigation Measures: Please refer to previous discussion of GHG emissions reduction attributes and programs incorporated in the Project. No further feasible measures are available that would substantively mitigate the Project's operational-source GHG emissions.

Level of Significance After Mitigation: ***Significant and Unavoidable.***

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References: Pages 4.3-29 through 4.3-38 of the Draft EIR, and any documents referenced or incorporated therein; Page 2-3 of the Final EIR, and any documents referenced or incorporated therein.

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SECTION 4:
FEASIBILITY OF PROJECT ALTERNATIVES

CEQA requires that an EIR include an analysis of a reasonable range of feasible alternatives to a proposed project capable of avoiding or substantially lessening any significant adverse environmental impact associated with the Project. The discussion of alternatives is required to include the "No Project" alternative. CEQA requires further that the City identify an environmentally superior alternative. If the "No Project" alternative is the environmentally superior alternative, an environmentally superior alternative must be identified from among the other alternatives. (CEQA Guidelines, 14 California Code of Regulations Section 15126.6.)

As set forth in these Findings, the Project, following adherence to all applicable regulatory requirements, inclusion of design features and with feasible mitigation measures incorporated, will nevertheless have significant adverse traffic, air quality, and greenhouse gas/global climate change impacts.

The City has reviewed a range of potential alternatives to the proposed Project. Five alternatives to the Project are presented in the Draft EIR. In addition to the CEQA-mandated consideration of a "No Project" Alternative, the Draft EIR presents and evaluates:

- Alternative Sites;
- "No Threshold Exceedance" Alternative for Significant Traffic Impacts;
- "No Threshold Exceedance" Alternative for Significant Air Quality Impacts; and
- Reduced Intensity Alternative.

An Environmentally Superior Alternative has been selected from among the alternatives evaluated in the Draft EIR. An alternative that is environmentally superior will result in the fewest or least significant environmental impacts and will achieve the project objectives of the planning effort. The primary goal of the Project is to develop high quality light industrial/business park uses accommodating a variety of prospective tenants. Complementary Project Objectives include the following:

- Implement the City's General Plan through development that is consistent with the General Plan Community Development Element and applicable General Plan Goals, Objectives, Policies and Programs;

- Implement the Moreno Valley Industrial Area Plan through development that is consistent with the Area Plan land uses and development concepts, and in total supports the Area Plan Vision;
- Provide adequate roadway and wet and dry utility infrastructure to serve the Project;
- Accommodate warehouse and manufacturing uses that are compatible with adjacent land uses;
- Provide an attractive, efficient and safe environment for warehouse uses that is cognizant of natural and man-made conditions;
- Accommodate a mix of warehouse and manufacturing uses responsive to current and anticipated market demands;
- Establish new development that would increase locally available employment opportunities and would further the City's near-term and long-range fiscal goals and objectives; and
- Establish new development that would increase locally available employment opportunities thereby improving jobs/housing balance within the City.

The analysis of the alternatives assumes that many of the applicable mitigation measures associated with the project will be implemented with the appropriate alternative. However, applicable mitigation measures may be scaled to reduce or avoid a potential impact of the alternative under consideration and may not precisely match those identified for the proposed Project.

The Reduced Intensity Alternative was determined to be the environmentally superior alternative. As indicated in Table 5.3-3 of the Draft EIR, the Reduced Intensity Alternative would result in the greatest reduction in environmental impacts when compared to the Project. This Alternative would avoid significant GHG emissions impacts otherwise occurring under the Project; and would reduce but not entirely eliminate or avoid the Project's significant traffic and air quality impacts. On this basis, and for the purposes of CEQA and the EIR Alternative Analysis, the Reduced Intensity Alternative would comprise the environmentally superior alternative. However, the Reduced Intensity Alternative would realize diminished attainment of certain of the basic Project Objectives.

While CEQA indicates that socioeconomic effects are not appropriate as a lone determinant in selection of an alternative, they are important considerations for decision-makers. With respect to socioeconomics, the Project and the Reduced Intensity Alternative would both have beneficial effects for the area. Either of these scenarios would contribute to area employment and the City's overall tax base. However, because the scope of land uses would be reduced under the Reduced Intensity Alternative, the resulting effective realization of the Project Objectives, to include economic benefits

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to the City and region, and full and comprehensive implementation of the City General Plan and the Moreno Valley Industrial Area Plan would be compromised.

Reduced development intensity would diminish attainment of the following Objectives:

- Implement the City's General Plan through development that is consistent with the General Plan Community Development Element and applicable General Plan Goals, Objectives, Policies and Programs. *The Reduced Intensity Alternative at approximately 80 percent of the Project scope would eliminate or substantively reduce the scope of certain Project uses, acting to diminish full utilization and highest and best use of the subject site as envisioned under the General Plan.*

- Implement the Moreno Valley Industrial Area Plan through development that is consistent with the Area Plan land uses and development concepts, and in total supports the Area Plan Vision. *The Reduced Intensity Alternative at approximately 80 percent of the Project scope would eliminate or substantively reduce the scope of certain Project uses, acting to diminish full utilization and highest and best use of the subject site as envisioned under the Moreno Valley Industrial Area Plan.*

- Establish new development that would increase locally available employment opportunities and would further the City's near-term and long-range fiscal goals and objectives. *The Reduced Intensity Alternative at approximately 80 percent of the Project scope would eliminate or substantively reduce the scope of certain Project uses, acting to diminish the scope and range of employment opportunities otherwise generated by the Project.*

Therefore, there is no alternative to the proposed project that is both environmentally superior to the proposed project and achieves the project objectives of the planning effort.

References: Pages 5-33 through 5-58 of the Draft EIR, and any documents referenced or incorporated therein.

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4.1 - NO PROJECT/NO DEVELOPMENT ALTERNATIVE

Overview

The *CEQA Guidelines* specifically require that the EIR include in its evaluation a No Project Alternative. The No Project Alternative should make a reasoned assessment as to future disposition of the subject site should the Project under consideration not be developed. In this latter regard, the *CEQA Guidelines* state in pertinent part:

> If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the "no project" alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in its existing state against environmental effects which would occur if the project is approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this "no project" consequence should be discussed. In certain instances, the no project alternative means "no build" wherein the existing environmental setting is maintained. However, where failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment (*CEQA Guidelines*, Section 15126.6 (e)(3)(b)).

No Project/No Build Alternative

In this instance, development of the subject site is substantively defined by Moreno Valley Industrial Area Plan (MVIAP). The No Project Alternative would be required to conform to land uses approved for, and overarching performance standards and development regulations established under, the MVIAP. It is therefore considered unlikely that the subject site would remain vacant or in a "No Build" condition. That is, failure to proceed with the Project would not result in preservation of existing environmental conditions, and the practical result of the Project's non-approval would be the development of the subject site with some other variety or configuration of approved Specific Plan land uses.

Any development of the subject site under a No Project Alternative would therefore likely be materially consistent with the Project, though internal land use configurations, development intensities, and specific uses may be realigned within the constraints and allowances of the MVIAP. Environmental impacts resulting from development of the subject site under a No Project Alternative would likely therefore be comparable to those occurring under the Project.

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If, however, development of the subject site was significantly delayed by economic, political, or other outside influences, existing environmental conditions would likely prevail, and in most instances, environmental impacts would be reduced when compared to the Project. To provide an analysis differentiated from that presented within the body of this EIR, the No Project Alternative considered herein is assumed to represent a "No Build" condition.

Under the No Build Alternative, no development would occur, and none of the Project Objectives would be achieved.

References: Pages 5-37 through 5-39 of the Draft EIR, and any documents referenced or incorporated therein.

4.2 - REDUCED INTENSITY ALTERNATIVE-INDIAN STREET COMMERCE CENTER LAND USES

As detailed at Draft EIR Section 4.3, *Global Climate Change and Greenhouse Gas Emissions,* Project GHG emissions would exceed the 10,000 MTCO2e/year GHG emissions threshold employed by the City of Moreno Valley. The Project's GHG emissions threshold exceedances constitute individually and cumulatively significant air quality impacts.

More specifically, even after application of all feasible mitigation measures, Project GHG emissions would result in exceedances of applicable City thresholds, as summarized below.

- Project Operational GHG emissions = 12,154.98 MTCO2e/year

  City of Moreno Valley threshold = 10,000 MTCO2e/year

  (City of Moreno Valley threshold = approximately 83 percent of Project Operational GHG emissions)

In order to achieve the 10,000 MTCO2e threshold established by the City, the Project GHG emissions would need be reduced from 12,154.98 MTCO2e/year to less than 10,000 MTCO2e/year; or by approximately 17 percent or greater.

Vehicular sources account for approximately 89 percent of the Project GHG emissions, the remaining 11 percent resulting from various on-site stationary/area sources. In order to achieve meaningful reductions in Project GHG emissions, correlating reductions in Project traffic generation would therefore be required.

Project GHG emissions could be reduced to levels that are less-than-significant through a reduction in the Project scope that would sufficiently reduce vehicular trips and associated vehicular-source GHG

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emissions. Such a reduction in operational-source emissions would also decrease the Project's contributions to cumulative GHG emissions impacts to levels that are less-than-significant.

However, the Reduced Intensity Alternative would realize diminished attainment of certain of the basic Project Objectives. While CEQA indicates that socioeconomic effects are not appropriate as a lone determinant in selection of an alternative, they are important considerations for decision-makers. With respect to socioeconomics, the Project and the Reduced Intensity Alternative would both have beneficial effects for the area. Either of these scenarios would contribute to area employment and the City's overall tax base. However, because the scope of land uses would be reduced under the Reduced Intensity Alternative, the resulting effective realization of the Project Objectives, to include economic benefits to the City and region, and full and comprehensive implementation of the City General Plan and the Moreno Valley Industrial Area Plan would be compromised.

References: Pages 5-39 through 5-40 of the Draft EIR, and any documents referenced or incorporated therein.

4.3 - ALTERNATIVE SITES

As stated in the *CEQA Guidelines* §15126.6 (f)(1)(2)(A), the "key question and first step in [the] analysis [of alternative locations] is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR." *Guidelines* §15126.6 (f) (1) also provides that when considering the feasibility of potential alternative sites, the factors that may be taken into account are "site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context) and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). None of these factors establishes a fixed limit on the scope of reasonable alternatives."

The Project considered herein is not subject to relocation to an alternative site. That is, the Project is in large part defined by its location and implements a location-specific portion of the land uses and development approved under MVIAP. At a different location, the development would be something other than the Project considered here. Moreover, relocation of the Project would compromise the fundamental Project Objectives and would not avoid or substantively reduce the Project's significant environmental impacts. Based on the preceding considerations, the analysis of an Alternative Site was not further considered.

References: Pages 5-41 through 5-42 of the Draft EIR, and any documents referenced or incorporated therein.

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4.4 - "NO THRESHOLD EXCEEDANCE" ALTERNATIVE FOR SIGNIFICANT TRAFFIC IMPACTS CONSIDERED AND REJECTED

Specific improvements identified in the Project TIA (EIR Appendix B) and summarized at Draft EIR Section 4.1 would provide a physical solution to identified potentially significant cumulative traffic impacts. Project mitigation responsibilities at affected Study Area facilities would be satisfied through fee payments directed to completion of the required improvements. Notwithstanding, Project fee payments would not ensure timely implementation of improvements required as mitigation for potentially significant cumulative traffic impacts, and impacts are therefore considered cumulatively significant and unavoidable pending completion of the required improvements.

Any measurable additional traffic contributed to the above-noted facilities would result in cumulatively significant traffic impacts similar to those occurring under the Project, requiring some manner of currently infeasible mitigation. In that any viable development of the subject site would generate trips likely affecting some or all of the above-referenced facilities, an alternative to the Project developed specifically to alleviate cumulatively significant traffic impacts at Study Area intersections and freeway facilities was not further evaluated. Notwithstanding, the Reduced Intensity Alternative considered herein would act to generally reduce traffic volumes within the Study Area and would likely diminish the magnitude of traffic impacts; but would not avoid cumulatively significant traffic impacts affecting Study Area faculties.

References: Page 5-43 of the Draft EIR, and any documents referenced or incorporated therein.

4.5 - "NO THRESHOLD EXCEEDANCE" ALTERNATIVE FOR PROJECT SIGNIFICANT AIR QUALITY IMPACTS CONSIDERED AND REJECTED

As presented at Draft EIR Section 4.2, *Air Quality*, Project maximum daily operational-source NO_x emissions would exceed SCAQMD regional thresholds for NO_x. The Project's operational-source NO_x emissions threshold exceedances constitute individually and cumulatively significant air quality impacts. Because NO_x is a precursor to ozone and to $PM_{10}/PM_{2.5}$, Project operational-source NO_x emissions exceedances would result in a cumulatively considerably net increase in ozone and $PM_{10}/PM_{2.5}$ within a region designated as non-attainment for ozone and $PM_{10}/PM_{2.5}$.

More specifically, even after application of all feasible mitigation measures, Project operational-source NO_x emissions would result in exceedances of applicable SCAQMD regional thresholds, as summarized below. Maximum impact summer/winter seasonal conditions are reflected in these discussions.

- Total Mitigated Project Operational NO_x emissions = 190.61 pounds per day

  SCAQMD threshold = 55 pounds per day

  (SCAQMD threshold = approximately 29 percent of Project Operational NO_x emissions)

Project operational-source NO_x emissions would need to be reduced from 190.61 pounds per day to less than 55 pounds per day, or by a minimum of 71 percent, in order to achieve the SCAQMD regional threshold for operational-source NO_x emissions.

Vehicular sources account for approximately 98 percent of the Project operational-source NO_x emissions, the remaining 2 percent resulting from various on-site stationary/area sources. In order to achieve meaningful reductions in Project operational-source NO_x emissions, correlating reductions in Project traffic generation would therefore be required.

The Project's operational-source air pollutant NO_x emissions could therefore be reduced to levels that are less-than-significant through a minimum 71 percent reduction in the Project scope; sufficient to reduce vehicular trips and associated vehicular-source NO_x emissions below SCAQMD thresholds. Such a reduction in operational-source emissions would also decrease the Project's contributions to cumulative NO_x air quality impacts to levels that are less-than-significant.

At a 71 percent reduction in scope, however, the resulting development would fundamentally not be the Project considered herein; and the Project Objectives would not be realized in any meaningful sense. As such, potential alternatives with the specific goal of avoiding all significant operational-source NO_x emissions impacts resulting from the Project were rejected from consideration, and were not further evaluated. Notwithstanding, in achieving the GHG emissions thresholds for the Project, the Reduced Intensity Alternative considered herein would also act to diminish Project operational source NO_x emissions. Operational-source NO_x emissions exceedances otherwise occurring under the Project would however remain significant and unavoidable.

References: Pages 5-44 through 5-45 of the Draft EIR, and any documents referenced or incorporated therein.

4.6 - ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that the City identify an Environmentally Superior Alternative. As indicated above, the Reduced Intensity Alternative was determined to be the Environmentally Superior Alternative.

As indicated in Table 5.3-3 of the Draft EIR, the Reduced Intensity Alternative would result in the greatest reduction in environmental impacts when compared to the Project. This Alternative would avoid significant GHG emissions impacts otherwise occurring under the Project; and would reduce

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but not entirely eliminate or avoid the Project's significant traffic and air quality impacts. However, the Reduced Intensity Alternative would realize diminished attainment of certain of the basic Project Objectives.

While CEQA indicates that socioeconomic effects are not appropriate as a lone determinant in selection of an alternative, they are important considerations for decision-makers. With respect to socioeconomics, the Project and the Reduced Intensity Alternative would both have beneficial effects for the area. Either of these scenarios would contribute to area employment and the City's overall tax base. However, because the scope of land uses would be reduced under the Reduced Intensity Alternative, the resulting effective realization of the Project Objectives, to include economic benefits to the City and region, and full and comprehensive implementation of the City General Plan and the Moreno Valley Industrial Area Plan would be compromised.

Reduced development intensity would diminish attainment of the following Objectives:

- Implement the City's General Plan through development that is consistent with the General Plan Community Development Element and applicable General Plan Goals, Objectives, Policies and Programs. *The Reduced Intensity Alternative at approximately 80 percent of the Project scope would eliminate or substantively reduce the scope of certain Project uses, acting to diminish full utilization and highest and best use of the subject site as envisioned under the General Plan.*

- Implement the Moreno Valley Industrial Area Plan through development that is consistent with the Area Plan land uses and development concepts, and in total supports the Area Plan Vision. *The Reduced Intensity Alternative at approximately 80 percent of the Project scope would eliminate or substantively reduce the scope of certain Project uses, acting to diminish full utilization and highest and best use of the subject site as envisioned under the Moreno Valley Industrial Area Plan.*

- Establish new development that would increase locally available employment opportunities and would further the City's near-term and long-range fiscal goals and objectives. *The Reduced Intensity Alternative at approximately 80 percent of the Project scope would eliminate or substantively reduce the scope of certain Project uses, acting to diminish the scope and range of employment opportunities otherwise generated by the Project.*

Therefore, based on the evaluation of the alternatives above, there is no alternative to the proposed project that is both environmentally superior to the proposed project and achieves the project objectives to the same extent as the proposed project.

References: Pages 5-33 through 5-58 of the Draft EIR, and any documents referenced or incorporated therein.

SECTION 5: COMMENTS RECEIVED ON DRAFT EIR

The City received 10 written comments on the Draft EIR. The City prepared detailed responses to all comments, which are incorporated into the Responses to Comments section of the Final EIR. All of the information included in the Responses to Comments merely clarifies, amplifies or makes insignificant modifications to an already adequate DEIR, and thus, does not constitute significant new information, as defined by CEQA Guidelines Section 15088.5, which would require recirculation of the EIR.

References: Pages 3-1 through 3-134 of the Final EIR.

SECTION 6: FINDINGS REGARDING GROWTH INDUCING IMPACTS

6.1 - OVERVIEW

The California Environmental Quality Act requires a discussion of the ways in which a project could be growth-inducing. (Pub. Resources Code, §21100, subd. (b)(5); *CEQA Guidelines*, § 15126, subd. (d), 15126.2, subd (d.).) The *CEQA Guidelines* identify a project as growth-inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of significance to the environment. New employees from commercial or industrial development and new population from residential development represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

A project could indirectly induce growth by reducing or removing barriers to growth, or by creating a condition that attracts additional population or new economic activity. However, a project's potential to induce growth does not automatically result in growth. Growth can only happen through capital investment in new economic opportunities by the private or public sectors. Development pressures are a result of economic investment in a particular locality. These pressures help to structure the local politics of growth and the local jurisdiction's posture on growth management and land use policy. The land use policies of local municipalities and counties regulate growth at the local level.

Impacts related to growth inducement would also be realized if a project provides infrastructure or service capacity which accommodates growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

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References: Pages 5-58 through 5-60 of the Draft EIR, and any documents referenced or incorporated therein.

6.2 - DIRECT GROWTH-INDUCING EFFECTS

The Project would implement warehouse/light industrial uses allowed under, and in a manner consistent with, the Moreno Valley Industrial Area Plan and City General Plan. The Project does not propose or require a change in land use that would result in additional development and associated growth beyond that anticipated under the City General Plan. Nor does the Project propose or require a change in land use designations that would generate additional employment beyond that anticipated under the City General Plan.

Jobs which may be created by the Project would be characteristic of the types of warehouse/light industrial employment opportunities available within the region, and would likely be filled by the City's resident population, or that of neighboring municipalities. On this basis, employment opportunities created by the Project would not result in or cause a significant influx of workers and related unanticipated permanent growth-inducing effects.

Based on the preceding, the Project would not directly result in unanticipated significant population growth or other significant direct growth-inducing effects.

References: Pages 5-59 through 5-60 of the Draft EIR, and any documents referenced or incorporated therein.

6.3 - INIRECT GROWTH-INDUCING EFFECTS

Investment in the Project would have local and regional economic impacts which may result in indirect growth-inducing effects. The Project's potential economic benefits could indirectly result in employment growth in the region. This growth, in combination with other anticipated employment growth in the region, could indirectly result in population growth and an increased demand for housing. Such growth has a variety of potential effects on the physical environment, including but not limited to, effects on air quality, ambient noise levels, traffic impacts, and water quality. The Project, in combination with other planned or anticipated projects in the area, would contribute to employment and population growth of the region.

Development of the Project as envisioned would entail upgrades to infrastructure in the immediate Project vicinity, including abutting roadways. Infrastructure improvements necessitated by the implementation of the Project could serve to facilitate and encourage development of nearby properties; however, City of Moreno Valley properties adjacent to the Project site are already developed or would be entitled for development pursuant to the Moreno Valley Industrial Area Plan.

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Development of these properties within the context of Moreno Valley Industrial Area Plan would not result in unforeseen or unmitigable impacts.

References: Page 5-60 of the Draft EIR, and any documents referenced or incorporated therein.

SECTION 7:
FINDINGS REGARDING SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines § § 15126, subd. (c), 15126.2, subd. (c), 15127, require that for certain types or categories of projects, an EIR must address significant irreversible environmental changes that would occur should the Project be implemented. As presented at Guidelines §15127, the topic of Significant Irreversible Environmental Changes need be addressed in EIRs prepared in connection with any of the following activities:

a) The adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency;

b) The adoption by a local agency formation commission of a resolution making determinations; or

c) A project which will be subject to the requirements for preparing of an environmental impact statement pursuant to the requirements of the National Environmental Policy Act of 1969, 42 U.S.C. 4321-4347.

The Project does not propose or require any of the above actions, and is not subject to *CEQA Guidelines* § § 15126, subd. (c), 15126.2, subd. (c), 15127 requirements.

References: Page 5-63 of the Draft EIR, and any documents referenced or incorporated therein.

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Appendix A: Statement of Overriding Considerations

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STATEMENT OF OVERRIDING CONSIDERATIONS

The California Environmental Quality Act (CEQA) requires the lead agency to balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve the project. The City of Moreno Valley proposes to approve the Indian Street Commerce Center project although significant and unavoidable adverse traffic, air quality, and greenhouse gas/global climate change impacts have been identified in the EIR.

Specifically, there are no feasible mitigation measures, changes or alterations that are available to reduce the project's significant cumulative traffic impacts to less than significant at certain intersections, roadway segments, and freeway facilities, as described above and in the Final EIR. Additionally, even after implementation of all feasible mitigation measures, project operational-source NOx emissions exceedances would persist and constitute significant and unavoidable air quality impacts, and would result in a cumulatively considerable net increase in ozone and $PM_{10}/PM_{2.5}$ within the non-attainment areas. Finally, Project GHG emissions would exceed the significance threshold employed by the City, would not conform to State GHG emissions reduction targets, and would be cumulatively considerable in the context of existing GHG emissions levels and GHG emissions that would be generated by other known or probable GHG emissions sources.

Changes and alterations are required in or incorporated into the project to reduce these project impacts to the maximum extent possible.

Even though these adverse impacts are not reduced to a level considered less than significant, the Moreno Valley Planning Commission finds, after balancing these impacts with the benefits of the project, that those impacts are outweighed by the benefits of the project. Further, the alternatives which were identified in the EIR would not meet either in part or in whole to the same extent as the proposed project, the project objectives, and or would not substantially lessen identified environmental impacts.

Pursuant to Public Resources Code Section 21081(b) and the Guidelines Section 15093, the City has balanced the benefits of the proposed Project against the following unavoidable adverse impacts associated with the proposed Project and has adopted all feasible mitigation measures with respect to the significant and unavoidable adverse traffic, air quality, and noise impacts described above.

The City also has examined alternatives to the proposed Project, none of which both meets the Project objectives to the same extent as the proposed project and is environmentally preferable to the proposed Project. The City, after balancing the specific economic, legal, social, technological, and other benefits of the proposed Project, has determined that the unavoidable adverse environmental impacts identified above may be considered "acceptable" due to the following specific considerations which outweigh the unavoidable, adverse environmental impacts of the proposed Project. Each of the

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separate benefits of the proposed Project, as stated herein, is determined to be, unto itself and independent of the other Project benefits, a basis for overriding all unavoidable adverse environmental impacts identified in these Findings. The Planning Commission and City Planning Staff have independently verified the existence of all facts stated below to justify the State of Overriding Considerations. Project benefits include:

1. The Project will implement the City's General Plan through development that is consistent with the General Plan Community Development Element and applicable General Plan Goals, Objectives, Policies and Programs;

2. The Project will implement the Moreno Valley Industrial Area Plan through development that is consistent with the Area Plan land uses and development concepts, and in total supports the Area Plan Vision;

3. The Project will provide adequate roadway and wet and dry utility infrastructure to serve the Project;

4. The Project will accommodate warehouse and manufacturing uses that are compatible with adjacent land uses;

5. The Project will provide an attractive, efficient and safe environment for warehouse uses that is cognizant of natural and man-made conditions;

6. The Project will accommodate a mix of warehouse and manufacturing uses responsive to current and anticipated market demands;

7. The Project will establish new development that would increase locally available employment opportunities and would further the City's near-term and long-range fiscal goals and objectives;

8. The Project will establish new development that would increase locally available employment opportunities thereby improving jobs/housing balance within the City.

9. The Project will have substantial economic benefits, as set forth in a report prepared by Andrew Chang & Co., dated November 2016, contributing $63.6 million to $157.7 million annually to the local economy and generating $160,000 to $260,000 in new annual tax revenue to the City's General Fund[1];

[1] *Indian Street Commerce Center Economic and Fiscal Impact Report* (Andrew Chang & Co.) November 2016 is provided under separate cover.

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10. The Project will provide 50-60 construction jobs, including opportunities for highly trained workers;

11. The Project will create 500-540 new permanent jobs, including opportunities for highly trained workers.

Therefore, the Moreno Valley Planning Commission, having reviewed and considered the information contained in the EIR and the public record makes and adopts this Statement of Overriding Considerations by which the Moreno Valley Planning Commission, after balancing the economic, legal, social, technological and other benefits of the project, against the unavoidable adverse impacts of the project, states the specific reasons to support its approval of the project notwithstanding the existence of the significant and unavoidable impacts described above.

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SARES·REGIS Group

Indian Street Commerce Center Project: Economic and Fiscal Impact Report

November 2016

ANDREW CHANG & CO, LLC

1107 9th Street, Suite 501, Sacramento ■ CA 95814 ■ 916-538-6091

Resolution 20
Date Adopted: February 7, 2017

About Andrew Chang & Company, LLC:

The professionals at Andrew Chang & Company work with our clients to achieve tangible results by combining our best-in-class research and analyses with unique insights into public policy as well as business and government strategy and operations. Using advanced economic, statistical, and business administration techniques, we provide strategy and operations consulting to Fortune 1000 firms and provide policy, economic, fiscal, and operations consulting for public sector agencies and non-profit organizations to improve operations.

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Indian Street Commerce Center Project: Economic and Fiscal Impact Report
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Indian Street Commerce Center Project: Economic and Fiscal Impact Report
(Key Findings)

- Construction spending and operations revenue for the Indian Street Commerce Center Project is projected to generate $772.2 million – $3.7 billion in new direct spending over 20 years, with $21.5 million of that generated directly from construction and annual operations of the Project generating $59.4 – $238.1 million.
- The City of Moreno Valley is projected to receive $3.2 – $5.3 million in net tax revenue as a result of the Project construction and operations over the same time period, or an average of $160,000 – $260,000 per year.
- General Fund revenue is generated from six impacted tax categories with a total amount of roughly $5.9 – $8.1 million in new tax revenues over 20 years.
- Expenditures from police and fire protection will total of $2.7 – $2.9 million over 20 years.
- Project operations are estimated to create and sustain 500 – 540 new direct and indirect jobs in the City of Moreno Valley while the two-year construction period is projected to create 50 – 60 jobs in the City.
- The Project is projected to generate a cumulative total of $328.3 – $609.7 million in new household earnings over 20 years, an average annual increase of $16.4 – $30.5 million.
- The Project is projected to generate a cumulative total of $1.3 – $3.2 billion in increased economic output for the City over 20 years, an average increase of $63.6 – $157.7 million annually.

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1. Introduction

The City of Moreno Valley is located in the northwest portion of Riverside County, California. Sares Regis Group, a pre-eminent developer and provider of comprehensive commercial and real estate services throughout the western United States, has submitted its application to the City to develop a Commerce Center Project totaling 446,350 square feet of light industrial uses within an approximately 19.64-acre site.

In order to inform the discussion regarding the development, Sares Regis Group has retained Andrew Chang & Company, LLC to conduct an economic and fiscal impact analysis of the proposed development on the City. This study analyzes the one-time impact on the City resulting from the construction of the Project, the ongoing impact on the City as a result of facility operations on the City's General Fund budget, and also characterizes the general economic impacts on the City in terms of employment, household earnings, and economic output creation for City residents and workers. Key questions addressed include the following:

- What is the impact on City General Fund revenues on a one-time and ongoing basis?
- What is the impact on City General Fund expenditures on an ongoing basis?
- What is the net fiscal General Fund impact on a one-time and ongoing basis?
- What are the direct and indirect impacts (multiplier effect) of the initiative on employment in the local area on a one-time and ongoing basis?
- What are the direct and indirect impacts (multiplier effects) of the initiative on regional economic output on a one-time and ongoing basis?
- What are the direct and indirect impacts (multiplier effects) of the initiative on regional personal earnings on a one-time and ongoing basis?

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It should be noted that there may be other impacts, such as the effects on adjacent property values that were not assessed within the scope of this study due to the high degree of uncertainty. Depending on how the property will ultimately be used and how the market reacts, property values could marginally increase, decrease, or remain unaffected.

In conducting this analysis, the study team has applied generally accepted principles of public policy analysis, finances, economics, and mathematics. In addition to reporting findings, this study documents the approach, data sources, and assumptions for our assessment.

2. Background

Current & Proposed Land Use

Study Scope & Approach

The purpose of this study is to ascertain the economic and fiscal impact of the Indian Street Commerce Center Project. Specifically this report seeks to answer the following questions:

- What is the impact to the City's General Fund?
  - What are the one-time and ongoing impacts to the City's General Fund revenues?
  - What are the one-time and ongoing impacts to the City's General Fund expenditures?
  - What is the net gain/loss to the City from the Project?
- What is the one-time and ongoing effect of the Project on job creation within the City?
- What is the one-time and ongoing impact of the Project on economic output within the City?
- What is the one-time and ongoing effect of the Project on household earnings within the City?

In addressing these questions the study approach relies on generally accepted principles of public policy analysis, finances, economics, and mathematics to construct cash-flow/direct spend and economic models specific to the project. The models rely upon information provided by the applicant and publicly available sources. In the instance where data and/or necessary information was unavailable, assumptions were made according to industry standards and are well documented within the body and Appendixes of this report.

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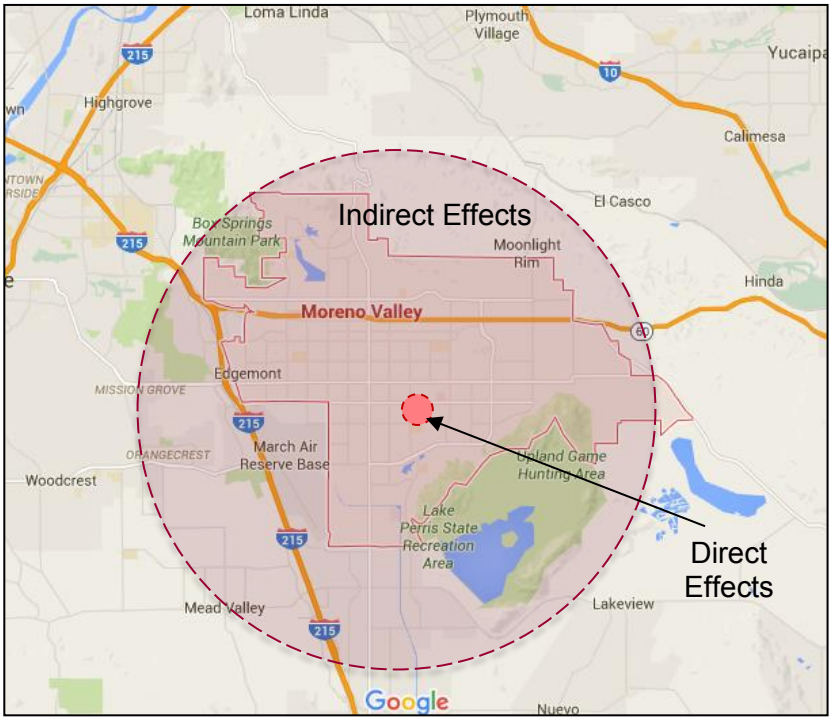
The direct and indirect impact of the construction and the business operations on the site are measured to account for the holistic impact of the project development and business operations on the site. The term “Direct Effect” represents the economic effect produced by the infusion of new monies into the local economy from construction and operations spend. The term “Indirect Effect” represents the economic effects of local inter-industry spending for goods and services to support construction and operations of the facilities. Both the direct and indirect impacts for each measured impact are summed to provide the “Total Impact” on the City of Moreno Valley. See Figure 2.3 below for a graphical representation of these discussed differences.

Figure 2.1

Direct & Indirect Effects



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3. Scenario Analysis

Three scenarios, Low, Median, and High, were developed in order to account for full the range of possible revenues the Project would generate throughout its operation. This range is due to uncertainties regarding operation revenues per square foot and the specific sub-industries for the manufacturing and office spaces. The estimated cost of construction was provided by the applicant and therefore fixed. Construction is estimated to be completed in roughly two years with the estimated cost divided evenly across each year. Of the construction spend, 40% is assumed to be for materials per industry standards.[1] [2]

The range of revenues for the project spaces was calculated using RIMS II regional multipliers, industrial statistics, and EDD employment data. The average number of employees per industry square foot was first calculated by dividing the total number of active square feet for each industry within the Inland Empire by the total number of employees for each industry in the same region. This ratio was then factored by several sub-industry specific multipliers in order to calculate and determine the Low, Median, and High revenue ranges as shown below in Table 3.1. See Appendix A for a detailed methodology.

Table 3.1

Revenue Scenarios

Project Space	Low (Revenue/Sq Ft)	Median (Rev/Sq Ft)	High (Rev/Sq Ft)
Warehousing	$35	$35	$35
Manufacturing	$584	$1,766	$2,793
Office	$975	$2,163	$3,595

[1] Construction Labor Market Analyzer, "CLMA Project Labor Cost Allocation," (2016), accessed May 11, 2016, http://myclma.com/wp-content/uploads/2015/02/CLMA-Allocation-of-Project-Cost-2014Oct27.pdf.

[2] George Hedley, "Construction Labor Costs – 5 Percent Factor," Construction Business Owner, accessed May 11, 2016, http://www.constructionbusinessowner.com/topics/accounting/accounting-finance/construction-labor-costs-5-percent-factor.

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There was no calculated range for the warehousing project space as the warehousing industry is more homogenous than manufacturing and office industries, which have several sub-industry classifications. Sub-industry classifications included in this range for the manufacturing and office spaces are listed below in Table 3.2.

Table 3.2

Sub-Industry Classifications

Manufacturing Sub-Industries	Office Sub-Industries
Apparel and leather and allied product **(Low)**	Administrative and support services **(Low)**
Computer and electronic product	Funds, trusts, and other financial vehicles
Electrical equipment and appliance	Insurance carriers and related activities
Food and beverage and tobacco product	Management of companies and enterprises **(High)**
Furniture and related product	Professional, scientific, and technical services **(Median)**
Machinery **(Median)**	Real estate
Miscellaneous	Rental and leasing services and lessors of intangible assets
Motor vehicles, bodies and trailers, and parts	Securities, commodity contracts, and investments
Nonmetallic mineral product	
Other transportation equipment **(High)**	
Paper manufacturing	
Textile mills and textile product mills	
Wood product	

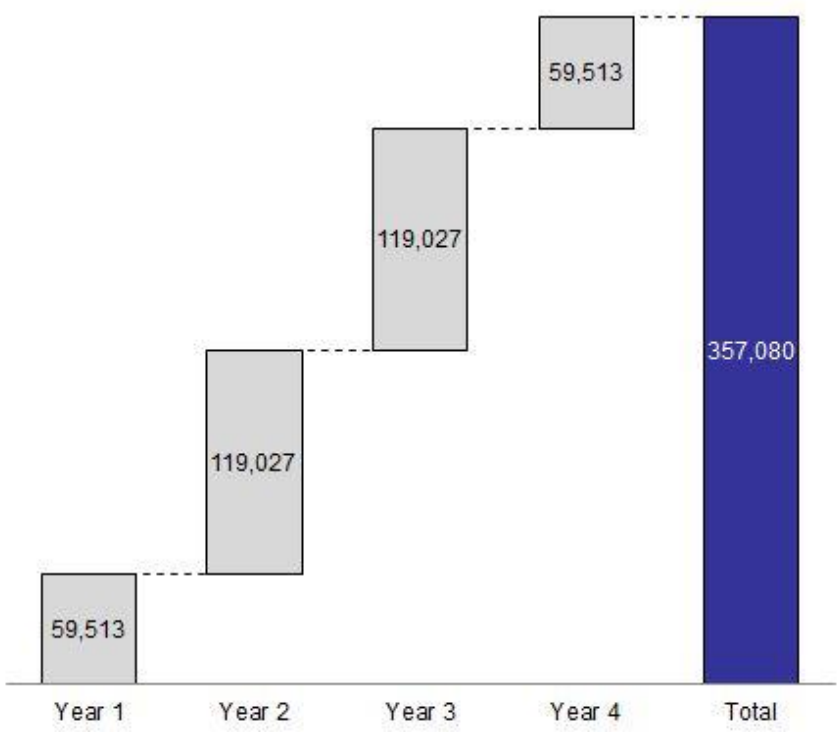
In order to preserve a conservative estimate for all scenarios it is assumed that there will be a three-year ramp-up period before the Project reaches a maximum utilization rate of 80%. This is an especially conservative estimate as the total industrial utilization rate for the area is roughly 95%.[3] Utilization is measured by the number of square feet activated as shown in Figure

[3] CBRE, 2015 YTD is through the 2Q 2015.

3.1 below. As square footage activation increases in the initial three years of operations the economic and fiscal impact will increase as well.

Figure 3.1

Project Square Footage Activation



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4. Direct Spend

Direct spend represents the influx of new cash as a result of the Project and is composed of the cost of construction and the revenue generated through the operations of the three Project units: warehouse, manufacturing, and office. Construction costs are calculated as detailed in the previous section. Operations revenue is calculated by factoring the active square footage of the Project for the given year by the estimated revenue per square foot for each unit as detailed in the previous section. These estimates were calculated for the next 20 years, with the first two years accounting for construction and three years of ramping up starting in Year 1 so that the Project reaches and maintains peak revenue generation by Year 4 ($59.4 – $238.1 million). In all scenarios, manufacturing, despite being a smaller component of the total square footage of the Project, accounts for the largest total portion of the revenue generation ($772.2 million to $3.7 billion). See Figure 4.1 below for an annual representation of each scenario. See Figures 4.2 – 4.4 below for twenty-year totals by construction and unit for each scenario.

Figure 4.1

Annual Direct Spend Analysis ($Millions)

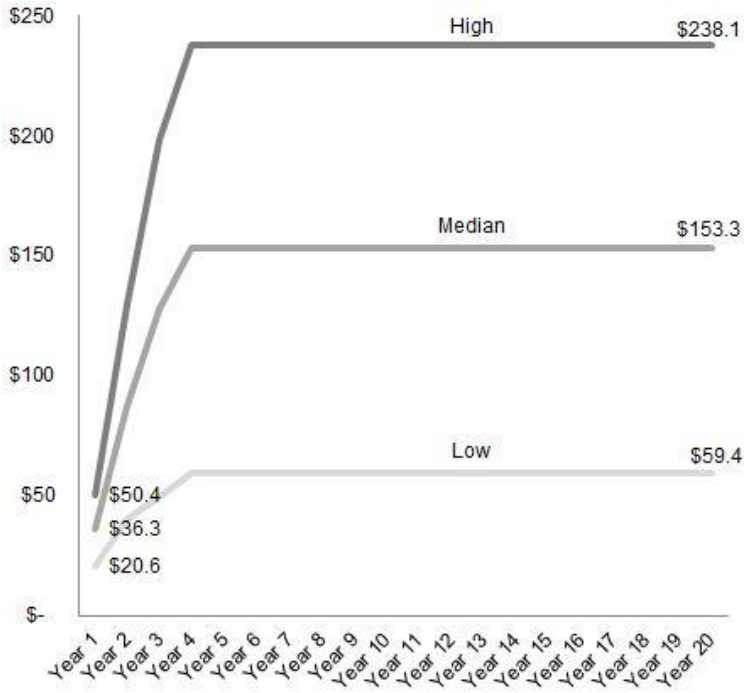

Figure 4.2

Total Direct Spend Analysis – Low Scenario ($Millions)



Figure 4.3

Total Direct Spend Analysis – Median Estimate ($Millions)

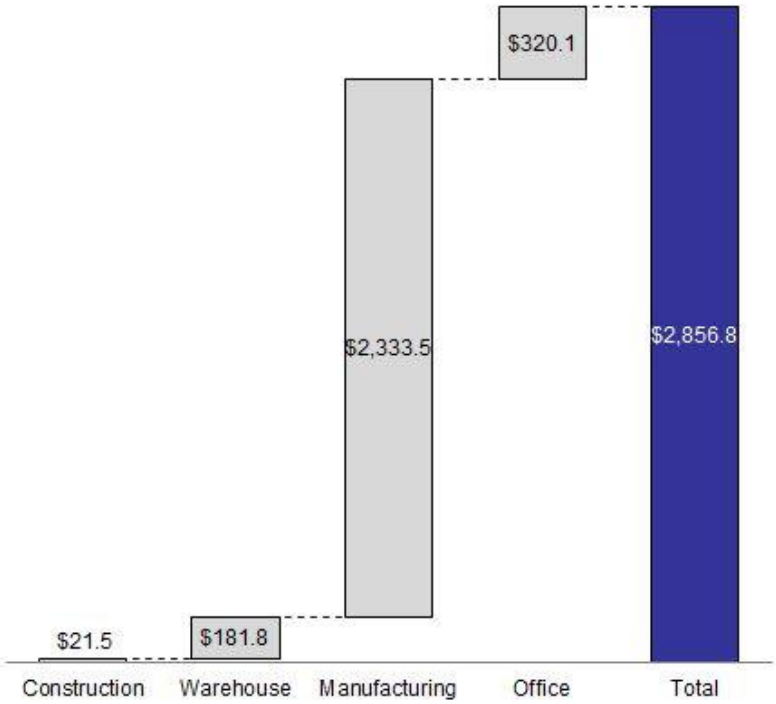

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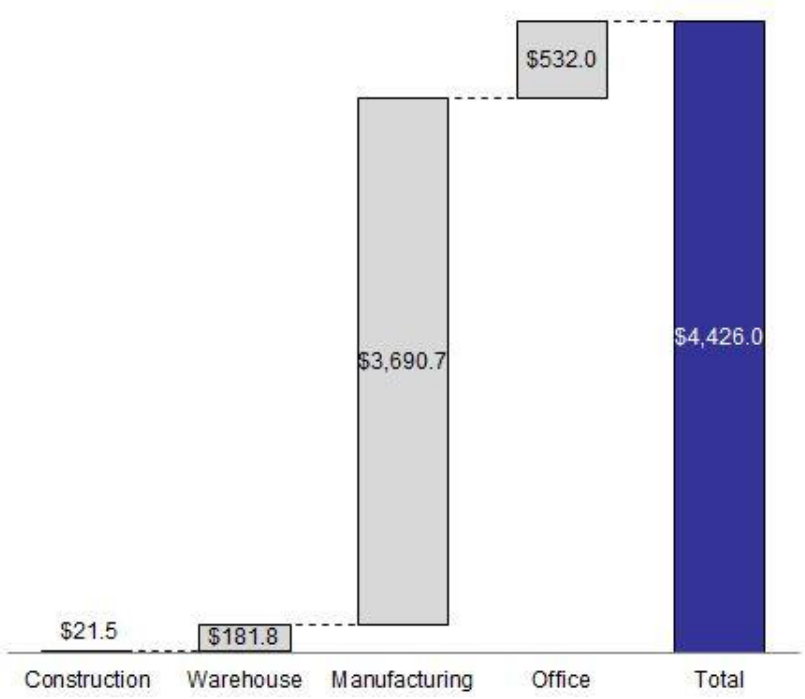
Figure 4.4

Total Direct Spend Analysis – High Scenario ($Millions)



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5. City Revenue and Expenditures

This study's approach calculates both revenues and expenditures to the City of Moreno Valley's budget resulting from the Project in order to determine the net fiscal impact to the City. This study reviewed the most recent Adopted Budget for the City of Moreno Valley and identified six tax categories that will be impacted by the Project and provide General Fund revenue to the City as listed below (see Appendix B – Tax Revenue Scope & Methodology for additional details regarding the scope of expected tax revenue and its justification):

- Sales tax, including one-time sales tax on construction materials, effective sales tax on earnings, and sales tax on taxable goods through Project operation;
- Property tax;
- Utility tax;
- Gross receipts tax;
- Franchise fee; and
- VLF Property tax in-lieu.

The review of the most recent Adopted Budget also identified recurring expenditures potentially impacted by the Project as listed below (see Appendix C – General Fund Cost Analysis Scope & Methodology for additional details regarding the scope of expected expenditures and its justification):

- City Police services; and
- Fire services.

These costs were calculated using a per capita multiplier method where new employees are assumed to be a one for one added total capita (see Appendix C – General Fund Cost Analysis Scope & Methodology for further details). As a result, the High scenario generated the highest costs as it also generated the highest projected increases in employment (see the following

section, Employment, for further detail regarding job creation). Typically speaking these costs are paid for by the applicant through municipality development impact fees. However, in order to preserve a conservative estimate this approach assumes the cost will be absorbed by the City.

Once the total revenue and expenditures are calculated, the difference between each figure provides the net revenue for the City's General Fund ($3.2 – $5.3 million over 20 years for an average of $160,000 – $260,000 per year) as detailed below in Table 5.1 and graphically in Figures 5.1 – 5.3 below.

Table 5.1

Net Fiscal Impact – 20 Year Cumulative Total ($Millions)

Item	Low Scenario	Median Scenario	High Scenario
Gross Revenue	$5.9	$7.3	$8.1
Expenditure	$2.7	$2.8	$2.9
Net Revenue	$3.2	$4.5	$5.3

**Totals may not add up due to rounding.*

Figure 5.1

Net Fiscal Impact – Low Scenario ($Millions)

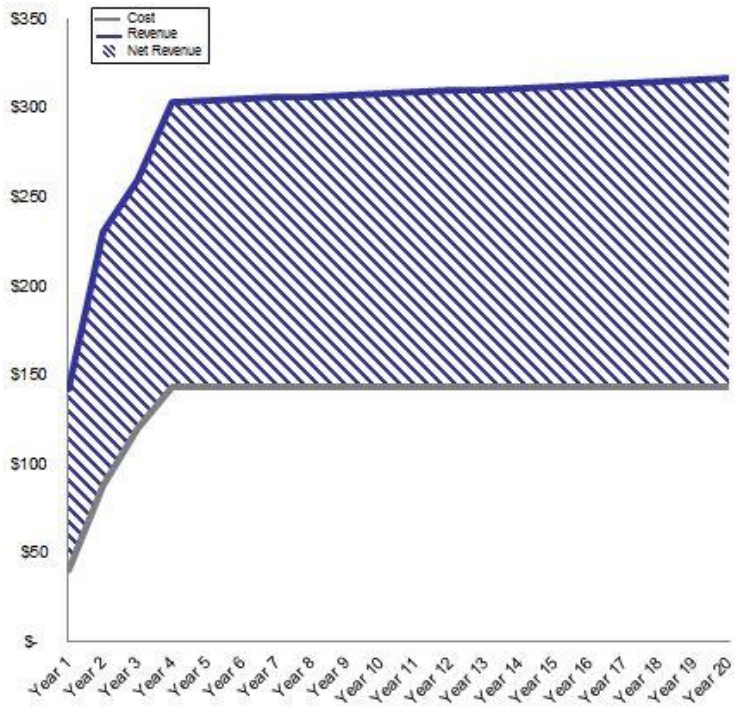

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Figure 5.2

Net Fiscal Impact – Median Scenario ($Millions)

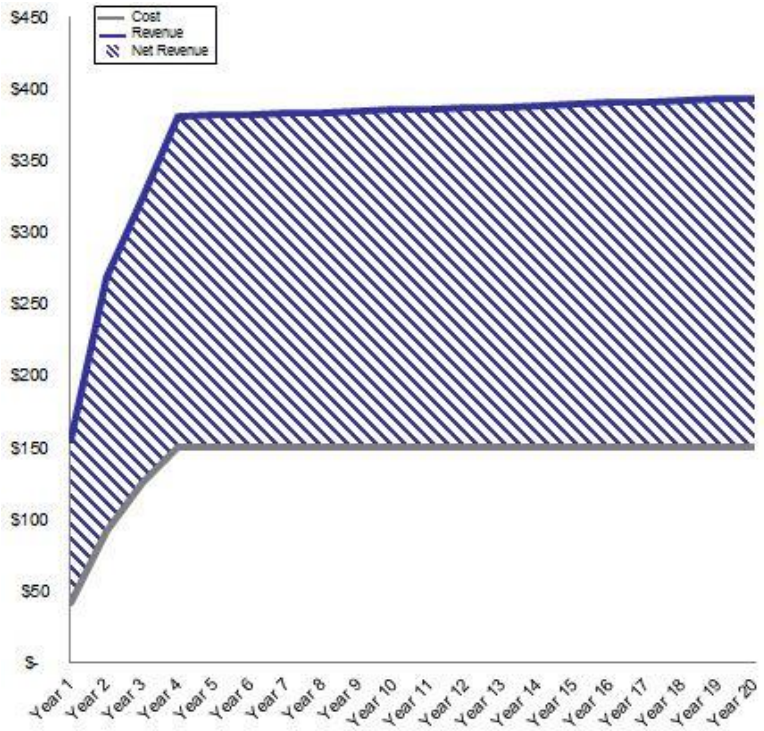
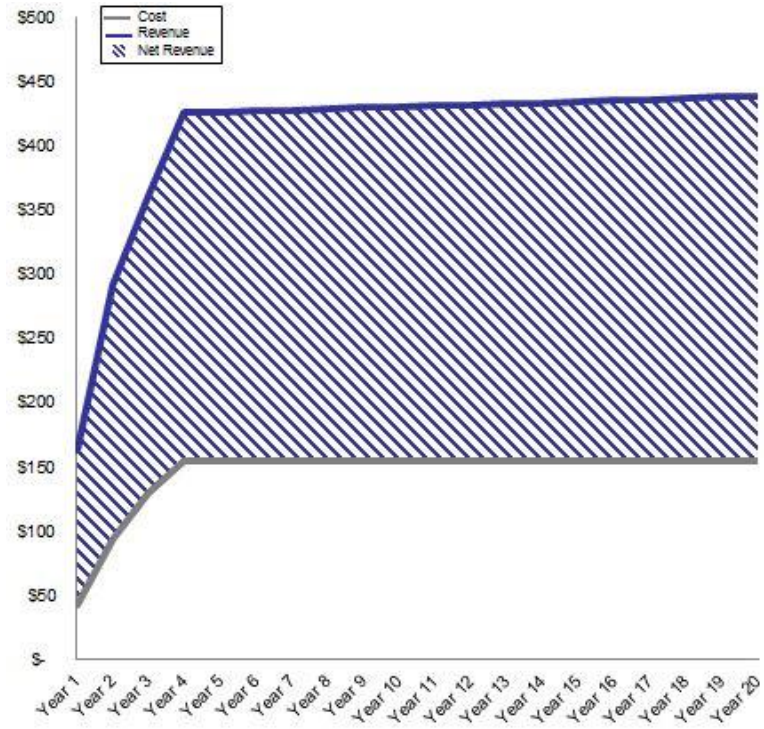


Figure 5.3

Net Fiscal Impact – High Scenario ($Millions)



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The variation in revenue is driven by changes in the effective sales tax and gross receipts tax across the three scenarios, which vary by $1.7 – $3.1 million and $0.3 – $1.1 million respectively. This fluctuation is due to the difference in household earnings and operations revenue generated across the three scenarios. The remaining six revenue sources do not vary across the three scenarios as they are not dependent on the varying levels of revenue, but on factors that are fixed in this study's model, including utility usage, property value, and the cost of construction. See Figures 5.4 – 5.6 below for a breakdown of all revenue sources over 20 years.

Figure 5.4

Tax Revenue by Source – Low Scenario

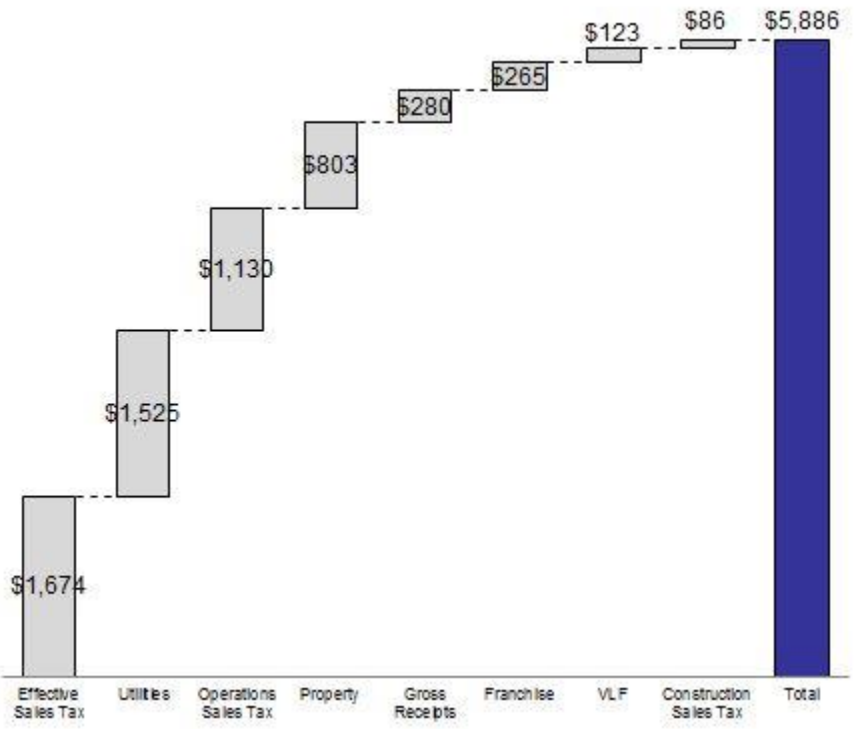

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Figure 5.5

Tax Revenue by Source – Median Scenario

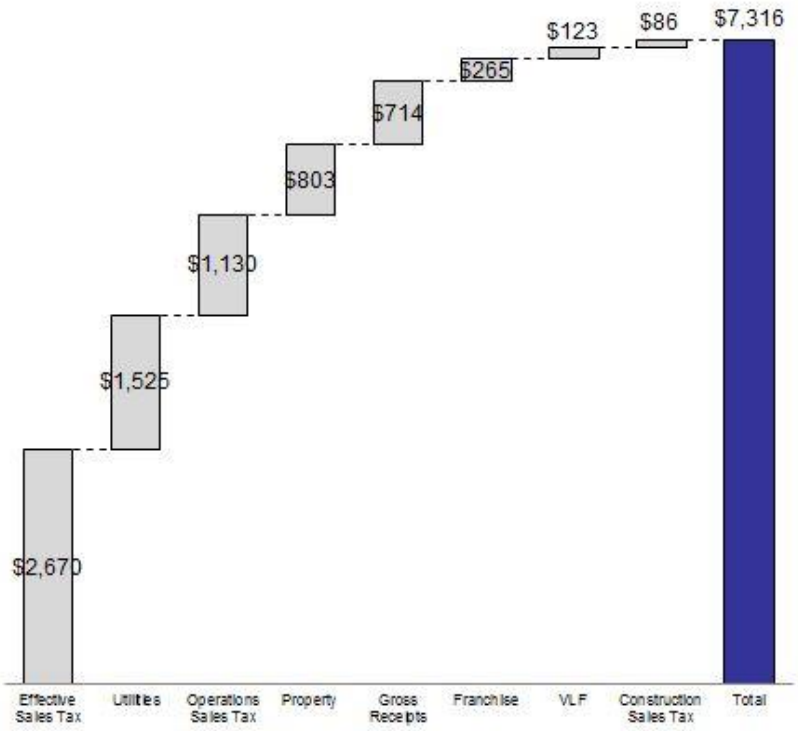
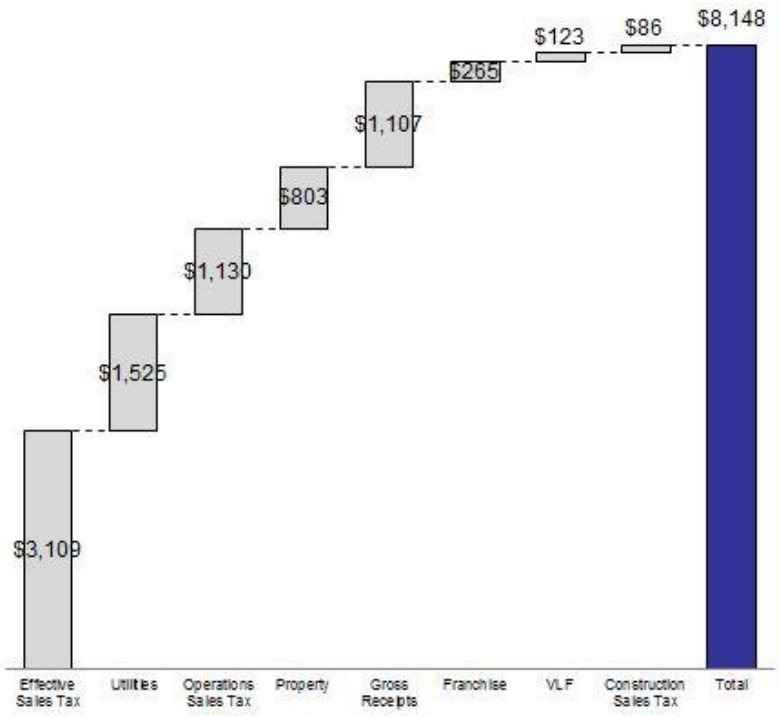


Figure 5.6

Tax Revenue by Source – High Scenario



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The variation in General Fund expenditures ($2.7 – $2.9 million in a 20-year cumulative total or $130,000 - $145,000 annual average) is driven by the change in projected employment, as expenditures are calculated on a per capita multiplier method. See Figures 5.7 – 5.9 below for a breakdown of all expenditure sources and variations across the three scenarios.

Figure 5.7

Tax Expenditure by Source – Low Scenario

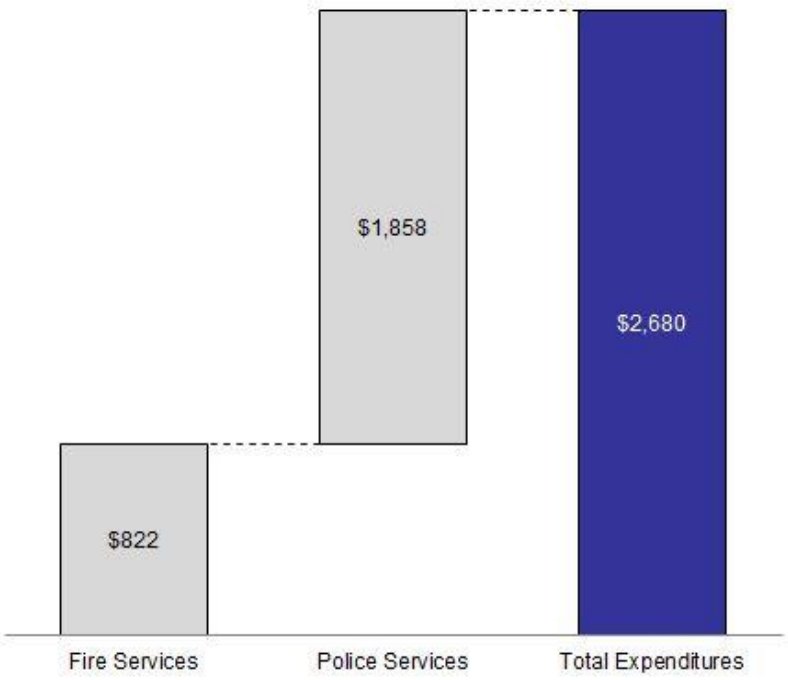

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Figure 5.8

Tax Expenditure by Source – Median Scenario

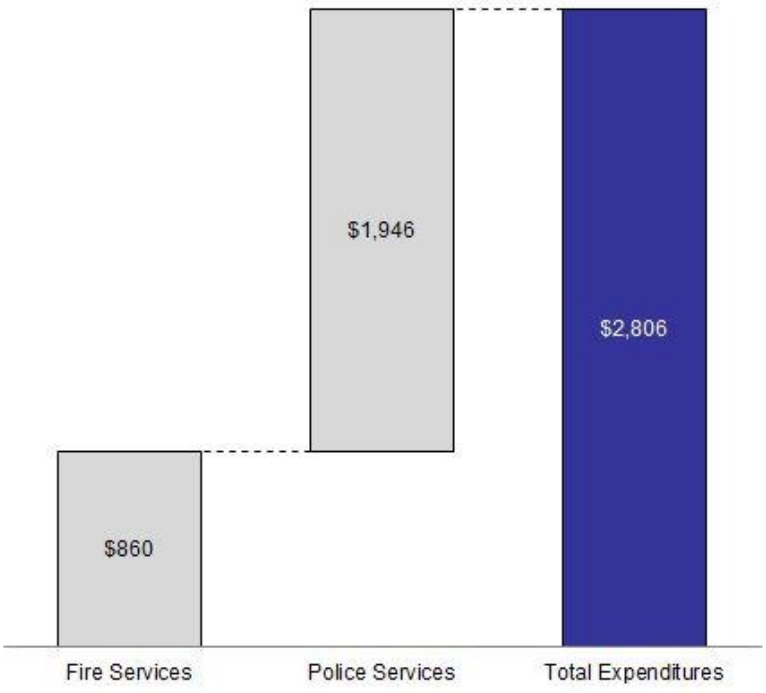
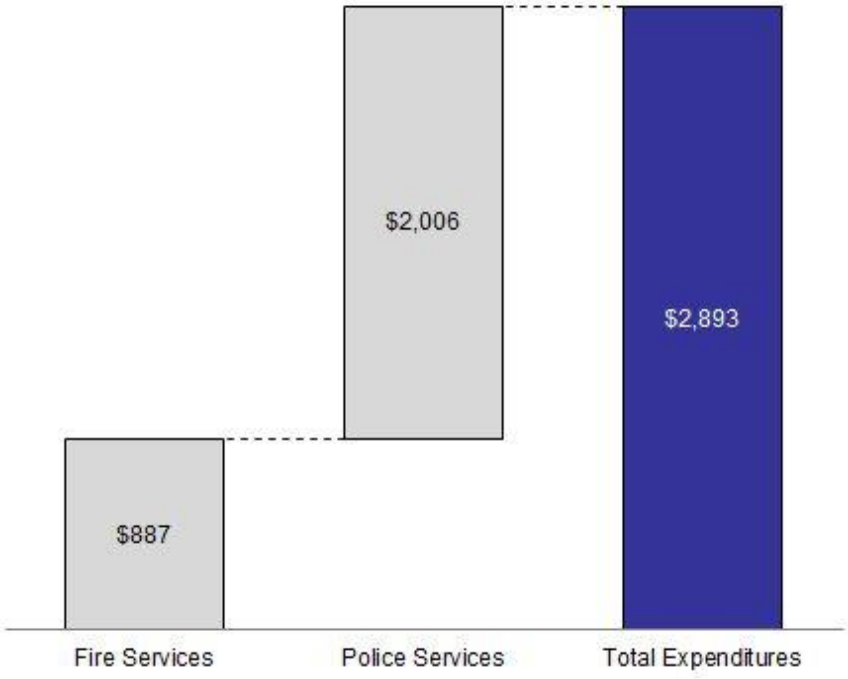


Figure 5.9

Tax Expenditure by Source – High Scenario



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6. Employment

Employment is generated by the influx of new spending created by the construction and operations of the Project. Once fully operational, the Project is projected to create and sustain 500 – 540 direct and indirect jobs within the City of Moreno Valley. Jobs created by the construction of the Project, roughly 50 – 60 jobs, will be created for the first two years but will not be sustained after that period. However, total job creation will continue to grow until Year 4 and is projected to be maintained from that point. Once fully operational, the manufacturing unit of the Project will sustain the most direct and indirect new employment, from roughly 340 – 370 jobs, while the office unit is projected to sustain 90 – 100 jobs and the warehouse unit is projected to sustain roughly 70 jobs. See Figure 6.1 below for an annual comparison of new employment across all three scenarios and Figure 6.2 below for a breakdown of the total number of jobs sustained by each unit once fully operational.

Figure 6.1

Annual Job Creation

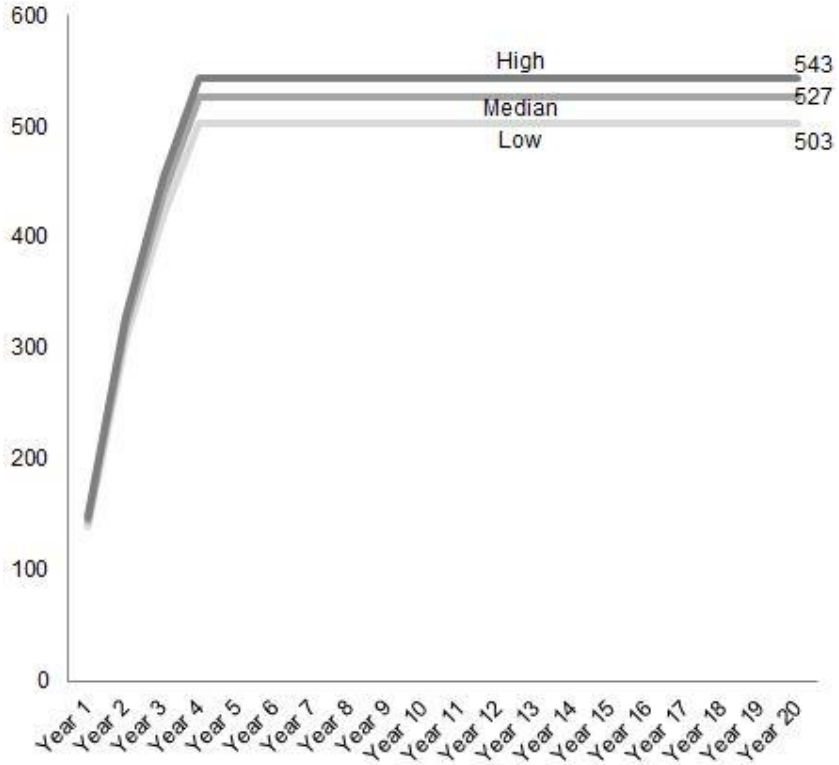

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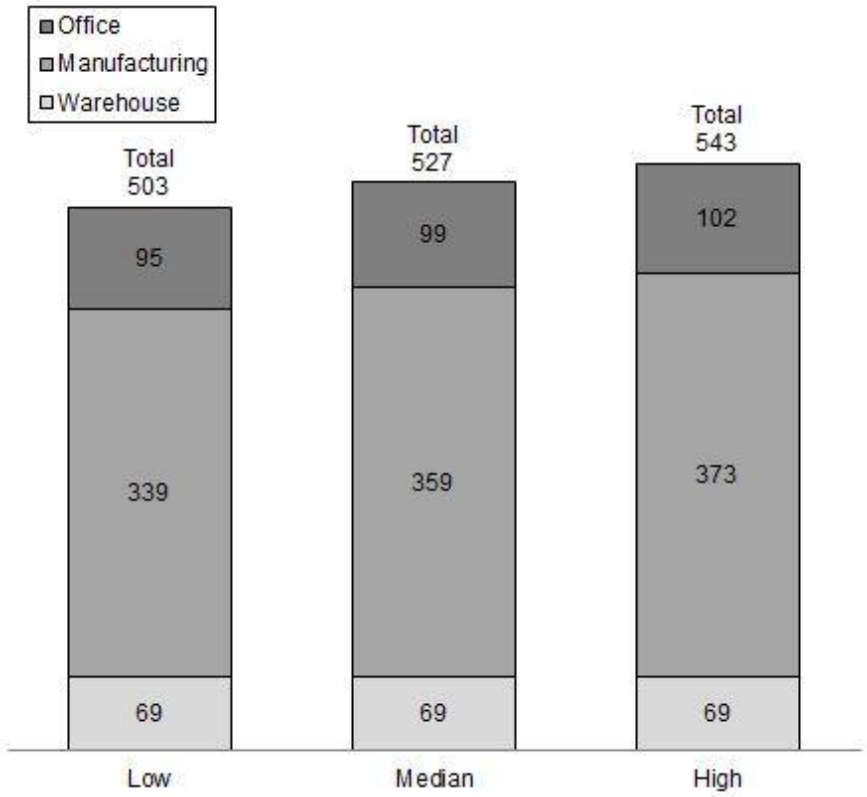
Figure 6.2

Total Job Creation by Project Unit



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7. Household Earnings

Household earnings for City residents are estimated to increase annually as a result of Project construction and operation, with a starting point in Year 1 of roughly $5.6 – $8.1 million in increased earnings to the sustained annual amount of $17.5 – $32.7 million by Year 4 as shown below in Figure 7.1. By Year 20, total increases in household earnings resulting from the Project are projected to reach $328.3 – $609.7 million as a result of the Project as shown in Figure 7.2 below, an annual average of $16.4 – $30.5 million. Household earnings also generate effective sales tax revenue as referenced in Section 5. See Appendix E – Earnings & Output Methodology for additional details regarding the approach utilized in this study.

Figure 7.1

Annual Increase in Household Earnings – ($Millions)

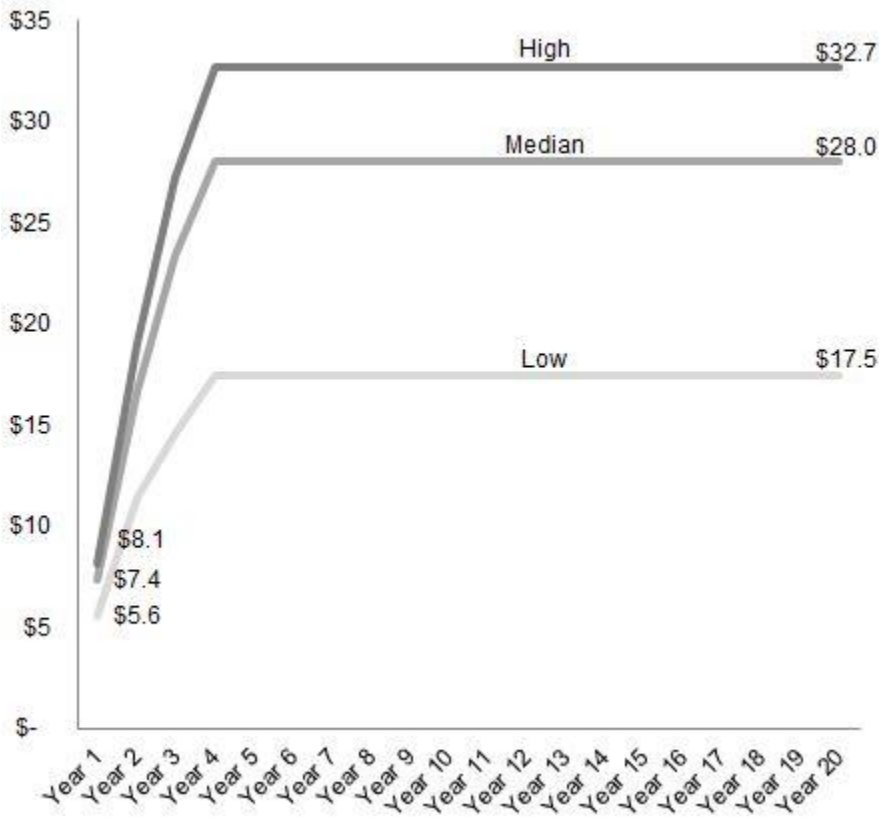

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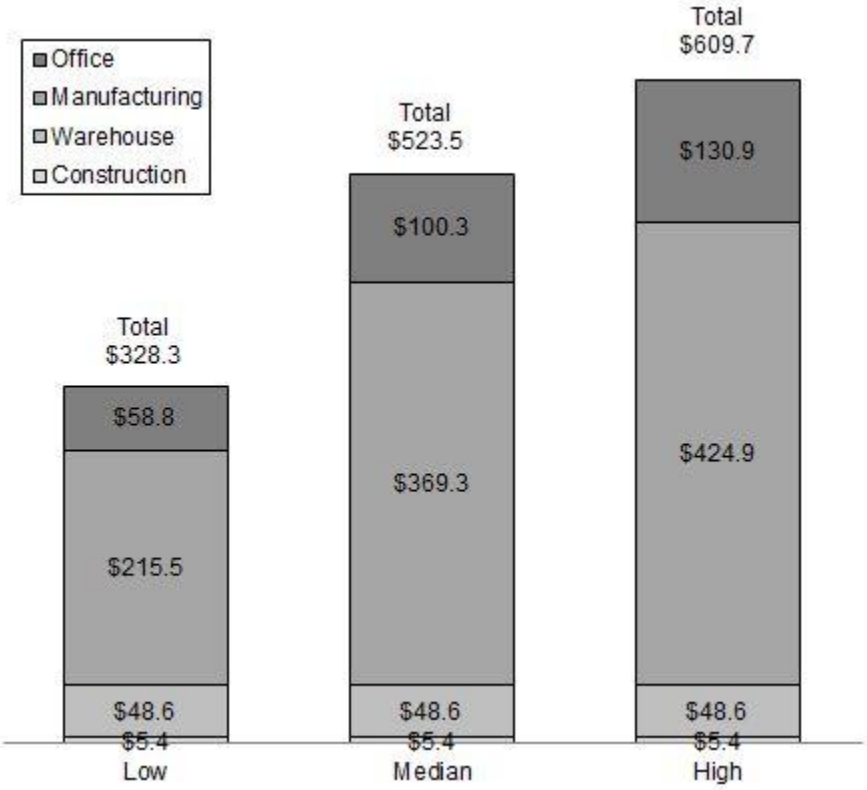
Figure 7.2

Total Increase in Household Earnings by Project Unit – ($Millions)



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8. Economic Output

Economic output for the City of Moreno Valley is projected to increase annually as a result of Project construction and operation, with a starting point in Year 1 of roughly $22.0 – $39.0 million in increased economic output to the sustained annual amount of $67.6 – $169.3 million by Year 4 as shown below in Figure 8.1. By Year 20, total increases in economic output resulting from the Project are projected to reach $1.3 – $3.2 billion as shown in Figure 7.2 below, an annual average of $63.6 – $157.7 million. See Appendix E – Earnings & Output Methodology for additional details regarding the approach utilized in this study.

Figure 8.1

Annual Increase in Economic Output ($Millions)

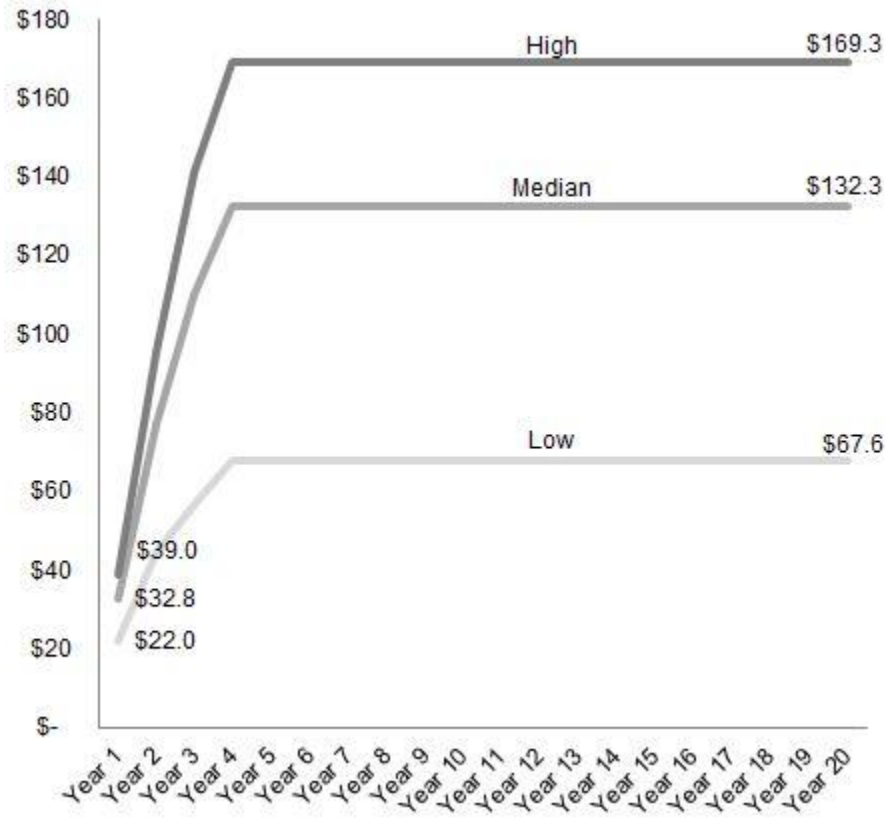

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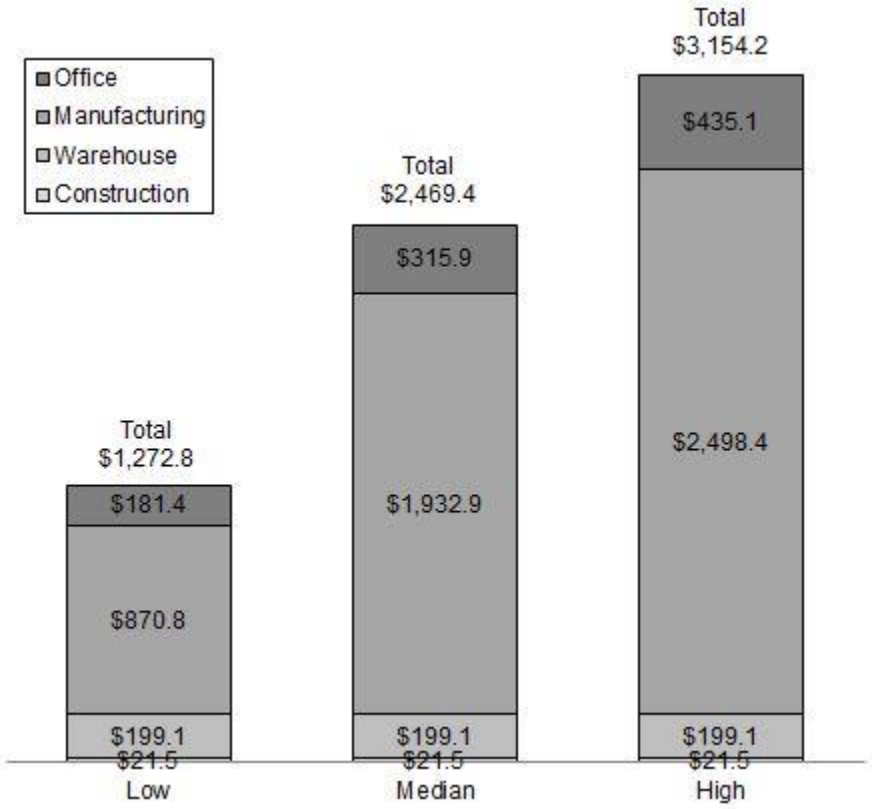
Figure 8.2

Total Increase in Economic Output by Project Unit ($Millions)



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9. Conclusion

Sares Regis Group, a pre-eminent developer and provider of comprehensive commercial and real estate services throughout the western United States, has proposed to develop the Indian Street Commerce Center Project in the City of Moreno Valley totaling 446,350 square feet on approximately 19.64 acres of land. The Project is estimated to cost $21.5 million to construct over two years, which would support 50 – 60 jobs in that time. In the 20-year scope of this study, the Project is projected to generate $772.2 million – $3.7 billion in new direct spend through construction and operations. This influx of funds will have economic and fiscal impacts on the City of Moreno Valley in the form of net fiscal revenue, job creation, household earnings, and economic output.

Net fiscal revenue for the City is estimated to increase by an annual average of $160,000 – $260,000 over 20 years, with a cumulative total of $3.2 – $5.3 million. This net fiscal revenue is the result of roughly $5.9 – $8.1 million in new tax revenue generated by the Project offset by $2.7 – $2.9 million in General Fund expenditures. Project operations are estimated to create and sustain 500 – 540 new jobs specific to the City. Additionally, it is projected to increase household earnings by a 20-year total of $328.3 – $609.7 million, or an annual average of $16.4 – $30.5 million, as well as economic output by a 20-year total of $1.3 – $3.2 billion, or an annual average of $63.6 – $157.7 million.

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Appendix A – Direct Spend Methodology

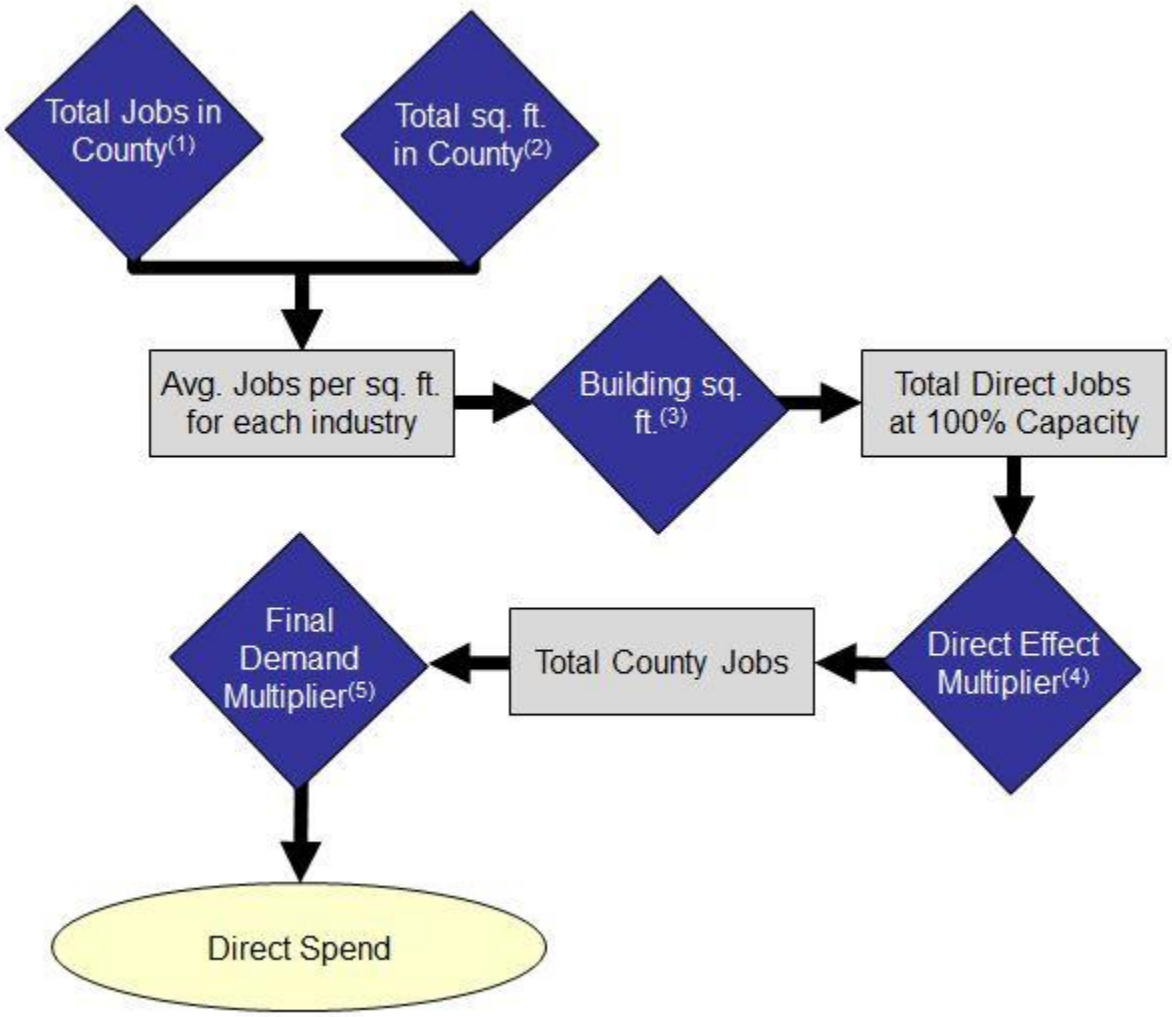
The direct spend for the Indian Street Commerce Center Project is comprised of two components: construction-spend and operations revenue of the Project once operational. Construction-spend estimates were provided by the applicant and divided evenly across the estimated two-year timespan for construction.

Operations revenue estimates were calculated on revenue per square foot basis. This was done by first calculating the average ratio of jobs per square feet of active space for each industry within the Inland Empire, with the Employment Development Department providing data on industry-specific employment totals[4] and various private organizations providing data on total active square footage for warehousing, manufacturing, [5] and office space.[6] This ratio was factored by the square feet for each unit to calculate the average number of direct jobs expected in each unit assuming 100% operation capacity and then factored by the industry-specific direct effect multiplier as produced by the U.S. Bureau of Economic Analysis (BEA)[7] to find the expected total number of new jobs (direct and indirect) in Riverside County as a result of the Project. The total number of new jobs in the county was then divided by the industry-specific final demand multiplier, also produced by the BEA,[8] to find the expected direct spend of the Project. With the direct spend estimated for each industry type, each perspective total is divided by the total square footage for each industry type to find the expected revenue per square foot. See Flowchart A.1 below for a graphical representation of this approach.

[4] Employment Development Department, Labor Market Information Division. "Riverside San Bernardino Ontario MSA." (2016). Accessed November 9, 2016. http://www.labormarketinfo.edd.ca.gov.
[5] Teresa Petrosyan. "Industrial Statistics: Inland Empire, Q3 2016." Jones Lang LaSalle IP, Inc, 2016.
[6] Robert Caudill; Matteson, Caitlin; and Phadungsilp, Juliet. "Indland Empire Office: Market Snapshot Q2 2016." Colliers International. 2016.
[7] U.S. Bureau of Economic Analysis, Regional Multipliers. Series: 2013 U.S. Annual I-O Data and 2013 Regional Data. Region: Riverside.
[8] U.S. Bureau of Economic Analysis.

Flowchart A.1

Direct Spend Methodology



Notes

(1) Total jobs by industry in Riverside and San Bernardino Counties for 2016 as listed in the California Employment Development Department's Labor Market Information Division database.[9]

(2) Total square footage by industry in Riverside and San Bernardino Counties as listed in Jones Lang LaSalle's Industrial Statistics for the Inland Empire for Q3 2016 for

[9] Employment Development Department, "Riverside, San Bernardino, Ontario MSA."

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warehousing and manufacturing,[10] and in Colliers Market Snapshot for the Inland Empire for Q2 2016 for office space.[11]

(3) Building square footage for Indian Street Commerce Center Project as provided by applicant.

(4) Direct effect regional multipliers (RIMS II) for Riverside County produced by the U.S. Bureau of Economic Analysis.[12]

(5) Final demand regional multipliers (RIMS II) for Riverside County produced by the U.S. Bureau of Economic Analysis.[13]

[10] Petrosyan.
[11] Caudill.
[12] U.S. Bureau of Economic Analysis.
[13] U.S. Bureau of Economic Analysis.

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Appendix B – Tax Revenue Scope & Methodology

Scope

The 2016-17 Adopted Budget for the City of Moreno Valley[14] was analyzed to determine potential revenue to the City from the Project through taxes and fees. The budget is composed of seven major taxes and six major categories of fees and intergovernmental transfers. Based on the analysis of the City's budget it was concluded that the following recurring taxes may be impacted by the Project:

- Sales tax;
- Utility users tax;
- Property taxes;
- Business gross receipts tax;
- Franchise fee; and
- Property tax in-lieu of vehicle license fee.

Sales tax includes ongoing effective sales tax on increased earnings as well as the one-time potential sales tax gains for the materials involved in the development of the property.

This approach accounts for 98% of taxes and 77% of all General Funds, including fees, fines and government transfers. It is believed that the taxes, fees, fines and transfers excluded from the analysis are exogenous to the construction and operation of the facility. See Table B.1 below for more information.

[14] Financial & Management Services Department: City of Moreno Valley. "City of Moreno Valley Fiscal Year 2015/16 – 2016/17 Adopted Budget." 2015. Accessed May 6, 2016. http://www.moreno-valley.ca.us/city_hall/departments/fin-man-serv/fin-pdf/budg-15-16-16-17/adopt-budget15-16-16-17.pdf.

Table B.1

City Budget Taxes and Fees

City of Moreno Valley Budget	FY 2016/17 Adopted	Study Scope	
		One-Time	Recurring
Taxes:			
Sales Tax	$20,486,866	XX	XX
Property Tax	$12,736,197	--	XX
Property Tax In-Lieu of VLF	$16,597,580	--	XX
Utility Users Tax	$16,092,542	--	XX
Franchise Fees	$6,069,018	--	XX
Business Gross Receipts Tax	$1,778,000	--	XX
Transient Occupancy Tax	$1,105,650	--	--
Other Taxes	$500,000	--	--
Fees & Intergovernmental Transfers:			
Charges for Services	$10,971,363	--	--
Use of Money & Property	$3,469,962	--	--
Licenses & Permits	$2,126,877	--	--
Fines & Forfeitures	$629,073	--	--
Intergovernmental	$215,000	--	--
Transfers In	$2,547,650	--	--
Miscellaneous	$103,400	--	--
Total Revenue Budget	$95,429,178	--	--

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One-Time Sales Tax

One-time sales tax revenue is composed of two components:

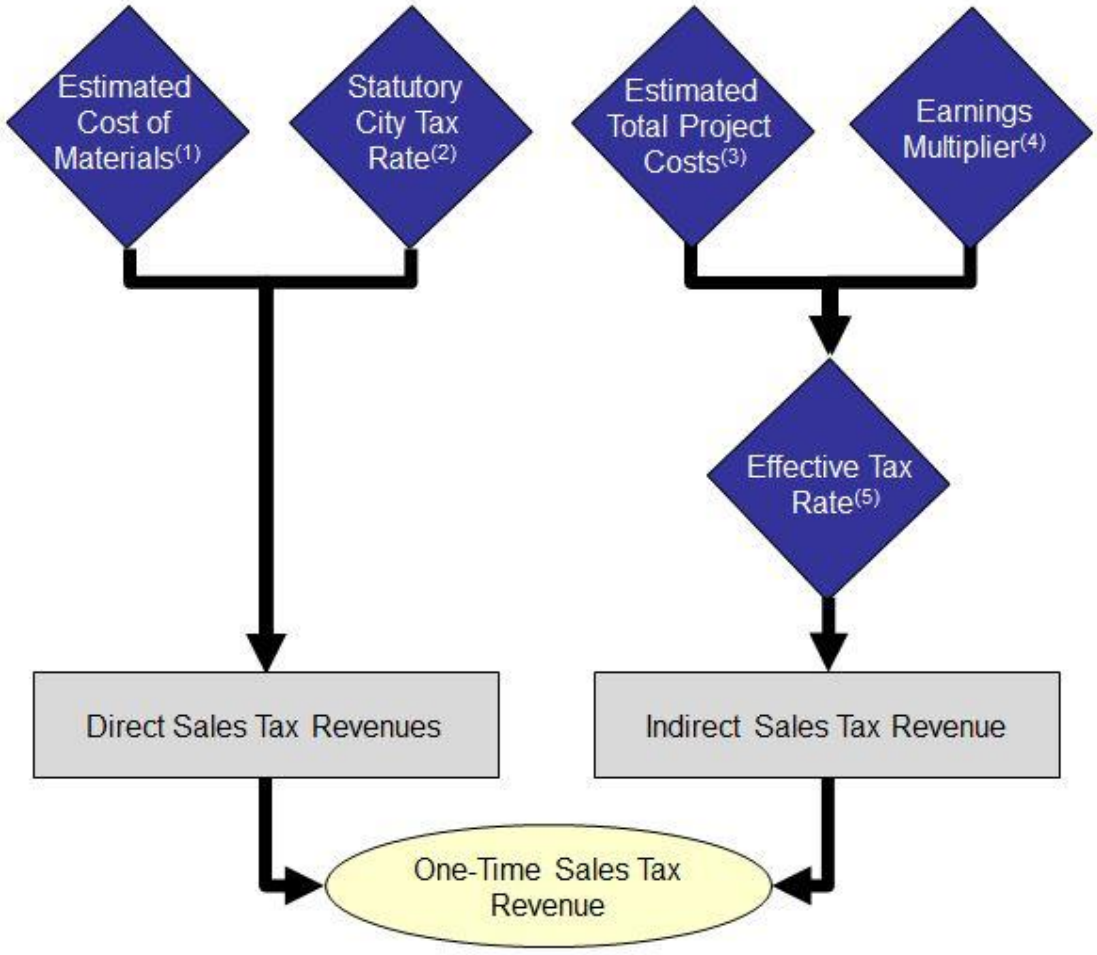
- Direct sales tax revenues from the cost of materials during construction; and
- Indirect sales tax revenue from the increase in household earnings.

Direct sales tax revenues are found by factoring the cost of materials estimated at 40% of the total construction cost, per industry standards,[15] [16] by the statutory city tax rate as listed in the Adopted Budget 2016-17.[17] The sales tax rate in Riverside County is 8.0%, of which Moreno Valley receives 1% from the California Board of Equalization (BOE) for transactions occurring within the City. Indirect sales tax revenue on earnings is found by first factoring the total construction costs as provided by the applicant with the earnings multiplier produced by the U.S. Bureau of Economic Analysis (BEA)[18] in order to find the increase in household earnings resulting from construction of the Project. Those earnings are then factored by the effective sales tax rate[19] to find the one-time indirect sales tax revenue. See Flowchart B.1 below for a graphical representation for this approach.

[15] Construction Labor Market Analyzer.
[16] Hedley.
[17] City Budget
[18] U.S. Bureau of Economic Analysis.
[19] See "Effective Sales Tax Calculation" at the end of this Appendix (Appendix B – Tax Revenue Scope and Methodology).

Flowchart B.1

Sales Tax Methodology



Notes

(1) Cost of materials estimated at 40% of total construction costs as provided by the applicant per industry standards.[20] [21]

(2) Statutory City tax rate is 1% based on information provided in City of Moreno Valley, Adopted Budget Fiscal Year 2015-16, Fiscal Year 2016-17.[22]

(3) Total construction costs estimated to be $21.5 million as provided by the applicant.

[20] Construction Labor Market Analyzer.
[21] Hedley.
[22] Financial & Management Services Department, "…Adopted Budget."

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(4) Earnings regional multipliers (RIMS II) for Riverside County produced by the U.S. Bureau of Economic Analysis.[23]

(5) See "Effective Sales Tax Calculation" at the end of Appendix B – Tax Revenue Scope and Methodology for methodology.

[23] U.S. Bureau of Economic Analysis.

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On-Going Sales Tax

On-going sales tax revenue is composed of two components:

- Local sales tax revenue from business operations; and
- Induced household earnings sales tax revenue.

Local sales tax revenue from business operations represents the tax revenue collected from supply expenditures. Due to the business nature of the three industries in the Project it is assumed that no other sales tax will be collected outside of supply expenditures. This approach preserves a conservative estimate of City revenues. For the warehouse and manufacturing units the local sales tax revenue is calculated by first factoring the estimated supply spend per square foot ($27.78), as found in a 2012 BizCost report,[24] by the total square feet in each unit and the local spend retention rate, which is assumed at 50% as the actual rate will depend on what goods are sold and the tenant company policy which are both currently unknown. The result is the local supply spend, which is then factored by the statutory sales tax rate as listed in the Adopted Budget 2016-17[25] to find the local sales tax revenue. For the Office unit the local sales tax revenue is calculated by first factoring the estimated supply spend per employee ($1,069), as found in a 2014 OPI report,[26] by the projected number of direct employees in each scenario and the same local spend retention rate. That amount is then factored by the statutory sales tax rate.

Indirect household earnings sales tax revenue is found by first factoring the total operation revenue as earlier estimated (see “One-Time Sales Tax” in Appendix B – Tax Revenue Scope & Methodology) with the earnings multiplier produced by the U.S. Bureau of Economic Analysis

[24] BizCosts. Comparative Distribution Warehousing Operating Costs. Princeton, NJ: The Boyd Company, 2012.

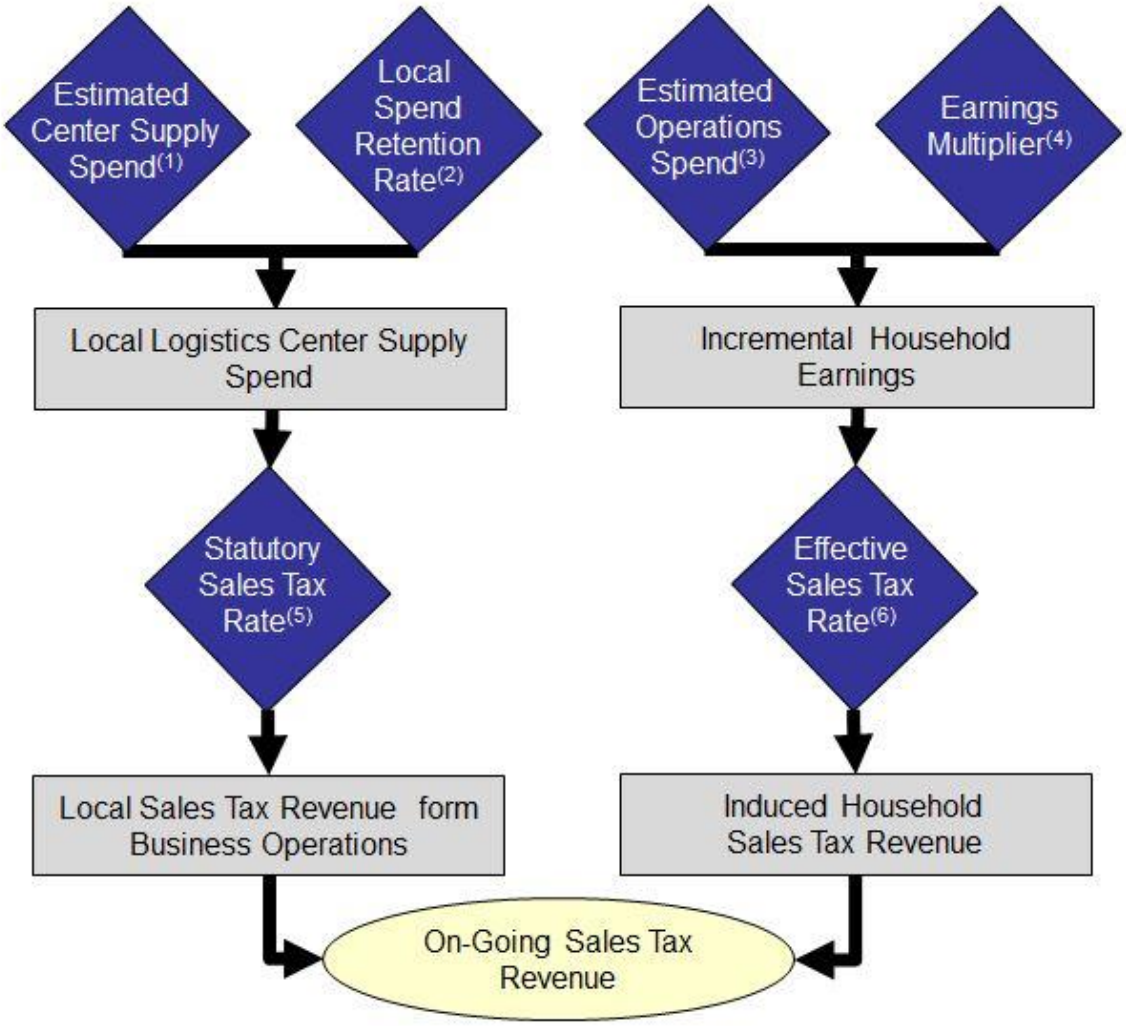
[25] Financial & Management Services Department, “…Adopted Budget.”

[26] Jack Francis, "United Stationers: Office supply spend across business size" OPI. June 17, 2014. https://www.opi.net/business/wholesalers/united-stationers-office-supply-spend-across-business-size/.

(BEA)[27] in order to find the increase in household earnings resulting from the Project's operations. Those earnings are then factored by the effective sales tax rate[28] to find the induced household earnings sales tax revenue. See Flowchart B.2 below for a graphical representation for this approach.

Flowchart B.2

On-Going Sales Tax Methodology



[27] U.S. Bureau of Economic Analysis.

[28] See "Effective Sales Tax Calculation" at the end of this Appendix (Appendix B – Tax Revenue Scope and Methodology).

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Notes

(1) Project supply spend estimated to be $27.78 per square foot for the warehouse and manufacturing units[29] and $1,069 per employee for the office unit.[30]

(2) Local spend retention rate assumed to be 50% of total spend.

(3) Operations spend as determined by estimated revenue of the Project. See "One-Time Sales Tax" in Appendix B – Tax revenue Scope & Methodology for methodology.

(4) Earnings regional multipliers (RIMS II) for Riverside County produced by the U.S. Bureau of Economic Analysis.[31]

(5) Statutory City tax rate is 1% based on information provided in City of Moreno Valley, Adopted Budget Fiscal Year 2015-16, Fiscal Year 2016-17.[32]

(6) See "Effective Sales Tax Calculation" at the end of Appendix B – Tax Revenue Scope and Methodology for methodology.

[29] BizCosts.
[30] Francis.
[31] U.S. Bureau of Economic Analysis.
[32] Financial & Management Services Department, "…Adopted Budget."

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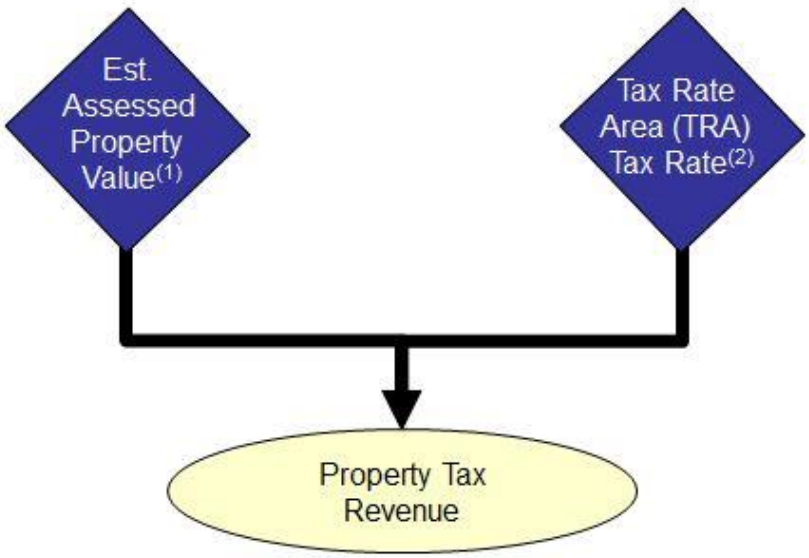
Property Tax

Moreno Valley property owners pay a basic tax equal to 1% of the assessed value of real property. Based on the Tax Rate Area (TRA) a property may be located in, the City's General Fund receives approximately 11% of these 1% tax payments, with the larger shares going to local schools, community colleges and Riverside County. Property tax revenue for the Project is found by factoring the assessed property value as provided by the applicant, taking into account the 2% growth in value per year, by the TRA tax rate of 1%[33] and again by 11% to represent the amount received by the City's General Fund.[34] See Flowchart B.3 below for a graphical representation of this approach.

Flowchart B.3

Property Tax Methodology



[33] Auditor Controller, County of Riverside, "Tax Rates by Tax Rate Areas (2015-16)," accessed May 6, 2016, http://www.auditorcontroller.org/Portals/0/Documents/about_us/division/Proptax/AUCB940-DISTtax.pdf.

[34] Financial & Management Services Department, "…Adopted Budget."

Notes

(1) Estimated assessed property value provided by the applicant.

(2) Tax rate for the TRA is 1.09210% as provided by the Riverside County Tax Assessor's Office.[35]

[35] Auditor Controller, "Tax Rates…"

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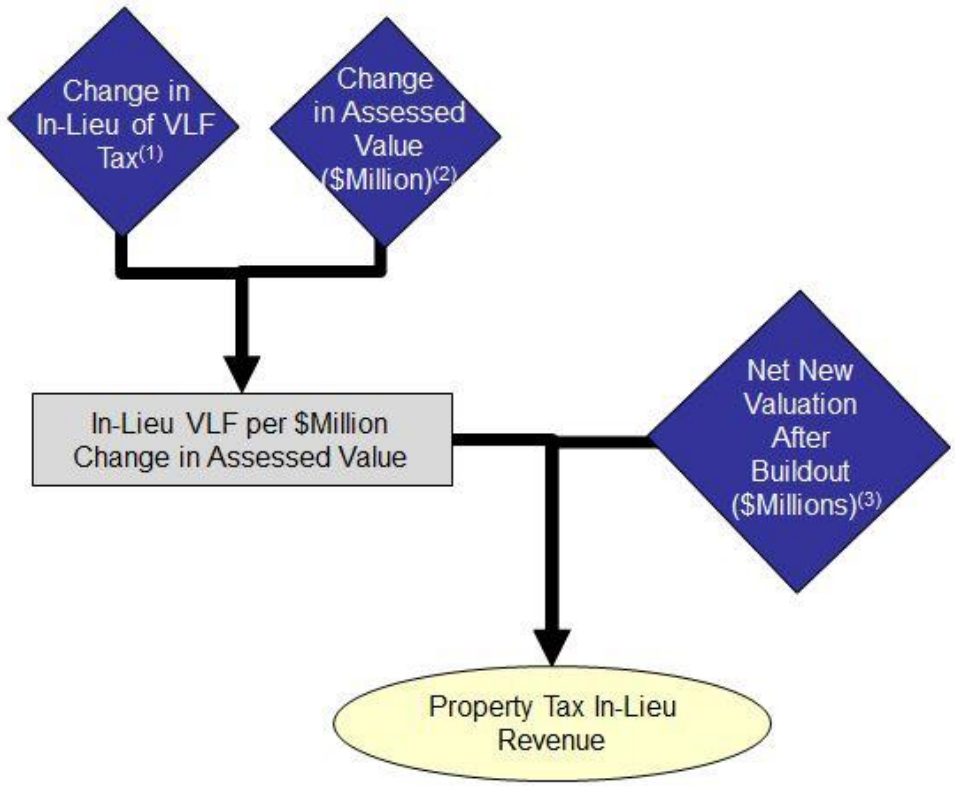
Property Tax In-Lieu

Per California Tax and Revenue and Taxation Code 97.70, the City General Fund receives property tax in lieu of Vehicle License Fee based on the change in the City's gross assessed valuation of taxable property for new developments. See Flowchart B.4 below for a graphical representation of this approach.

Flowchart B.4

Property Tax In-Lieu Methodology



Notes

(1) Change in In-Lieu of VLF revenues between Fiscal Year (FY) 2004-05[36] and FY 2016-

[36] Finance Department, Moreno Valley City Hall. "City of Moreno Valley, California, Comprehensive Annual Financial Report for Fiscal Year Ended June 30, 2005." (2005). Accessed May 12, 2016. http://www.moreno-valley.ca.us/city_hall/departments/fin-man-serv/fin-pdf/mv2005cafr0605.pdf.

17.[37]

(2) Change in the City of Moreno Valley total assessed property value between FY 2004-05[38] and FY 2016-17.[39]

(3) New net valuation after buildout as provided by the applicant.

[37]Financial & Management Services Department, "…Adopted Budget."

[38] Gary L. Orso, "City of Riverside, Assessor-County Clerk-Recorder 2004-2005 Annual Report." (2005). Accessed May 11, 2016. www.asrclkrec.com.

[39] Riverside County Assessor, "Assessed Value for Cities 2016/2018," accessed May 9, 2016, www.asrclkrec.com/.

Attachment: Exhibit C - To Resolution Statement Overriding Considerations [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-

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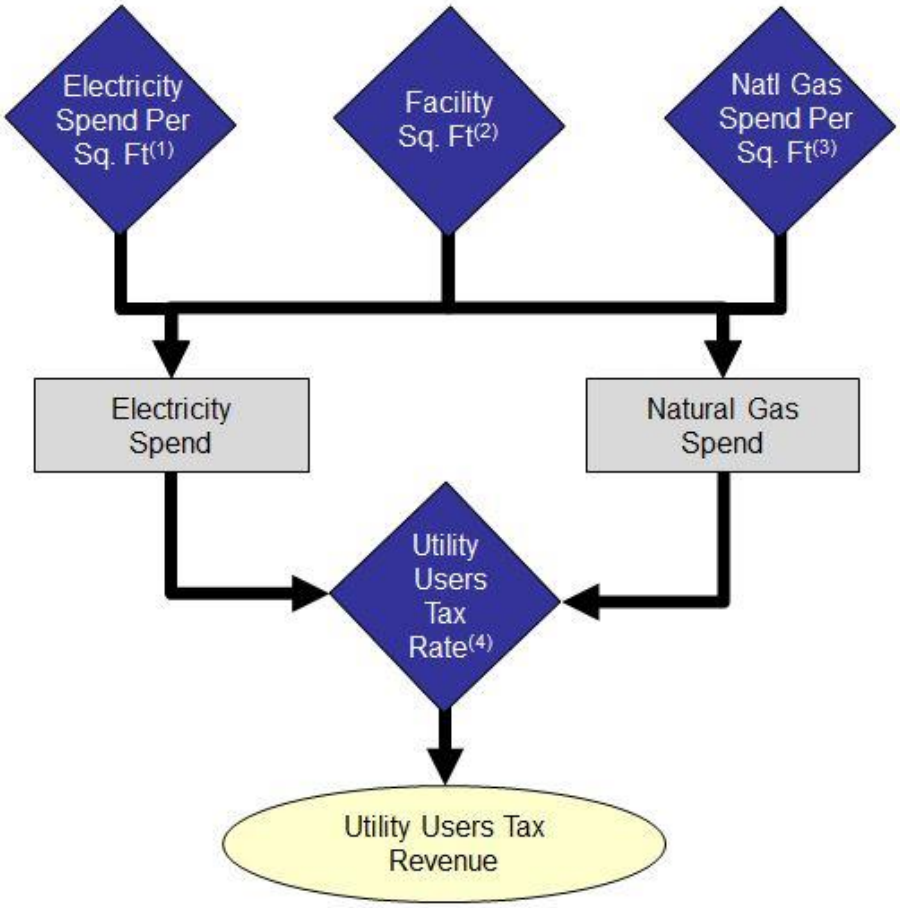
Utility Users Tax

Utility users tax (UUT) is a 5.75% charge on all utility activity in the City of Moreno Valley. The tax is assessed on electricity, energy, water, cable, and wireless and telephone charges. In order to preserve a conservative approach only the electricity and natural gas components were included in this analysis. To find the UUT revenue the electricity and natural gas spend per square foot for the warehouse and manufacturing units ($3.24)[40] is factored by the total square footage of those units, as provided by the applicant. The revenue for the office unit is calculated by factoring the utility spend per square foot ($2.12)[41] by the total square footage of that unit. Then both the electricity and natural gas spend is factored by the UUT rate to find the total revenue. See Flowchart B.5 below for a graphical representation of this approach.

[40] BizCosts.
[41] BOMA International, Inland Empire January – February 2014, EER 2-year control sample. www.boma.org.

Flowchart B.5

Utility Tax Methodology



Notes

(1) Electricity costs per square foot for Riverside and San Bernardino warehouse facilities as provided by the BizCosts[42] report and for office facilities as provided by BOMA.[43]

(2) Facility square footage as provided by the applicant.

(3) Natural gas costs per square foot for Riverside and San Bernardino warehouse facilities as provided by the BizCosts report and for office facilities as provided by BOMA.

(4) Utility users tax rate as provided by the Adopted Budget 2016-17.[44]

[42] BizCosts
[43] BOMA.

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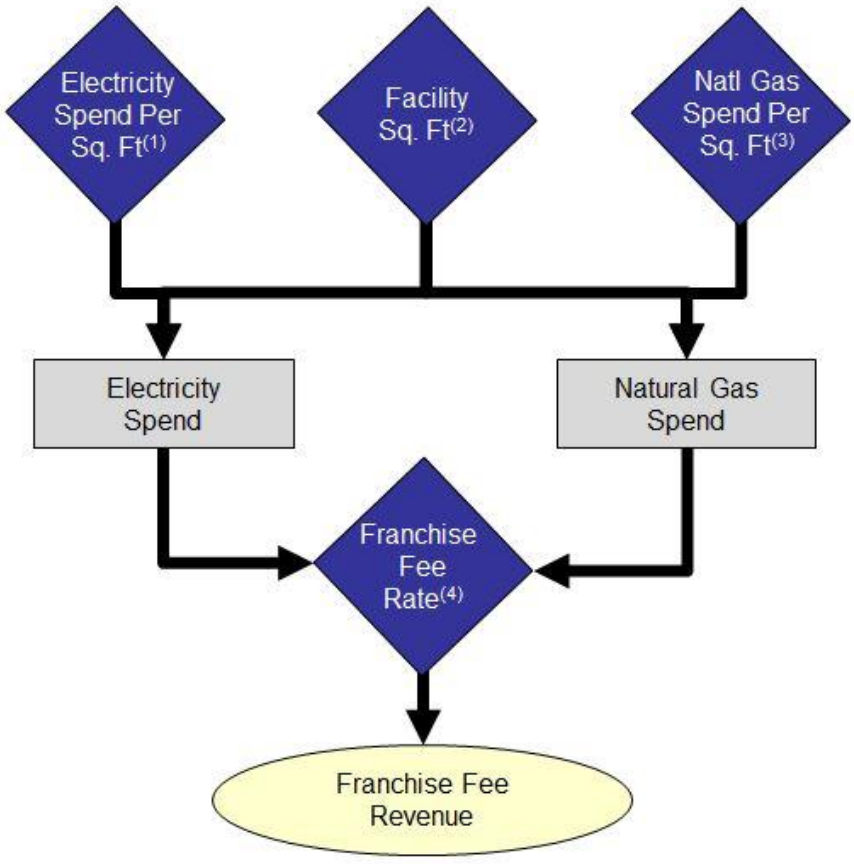
Franchise Fee

Franchise fee revenue consists of a tax on five franchise operations in the City of Moreno Valley – electric, natural gas, cable, television, and refuse. In order to preserve a conservative approach only the electricity and natural gas components are included in this analysis. To find the franchise fee revenue the electricity and natural gas spend per square foot, as detailed in the previous section, is factored by the total square footage of the Project, as provided by the applicant. Then, both the electricity and natural gas spend is factored by the franchise fee rate to find the total revenue. See Flowchart B.5 below for a graphical representation of this approach.

Flowchart B.6

Franchise Fee Methodology



[44] Financial & Management Services Department, "…Adopted Budget."

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Notes

(1) Electricity costs per square foot for Riverside and San Bernardino warehouse facilities as provided by the BizCosts[45] report and for office facilities as provided by BOMA.[46]

(2) Facility square footage as provided by the applicant.

(3) Natural gas costs per square foot for Riverside and San Bernardino warehouse facilities as provided by the BizCosts report and for office facilities as provided by BOMA.

(4) The franchise fee rate for both electric and natural gas is equal to 1% of gross annual revenues.[47]

[45] BizCosts
[46] BOMA.
[47] Financial & Management Services Department, "…Adopted Budget."

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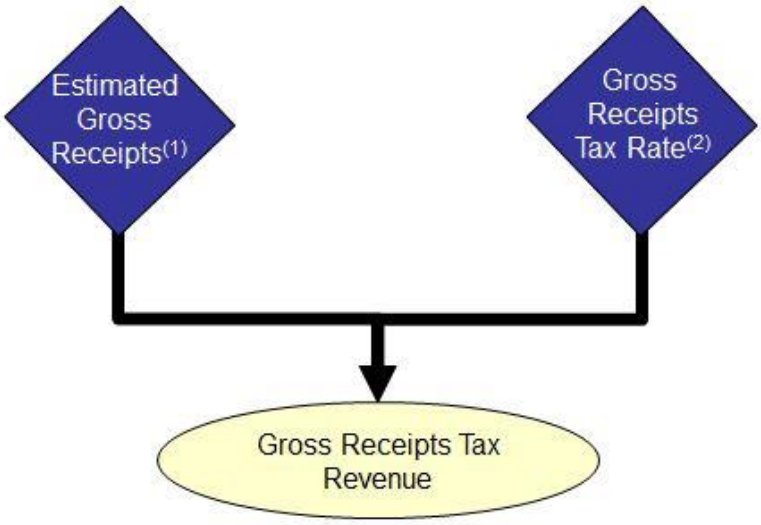
Business Gross Tax

The City of Moreno Valley imposes a gross receipts tax for warehousing and manufacturing establishments in the amount of $0.25 per $1,000 of gross receipts.[48] Gross receipts are assumed to be equivalent to the estimated revenue of the Project. To find the gross receipts tax revenue the estimated gross receipts is factored by the gross receipts tax rate. See Flowchart B.7 below for a graphical representation of this approach.

Flowchart B.7

Business Gross Tax Methodology



Notes

(1) Gross receipts are assumed to be equivalent to the estimated revenue of the Project.

(2) Gross receipts tax rate is $0.25 per $1,000, or 0.025%.[49]

[48] City of Moreno Valley. "Business License Categories and Application Fees." (2016). Accessed May 10, 2016. http://www.moreno-valley.ca.us/edd/pdfs/BusLicCategories-Fees.pdf.

[49] Ibid.

Effective Sales Tax Calculation

The effective sales tax represents the amount of additional sales taxes expected to be paid with any increase in household earnings. The effective tax rate is the ratio that can be factored by any increase in earnings to find that expected increase. The formula used to calculate the effective tax rate is the total City sales tax revenue for a particular year divided by the total income of City residents for the same year. The total income of City residents is calculated by factoring the average per capita income by the City population.

In order to produce an effective sales tax rate for this study, Andrew Chang & Company first calculated an estimated population for the City of Moreno Valley for 2017 based on average population growth between 2010 and 2014. Next, an estimated per capita income for 2017 is calculated based on the California Price Index (CPI) growth between 2014 and 2016. This figure is factored with the estimated population to find the total income of City residents for 2017. The City sales tax revenue, as provided by the Adopted Budget 2016-17,[50] is divided by the total income of City residents to produce an effective sales tax rate for 2017. See the equation below and the following Table B.2 for data sources and additional information.

$$\frac{\text{City Sales Tax Revenue Projections FY 2016/17}}{\text{Est. 2017 Per Capita Income X Est. 2017 City Population}} = \frac{\$20,486,866}{\$3,982,312,116} = 0.51\%$$

[50] Financial & Management Services Department, "…Adopted Budget."

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Table B.2

Effective Sales Tax Calculation

Element	Value	Source/Notes
City of Moreno Valley population census (April 2010)	193,365	http://www.census.gov/quickfacts/table/POP010210/0649270, extracted on May 5, 2016
City of Moreno Valley population estimate (July 2014)	202,976	http://www.census.gov/quickfacts/table/POP010210/0649270, extracted on May 5, 2016
City of Moreno Valley population estimate (July 2017)	210,637	Andrew Chang & Company estimate based on average population growth between 2010 and 2014
Consumer Price Index (2014)	246.055	California Department of Finance
Consumer Price Index (2016)	255.408	California Department of Finance
Per capita income ($2014)	$17,874	http://www.census.gov/quickfacts/table/POP010210/0649270, extracted on May 5, 2016
Estimated per capita income ($2017)	$18,906	Andrew Chang & Company estimate based on CPI growth between 2014 and 2016
City of Moreno Valley Sales Tax Revenue Projections FY 2016/17	$20,486,866	City of Moreno Valley, Adopted Budget Fiscal Year 2015-16, Fiscal Year 2016-17, p. xvii

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Appendix C – General Fund Cost Analysis Scope & Methodology

Scope

The 2016-17 Adopted Budget for the City of Moreno Valley[51] was analyzed to determine potential costs to the City from the Project. The City is projected to spend $94 million in General Fund expenses during the current fiscal year. The budget is composed of 62 expense items grouped here (see Table C.1 below) into nine categories:

- Fire;
- City Police;
- Mall Police & Emergency/Volunteer Services;
- Public Works – Street Maintenance;
- Public Works – All Other;
- Finance and Administration;
- Development;
- Communication; and
- Other.

All expenses appear to be recurring expenses rather than one-time. The scope includes all expense items directly impacted by the Project, namely Fire and City Police. All other expense items are considered to be not directly impacted or not impacted at all by the Project. Typically speaking these costs come from the applicant. However, in order to preserve a conservative figure, the approach assumes the costs will be absorbed by the City. This approach accounts for 63% of all General Fund expenses. See Table C.1 below for more information.

[51] Financial & Management Services Department, "…Adopted Budget."

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Table C.1

City Budget Expenses

City of Moreno Valley Budget	FY 2016/17 Adopted	Study Scope	
		One-Time	Recurring
City Police	$41,567,317	--	XX
Fire	$18,378,935	--	XX
Mall Police & Emergency/Volunteer Services	$828,136	--	--
Public Works – Street Maintenance	$697,822	--	--
Public Works – All Other	$2,508,707	--	--
Finance and Administration	$9,282,318	--	--
Development	$8,054,890	--	--
Communication	$2,004,847	--	--
Other	$11,088,061	--	--
Total Expense Budget	$94,411,033	--	--

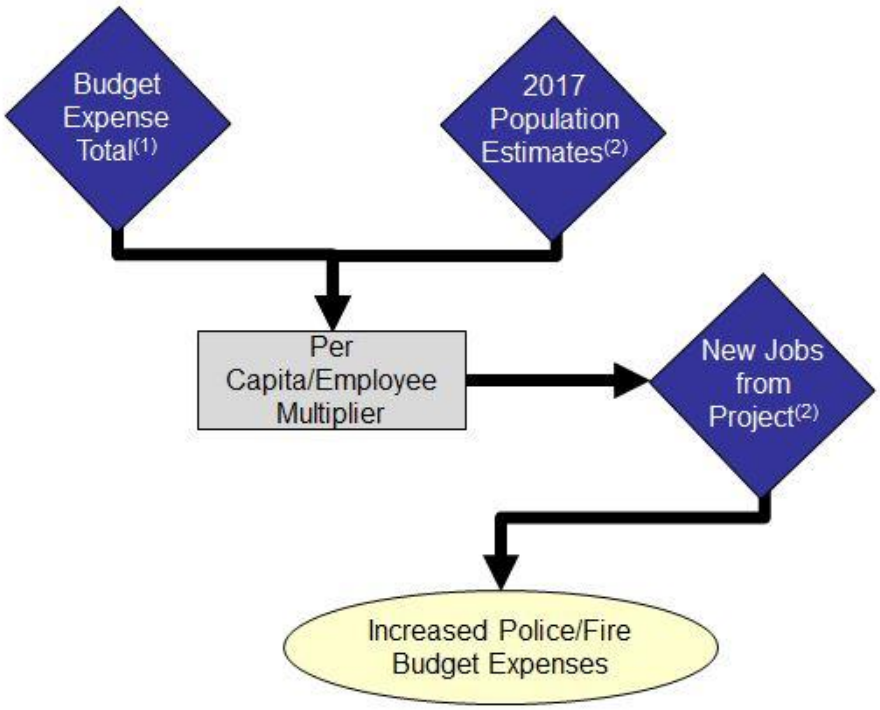
Increased General Fund expenses for City Police and Fire are calculated using the same methodology. The total budget expense for each, as provided by the Adopted Budget 2016-17,[52] is divided by the 2017 population estimates produced by Andrew Chang & Company[53] to find the per capita/employee multiplier, i.e. the cost of City Police and Fire services per person. The per capita/employee multiplier for both City Police and Fire is then factored by the total new jobs (direct and indirect) created by the Project to find the total increase in City Police and Fire services resulting from the Project. This approach assumes a 1:1 ratio for capita to employee,

[52] Financial & Management Services Department, "…Adopted Budget."
[53] See "Effective Sales Tax Calculation" in Appendix B – Tax Revenue Scope & Methodology for methodology.

which avoids additional assumptions and leaves the least room for error. See Flowchart C.1 below for a graphical representation of this approach.

Flowchart C.1

City Police & Fire Methodology



Notes

(1) Budget expense for City Police and Fire services as provided by the Adopted Budget 2016-17.[54]

(2) 2017 population estimate as produced by Andrew Chang & Company.[55]

(3) Total jobs created by the Project in the City of Moreno Valley, including direct and indirect jobs.

[54] Financial & Management Services Department, "…Adopted Budget."

[55] See "Effective Sales Tax Calculation" in Appendix B – Tax Revenue Scope & Methodology for methodology.

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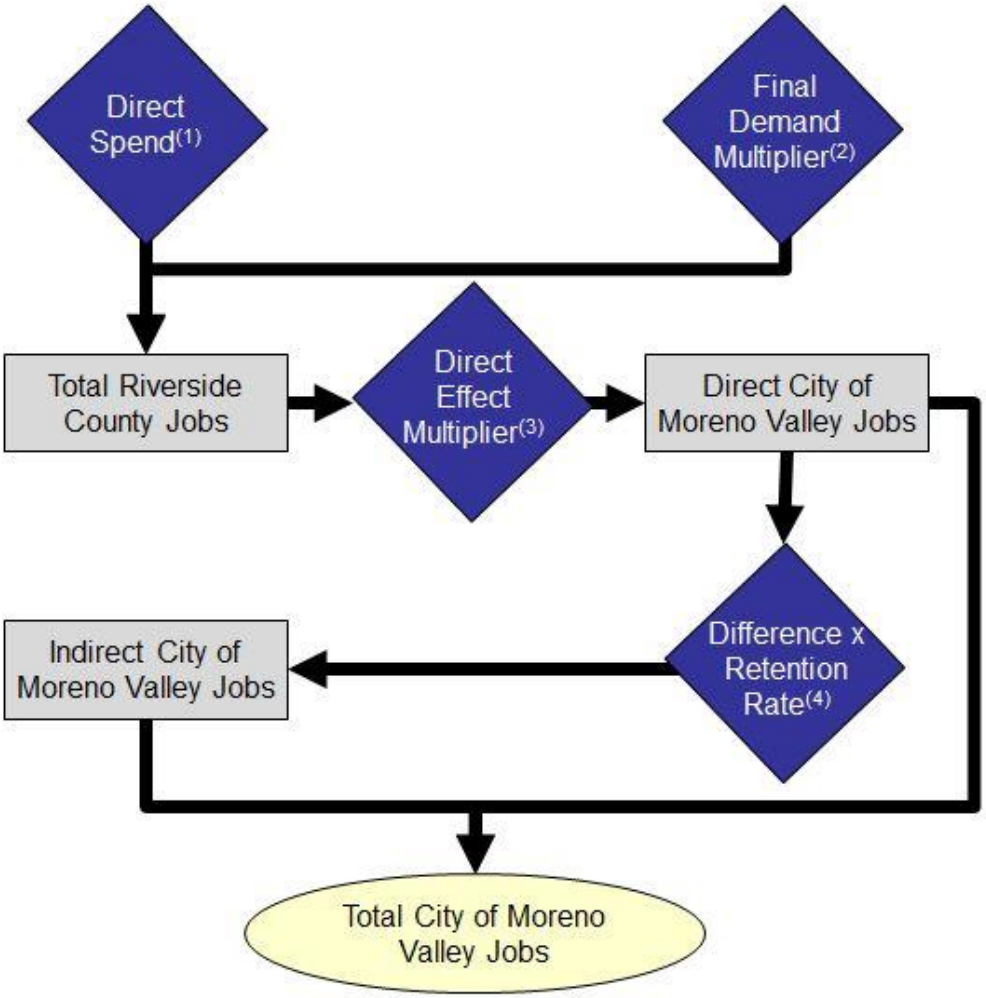
Appendix D – Employment Methodology

The employment model calculates all jobs (direct and indirect) created in the City of Moreno Valley as a result of the Project. The approach utilized in this study first calculates the total Riverside County jobs by factoring the direct spend[56] with the appropriate industry-specific final demand multiplier, as produced by the U.S. BEA.[57] The total jobs are then divided by the industry-specific direct effect multiplier[58] to find the direct jobs created in the Project. Next the indirect jobs within the City are found by factoring the difference in the total county jobs and the direct jobs (representing the indirect jobs to the entire county) by the City of Moreno Valley's retention rate (the ratio of employed labor force in the City over the employed labor force in the county as provided by California's Employment Development Department's Labor Market Information Division database).[59] The direct jobs and indirect jobs specific to the City are summed to provide the total jobs specific to the City of Moreno Valley. See Flowchart D.1 below for a graphical representation of this approach.

[56] See Appendix A – Direct Spend Methodology.
[57] U.S. Bureau of Economic Analysis.
[58] Ibid.
[59] Employment Development Department, "Riverside, San Bernardino, Ontario MSA."

Flowchart D.1

Employment Methodology



Notes

(1) Direct spend as calculated in Appendix A – Direct Spend Methodology.

(2) Final Demand employment regional multipliers (RIMS II) for Riverside County produced by the U.S. Bureau of Economic Analysis.[60]

(3) Direct Effect employment regional multipliers (RIMS II) for Riverside County produced by the U.S. Bureau of Economic Analysis.[61]

[60] U.S. Bureau of Economic Analysis.
[61] Ibid.

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(4) The difference between the total jobs and the direct jobs is factored by the retention rate, which is the total number of employees in the City of Moreno Valley over the total number of employees in Riverside County as provided by California's Employment Development Department's Labor Market Information Division database.[62]

[62] Employment Development Department, "Riverside, San Bernardino, Ontario MSA."

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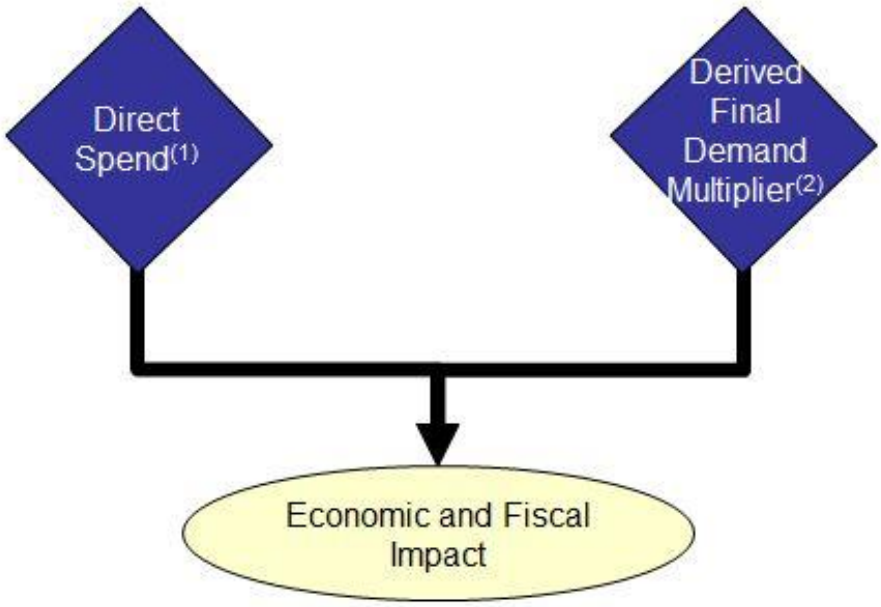
Appendix E – Earnings & Output Methodology

The economic and fiscal impact includes the total (direct and indirect) impact in increased household earnings and economic output to the City of Moreno Valley. The approach utilized in this study factored the direct spend[63] of the project with the correlating derived final demand multiplier (i.e. industry specific multipliers for construction, warehousing, manufacturing, and office) for earnings and output to find the economic and fiscal impact. Each derived final demand multiplier is calculated by dividing the total number (direct and indirect) of new jobs created in the City of Moreno Valley by the total number of new jobs created in Riverside County for all utilized industries[64] with the assumption that the amount of jobs retained in the City will reflect the amount of earnings and output retained in the City.

Flowchart E.1

Earnings & Output Methodology



[63] See Appendix A – Direct Spend Methodology.
[64] See Appendix D – Employment Methodology.

Notes

(1) Direct spend as calculated in Appendix A – Direct Spend Methodology.

(2) The derived final demand multipliers are calculated by dividing the total number of jobs created by in the City of Moreno Valley as a result of the Project by the total number of jobs created in Riverside County as a result of the Project.

Appendix F – Multipliers

This study utilizes the most recent regional RIMS II multipliers produced by the U.S. Bureau of Economic Analysis for Riverside County in order to determine the change in output, earnings, and employment as a result of the proposed Indian Street Commerce Center Project. The industry-specific multipliers utilized for this study are listed below in Table F.1.

Derived final demand multipliers were created for the City of Moreno Valley in order to calculate the total impact (direct and indirect) specific to the City. These multipliers are calculated by dividing the total number of direct and indirect jobs created in the City of Moreno Valley by the total number of jobs created in Riverside County with the assumption that the portion of jobs generated within the City by the Project would reflect the portion of output and earnings generated within the City. See Table F.1 below for additional detail.

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Table F.1

Multipliers

Low Scenario	Riverside County					City of Moreno Valley
	Final Demand			Direct Effect		Derived Final Demand
Industry	Output / Dollars	Earnings / Dollars	Employment / Jobs	Earnings / Dollars	Employment / Jobs	Retention Rate
Construction	1.7429	0.4355	9.1186	1.6323	1.8726	0.575
Warehousing and storage	1.7063	0.4163	10.9144	1.6556	1.6473	0.642
Apparel and leather and allied product manufacturing	1.5468	0.3828	11.1472	1.5449	1.4227	0.729
Administrative and support services	1.6503	0.5352	15.9691	1.4301	1.3533	0.762
Median Scenario	**Riverside County**					**City of Moreno Valley**
	Final Demand			Direct Effect		Derived Final Demand
Industry	Output / Dollars	Earnings / Dollars	Employment / Jobs	Earnings / Dollars	Employment / Jobs	Retention Rate
Construction	1.7429	0.4355	9.1186	1.6323	1.8726	0.575
Warehousing and storage	1.7063	0.4163	10.9144	1.6556	1.6473	0.642
Machinery manufacturing	1.598	0.3053	5.4954	1.7467	2.1195	0.518
Professional, scientific, and technical services	1.6814	0.5337	9.7208	1.4669	1.828	0.587
High Scenario	**Riverside County**					**City of Moreno Valley**
	Final Demand			Direct Effect		Derived Final Demand
Industry	Output / Dollars	Earnings / Dollars	Employment / Jobs	Earnings / Dollars	Employment / Jobs	Retention Rate
Construction	1.7429	0.4355	9.1186	1.6323	1.8726	0.575
Warehousing and storage	1.7063	0.4163	10.9144	1.6556	1.6473	0.642
Other transportation equipment manufacturing	1.5372	0.2614	4.2437	1.8052	2.5887	0.440
Management of companies and enterprises	1.6211	0.4876	7.0054	1.4568	2.1898	0.505

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Appendix G – Bibliography

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Exhibit D

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
PA16-0002 PLOT PLAN
APN: 316-210-019, 020, 057, 077

APPROVAL DATE: **February 7, 2017**
EXPIRATION DATE: **February 7, 2020**

_X_ Planning (P), Building (B), Economic Development (ED)
_X_ Fire Prevention Bureau (F)
_X_ Public Works, Land Development (LD)
_X_ Public Works, Special Districts (SD)
_X_ Public Works – Transportation Engineering (TE)
_X_ Moreno Valley Utilities

COMMUNITY DEVELOPMENT DEPARTMENT

Planning Division

For questions regarding any Planning condition of approval, please contact the Planning Division at (951) 413-3206.

GENERAL CONDITIONS

P1. This approval shall expire three years after the approval date of this project unless used or extended as provided for by the City of Moreno Valley Municipal Code; otherwise it shall become null and void and of no effect whatsoever. (MC 9.02.230)

P2. This project is located within Moreno Valley Industrial Area Specific Plan 208. The provisions of the specific plan, the design manual, their subsequent amendments, and the Conditions of Approval shall prevail unless modified herein. (MC 9.13)

P3. The site shall be developed in accordance with the approved plans on file in the

Timing Mechanisms for Conditions (see abbreviation at beginning of affected condition):

R - Map Recordation
GPA – Grading Plan Approval
BP - Building Permits
MR – Map Recordation
AOS – Acceptance of Streets
CP – Construction Permit
GP - Grading Permits
BF – Building Final
P - Any permit
MA – Map Approval
WP - Water Improvement Plans
IPA – Improvement Plan Approval
SI – Street Improvements

Governing Document (see abbreviation at the end of the affected condition):

GP - General Plan
MC - Municipal Code
Ord - Ordinance
Res - Resolution
UBC - Uniform Building Code
SBM - Subdivision Map Act
MC – Municipal Code
CEQA - California Environmental Quality Act
Ldscp - Landscape Development Guidelines and Specs
UFC - Uniform Fire Code

Attachment: Exhibit D to Resolution - Conditions of Approval [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

Community Development Department - Planning Division, the Municipal Code regulations, General Plan, and the conditions contained herein. Prior to any use of the project site or business activity being commenced thereon, all Conditions of Approval shall be completed to the satisfaction of the Planning Official. (MC 9.14.020)

P4. The developer, or the developer's successor-in-interest, shall be responsible for maintaining any undeveloped portion of the site in a manner that provides for the control of weeds, erosion and dust. (MC 9.02.030)

P5. All landscaped areas shall be maintained in a healthy and thriving condition, free from weeds, trash and debris. (MC 9.02.030)

P6. Any signs indicated on the submitted plans are not included with this approval. Any signs, whether permanent (e.g. wall, monument) or temporary (e.g. banner, flag), require separate application and approval by the Planning Division. No signs are permitted in the public right of way. (MC 9.12)

P7. All site plans, grading plans, landscape and irrigation plans, fence/wall plans, lighting plans and street improvement plans shall be coordinated for consistency with this approval.

Special Conditions

P8. This Plot Plan approval is for an approximately 446,350 square foot industrial warehouse building to be located on approximately 19.64 acres in the Moreno Valley Industrial Area Specific Plan 208 to include a maximum of 53 loading bays and required parking for autos and truck trailers per the approved plans. A change or modification shall require separate approval.

P9. Two site plans are approved with this application, the warehouse/distribution use and the manufacturing use, which will be determined once an occupant is selected. The overall site will be developed identical except for the auto parking area within the internal truck area. The Tenant Improvement process through the Building and Safety Division will require a detailed Letter of Intent to ensure the parking area is increased should a manufacturing use be desired. The following auto parking spaces are required:
A. Warehouse/distribution use, 207 auto parking spaces.
B. Manufacturing uses, 323 auto parking spaces.

P10. Operational noise impacts shall be equal to or less than 65 Ldn at the property line per the Moreno Valley Industrial Area Plan. Loading or unloading activities shall be conducted from the truck bays or designated loading areas.

Attachment: Exhibit D to Resolution - Conditions of Approval [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

P11. Prior to the start of any construction, temporary security fencing shall be erected. The fencing shall be a minimum of six (6) feet high with locking, gated access and shall remain through the duration of construction. Security shall remain in place until the project is completed or the above conditions no longer exist. (Security fencing is required if there is: construction, unsecured structures, unenclosed storage of materials and/or equipment, and/or the condition of the site constitutes a public hazard).

P12. Mitigation measures contained in the Mitigation Monitoring Program approved with the project shall be implemented as provided therein. A mitigation monitoring fee, as provided by City ordinance, shall be paid by the applicant prior to the submittal of any grading or building plans. No City permit or approval shall be issued until such fee is paid. (CEQA)

P13. Prior to submittal of any grading plans or building plans, the final Conditions of Approval and the Mitigation Measures as provided for in the project approval and the Environmental Impact Report (P16-003), shall be placed on the plans in their entirety. As stated in the Mitigation Measures certain measures must be placed on a specific page of the grading or building plans.

Prior to Issuance of Grading Permits

P14. Prior to issuance of grading permits, the developer shall pay the applicable Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan mitigation fee. (Ord)

P15. Prior to approval of any grading permits, plans for any security gate system shall be submitted to and approved by to the Planning Division.

P16. If potential historic archaeological, or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61)) shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, prehistoric, or paleontological resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.

If human remains are discovered, no further disturbance shall occur until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California

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Native American Heritage Commission shall be notified within 5-days of the published finding to be given a reasonable opportunity to identify the "most likely descendant." The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).

P17. At least thirty days prior to issuance of any grading permit, the developer shall retain a qualified archaeologist, provide a letter identifying the name and qualifications of the archaeologist to the Planning Division for approval, to monitor all ground disturbing activities in an effort to identify any unknown archaeological resources and to evaluate and recommend appropriate actions for any archaeological deposits exposed by construction activity.

P18. Prior to the issuance of a grading permit, the Project applicant shall provide evidence to the City of Moreno Valley that a professional archaeological monitor has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities and that the monitor has the authority to temporarily halt and redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project archaeologist, with input from the Pechanga Tribe, shall prepare a Cultural Resources Monitoring Plan (CRMP) to document protocols for inadvertent finds, to determine potential protection measures from further damage and destruction for any identified archaeological resources(s)/tribal cultural resources (TCRs), outline the process for monitoring and for completion of the final Phase IV Monitoring Report. If any archaeological and/or TCRs are identified during monitoring, these will also be documented and addressed per standard archaeological protocols in the Phase IV report, with the exception of human remains which will be addressed per MM 4.8.6. The Project Archaeologist shall attend the pre-grading meeting with the City and contractors to explain and coordinate the requirements of the monitoring program.

P19. At least 30 days prior to the issuance of a grading permit the Applicant shall contact the Pechanga Band of Luiseno Indians to develop a Cultural Resources Treatment Agreement and shall provide evidence to the City of Moreno Valley that the professionally qualified Native American monitor(s) has been secured, and that the Tribe shall be allowed to monitor all mass grading and trenching activities. The Tribal representative(s) shall attend the pre-grading meeting with the City and contractors to explain and coordinate the requirements of the monitoring program.

P20. If, during mass grading and trenching activities, the Archaeological or Pechanga Monitors suspect that an archaeological resource and/or TCR may have been unearthed, the monitor identifying the potential resources, in consultation with the other monitor as appropriate, shall immediately halt and redirect grading

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operations in a 50-foot radius around the find to allow identification and evaluation of the suspected resource. The Native American monitor(s) or appropriate representative(s) and the archaeological monitor shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. The archaeological monitor and Pechanga monitor(s) or appropriate representative(s), the Project Applicant, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). All sacred sites, should they be encountered within the project area, shall be avoided and preserved as the preferred mitigation, if feasible.

P21. Prior to the issuance of any grading permit, the City shall verify that the following note is included on the Grading Plan:

"If any suspected archaeological resources are discovered during ground-disturbing activities and the archaeological monitor or Pechanga representatives are not present, the construction supervisor is obligated to halt work in a 50-foot radius around the find and call the project archaeologist and the Pechanga representatives to the site to assess the significance of the find."

P22. If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Corner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the Coroner. If the Riverside County Coroner determines the remains to be Native American, the California Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately notify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code §5097.98.

P23. Within thirty (30) days prior to any grading or other land disturbance, a pre-construction survey for Burrowing Owls shall be conducted pursuant to the established guidelines of Multiple Species Habitat Conservation Plan. The pre-construction survey shall be submitted to the Planning Division prior to any disturbance of the site and/or grading permit issuance.

P24. Prior to issuance of grading permits, the location of any proposed trash enclosures shall be included on the plans.

P25. Prior to the issuance of grading permits, a temporary project identification sign shall be erected on the site in a secure and visible manner. The sign shall be

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conspicuously posted at the site and remain in place until occupancy of the project. The sign shall include the following:

a. The name (if applicable) and address of the development.
b. The developer's name, address, and a 24-hour emergency telephone number.

P26. Prior to issuance of any grading permits, mitigation measures contained in the Mitigation Monitoring Program approved with this project shall be implemented as provided therein. A mitigation monitoring fee, as provided by City ordinance, shall be paid by the applicant prior to any site disturbance and/or Grading Plan submittal. No City permit or approval shall be issued until such fee is paid. (CEQA)

P27. Prior to issuance of any grading permits, all Conditions of Approval and Mitigation Measures shall be printed on the grading plans.

P28. Prior to the issuance of grading permits, decorative (e.g. colored/scored concrete or as approve by the Planning Official) pedestrian pathways across circulation aisles/paths shall be provided throughout the development to connect dwellings with open spaces and/or recreational uses or commercial/industrial buildings with open space and/or parking. and/or the public right-of-way. The pathways shall be shown on the precise grading plan. (GP Objective 46.8, DG)

P29. Prior to the issuance of grading permits, the site plan and grading plans shall show decorative hardscape (e.g. colored concrete, stamped concrete, pavers or as approved by the Planning Official) consistent and compatible with the design, color and materials of the proposed development for all driveway ingress/egress locations of the project.

P30. Prior to issuance of grading permits, the developer shall submit wall/fence plans to the Planning Division for review and approval as follows:

A. A 3 foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening.
B. Any proposed retaining walls shall also be decorative in nature, while the combination of retaining and other walls on top shall not exceed the height requirement.
C. Proposed screening walls for truck loading areas and required loading docks shall also include decorative walls with reveals and color combinations consistent with the building design/colors, with a height up to fourteen (14) feet to fully screen trucks and the truck storage and loading areas.
D. Walls and fences for visual screening are required when there are

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adjacent residential uses or residentially zone property. The height, placement and design will be based on a site specific review of the project. All walls are subject to the approval of the Planning Official. (DC 9.08.070)

PRIOR TO BUILDING PERMITS

P31. Prior to issuance of building permits, the Project archaeologist shall prepare a final Phase IV Monitoring Report as outlined in the CRMP, which shall be submitted to the City Planning Division, Pechanga Band of Luiseno Indians, and the Eastern Information Center at the University of California, Riverside. The report shall document project impacts to archaeological and tribal cultural resources, if any. All cultural material, excluding sacred, ceremonial, grave goods and human remains, collected during the grading monitoring program and from any previous archaeological studies or excavations on the project site shall be curated, as determined by the treatment plan, according to the current professional repository standards and many include the Pechanga Bands curatorial facility or the Western Science Center in Hemet, at the landowners discretion.

P32. Prior to issuance of building permits, the Planning division shall review and approve the location and method of enclosure or screening of transformer cabinets, commercial gas meters and back flow preventers as shown on the final working drawings. Location and screening shall comply with the following criteria: transformer cabinets and commercial gas meters shall not be located within required setbacks and shall be screened from public view either by architectural treatment or landscaping; multiple electrical meters shall be fully enclosed and incorporated into the overall architectural design of the building(s); back-flow preventers shall be screened by landscaping. (GP Objective 43.30, DG)

P33. Prior to issuance of building permits, screening details shall be addressed on the building plans for roof top equipment submitted for Planning Division review and approval through the building plan check process. All equipment shall be completely screened so as not to be visible from public view, and the screening shall be an integral part of the building.

P34. Prior to the issuance of building permits, proposed covered trash enclosure(s) shall be included in the building plans or the Building submittal of the Fence and Wall plans. The trash enclosure(s), including the roof materials, shall be compatible with the architecture, color and materials of the building(s) design. Trash enclosure areas shall include landscaping on three sides unless located within the truck loading area. (GP Objective 43.6, DG)

P35. Prior to or at building plan check submittal, two copies of a detailed, on-site,

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computer generated, point-by-point comparison lighting plan, including exterior building, parking lot, and landscaping lighting, shall be submitted to the Planning Division for review and approval prior to the issuance of a building permit. The lighting plan shall be generated on the plot plan and shall be integrated with the final landscape plan. The plan shall indicate the manufacturer's specifications for light fixtures used, shall include style, illumination, location, height and method of shielding per the City's Municipal Code requirements. After the third plan check review for lighting plans, an additional plan check fee will apply. (MC 9.08.100, 9.16.280)

P36. Prior to issuance of a building permit, the developer/property owner or developer's successor-in-interest shall pay all applicable impact fees due at permit issuance, including but not limited to Multi-species Habitat Conservation Plan (MSHCP) mitigation fees. (Ord)

P37. Prior to issuance of building permits, all Conditions of Approval and Mitigation Measures shall be printed on the Building plans.

P38. Prior to building final, the developer/owner or developer's/owner's successor-in-interest shall pay all applicable impact fees, including but not limited to Transportation Uniform Mitigation fees (TUMF), and the City's adopted Development Impact Fees. (Ord)

P39. Prior to issuance of any building permits, final landscaping and irrigation plans shall be submitted for review and approved by the Planning Division. After the third plan check review for landscape plans, an additional plan check fee shall apply. The plans shall be prepared in accordance with the City's Landscape Requirements and shall include:

a. A three (3) foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening.
b. Finger and end planters with required step outs and curbing shall be provided every 12 parking stalls as well as at the terminus of each aisle in the auto parking areas.
c. Diamond planters shall be provided every 3 parking stalls if double loaded
    i. parking is provided.
d. Drought tolerant landscape shall be used. No sod shall be installed
e. Street trees shall be provided every 40 feet on center in the right of way.
f. On-site trees shall be planted at an equivalent of one (1) tree per thirty (30) linear feet of the perimeter of a parking lot and per thirty linear feet of a building dimension for the portions of the building visible from a parking lot or right of way. Trees may be massed for pleasing aesthetic effects.
g. Enhanced landscaping shall be provided at all driveway entries.

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h. The review of all utility boxes, transformers etc. shall be coordinated to provide adequate screening from public view.
i. Landscaping on three sides of any trash enclosure (unless the enclosure
    i. is in the truck storage area).
j. All site perimeter and parking lot landscape and irrigation shall be installed prior to Building final.

P40. Prior to or at building plan check submittal, the elevation plans shall include decorative lighting sconces on the corner office areas and specifically on the east side of the building near the office areas. The lights shall be decorative but low shine to provide up-lighting and shadowing on the structures. Include drawings of the sconce details for each building within the elevation plans, approved by the Planning Division prior to building permit issuance.

P41. Prior to the issuance of building permits, the developer shall provide documentation that contact was made to the U.S. Postal Service to determine the appropriate type and location of mailboxes.

P42. **PRIOR TO BUILDING FINAL**

P43. P33. Prior to building final, Planning approved/stamped landscape plans shall be provided to the Community Development Department – Planning Division on a CD disk.

P44. Prior to building final, all required landscaping and irrigation shall be installed per plan, certified by the Landscape Architect and inspected by the Planning Division. (MC 9.03.040, MC 9.17).

P45. Prior to building final, all required and proposed fences and walls shall be constructed according to the approved plans on file in the Planning Division. (MC 9.080.070).

Building and Safety Division

B1. All new structures shall be designed in conformance to the latest design standards adopted by the State of California in the California Building Code, (CBC) Part 2, Title 24, California Code of Regulations including requirements for allowable area, occupancy separations, fire suppression systems, accessibility, etc. The current code edition is the 2013 CBC; however, the current code in effect at the time of submittal will be required.

B2. All new buildings 10,000 square feet and over, shall include building commissioning in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's

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project requirements (OPR). All requirements in The 2013 California Green Building Standards Code, sections 5.410.2 - 5.410.2.6 must be met.

B3. All remodeled structures shall be designed in conformance to the latest design standards adopted by the State of California in the California Building Code, (CBC) Part 2, Title 24, California Code of Regulations including requirements for allowable area, occupancy separations, fire suppression systems, accessibility, etc. The current code edition is the 2013 CBC.

B4. Prior to building plan check submittal, all new development, including residential second units, shall obtain a valid property address prior to permit application. Addresses can be obtained by contacting the Building Safety Division at 951.413.3350.

B5. The proposed project's occupancy shall be classified by the Building Official and must comply with exiting, occupancy separation(s) and minimum plumbing fixture requirements of the 2013 California Plumbing Code Table 4-1.

B6. Building plans submitted shall be signed and sealed by a California licensed design professional as required by the State Business and Professions Code.

B7. The proposed non-residential project shall comply with the latest Federal Law, Americans with Disabilities Act, and State Law, California Code of Regulations, Title 24, Chapter 11B for accessibility standards for the disabled including access to the site, exits, bathrooms, work spaces, etc.

B8. The proposed residential project (3 or more dwelling units) shall comply with the latest Federal Law, Americans with Disabilities Act, and State Law, California Code of Regulations, Title 24, Chapter 11A for accessibility standards for the disabled including access to the site, exits, kitchens, bathrooms, common spaces, pools/spas, etc.

B9. The proposed development is subject to the payment of required development fees as required by the City's current Fee Ordinance at the time a building application is submitted or prior to the issuance of permits as determined by the City.

B10. The proposed project is subject to approval by the Eastern Municipal Water District and all applicable fees and charges shall be paid prior to permit issuance. Contact the water district at 951.928.3777 for specific details.

B11. Construction hours shall be as follows: Monday through Friday (except for holidays which occur on weekdays), six a.m. to eight p.m.; weekends and holidays (as observed by the city and described in the Moreno Valley Municipal Code Chapter

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2.55), seven a.m. to eight p.m., unless written approval is first obtained from the Building Official or City Engineer. (MC 8.14.040E)

B12. Contact the Building Safety Division for permit application submittal requirements.

ECONOMIC DEVELOPMENT DEPARTMENT (EDD)

EDD1. New Moreno Valley businesses are encouraged to hire local residents.

EDD2. New Moreno Valley businesses may utilize the workforce recruitment services provided by the Moreno Valley Employment Resource Center ("ERC").

The ERC offers no cost assistance to businesses recruiting and training potential employees. Complimentary services include:

- Job Announcements
- Applicant testing / pre-screening
- Interviewing
- Job Fair support
- Training space

EDD3. New Moreno Valley businesses may work with the Economic Development Department to coordinate job recruitment fairs.

EDD4. New Moreno Valley businesses are encouraged to provide a job fair flyer and/or web announcement to the City in advance of job recruitments, so that the City can assist in publicizing these events.

EDD5. New Moreno Valley businesses may adopt a "First Source" approach to employee recruitment that gives notice of job openings to Moreno Valley residents for one week in advance of the public recruitment.

AIRPORT LAND USE COMMISSION (ALUC) ZAP1185MA16/ZAP1217MA16

1. Any outdoor lighting installed shall be hooded or shielded to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.

2. The following uses/activities are not included in the proposed project and shall be prohibited at this site:

   (a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a

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straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.

(b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.

(c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (Such uses include landscaping utilizing water features, aquaculture, production of cereal grains, sunflower, and row crops, composting operations, trash transfer stations that are open on one or more sides, recycling centers containing putrescible wastes, construction and demolition debris facilities, fly ash disposal, and incinerators.)

(d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.

(e) Children's schools, day care centers, libraries, hospitals, skilled nursing and care facilities (with overnight stays), congregate care facilities, hotels, places of assembly (including churches and theaters), buildings with more than 3 aboveground habitable floors, noise sensitive outdoor nonresidential uses, critical community infrastructure facilities, and hazards to flight.

(f) Any reflective materials on the building's rooftop. (added by the Commission at meeting dated (11/10/16)

3. Prior to issuance of any building permit, the landowner shall convey and have recorded an avigation easement to March Inland Port Airport Authority. Contact March Joint Powers Authority at (951) 656-7000 for additional information.

4. The attached notice shall be given to all prospective purchasers of the property and tenants of the building.

5. The proposed detention basins on the site (including water quality management basins) shall be designed so as to provide for a maximum 48-hour detention period following the conclusion of the storm event for the design storm (may be less, but not more), and to remain totally dry between rainfalls. Vegetation in and around the detention basins that would provide food or cover for bird species that would be incompatible with airport operations shall not be utilized in project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature. Landscaping in and around the detention basin(s) shall not include trees that produce seeds, fruits, or berries.

6. The project has been evaluated as a proposal for the establishment of an industrial building (warehouse/manufacturing facility) with not more than 10,000 square feet of office area in any given acre. The City of Moreno Valley shall require additional review by the Airport Land Use Commission prior to establishment of any of the following uses

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in this structure.

Action rooms, auditoriums, bowling alleys, call centers, conference rooms larger than 1,500 square feet in area, classrooms, courtrooms, dance floors, dormitories, drinking establishments, exercise rooms, exhibit rooms, health care facilities (without overnight stays), gymnasiums, locker rooms, lounges, restaurants, retail sales, skating rinks, stages, swimming pools, and all other uses that would be considered to have an occupancy level greater than one person per 100 square feet (minimum square feet per occupant less than 100) pursuant to California Building Code (1998) Table 10-A.

7. This project has been evaluated as a proposal for 347,080 square feet warehouse area, 89,270 square feet of manufacturing area, and 10,000 square feet of second floor mezzanine/office area. Any increase in total building area or increase in manufacturing or office area will require review by the Airport Land Use Commission. In addition, this project shall not store, process or manufacture hazardous material without review and approval by the Airport Land Use Commission.

8. Noise attenuation measure shall be incorporated into the design of the office areas of the structure, to the extent that such measures are necessary to ensure that interior noise levels from aircraft operations are at or below 45 CNEL.

9. March Air Reserve Base must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result. Sources of electromagnetic radiation include radio wave transmission in conjunction with remote equipment inclusive of irrigation controllers, access gates, etc.

The following conditions have been added subsequent to the ALUC hearing pursuant to the terms of the FAA Obstruction Evaluation Services letters issued on December 1, 2016 for Aeronautical Study Nos. 2016-AWP-10155-OE, 2016-AWP-10156-OE, and 2016-AWP-0157-OE.

10. The Federal Aviation Administration has conducted aeronautical studies of the propose project (Aeronautical Study Nos. 2016-AWP-10155-OE, 2016-AWP-10156-OE, and 2016-AWP-0157-OE, and has determined that neither marking nor lighting of the structures therein at the heights and elevations studied is necessary for aviation safety. However, if marking and/or lighting for aviation safety are accomplished on a voluntary basis, such marking and/or lighting (if any) shall be installed in accordance with FAA Advisory Circular 70/7460-1 L Change 1 and shall be maintained in accordance therewith for the life of the project.

11. The proposed structure shall not exceed a height of 48 feet above ground level and a maximum elevation at top point (including all roof-mounted equipment, if any) of 1517 feet above mean sea level.

12. The maximum height and top point elevation specified above shall not be amended without further review by Airport Land Use Commission and the Federal Aviation Administration; provided, however, that reduction in structure height or elevation shall

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not require further review by the Airport Land Use Commission.

13. Temporary construction equipment used during actual construction of the structures shall not exceed 48 feet in height and a maximum elevation of 1517 feet above mean sea level, unless separate notice is provided to the Federal Aviation Administration through the Form 7460-1 process.

14. Within five (5) days after construction reaches its greatest height, FAA Form 7460-2 (Part II), Notice of Actual Construction or Alteration, shall be completed by the project proponent or his/her designee and e-filed with the Federal Aviation Administration. (Go to https://oeaaa.faa.gov for instructions.) This requirement is also applicable in the event the project is abandoned or a decision is made not to construct the structure.

FIRE PREVENTION BUREAU

With respect to the conditions of approval, the following fire protection measures shall be provided in accordance with Moreno Valley City Ordinances and/or recognized fire protection standards:

F1. Buildings greater than 300,000 square feet in area shall be provided with a Fire Command Center (F.C.C.) for fire department operations. The F.C.C. shall be located adjacent to the main lobby, be accessible from the exterior, and be at the level of the fire department vehicular access. The F.C.C. shall be a minimum of 200 square feet in area with a minimum dimension of 10 feet. The F.C.C. shall be separated from the remainder of the building by not less than a two hour fire barrier constructed in accordance with the California Building Code. The F.C.C. shall contain features 3, 5, 8, 10, 12, 13, and 14 listed in section 508.1.5 of the California Fire Code. All other features listed in section 508.1.5 of the California Fire Code shall be provided in the F.C.C. when the building contains those respective features. (MVMC 508.1)

F2. The Fire Prevention Bureau is required to set a minimum fire flow for the remodel or construction of all commercial buildings per CFC Appendix B and Table B105.1. The applicant/developer shall provide documentation to show there exists a water system capable of delivering 4000 g.p.m. for 4 hour(s) duration at 20-PSI residual operating pressure. The required fire flow may be adjusted during the approval process to reflect changes in design, construction type, or automatic fire protection measures as approved by the Fire Prevention Bureau. Specific requirements for the project will be determined at time of submittal. (CFC 507.3, Appendix B)

F3. The minimum number of fire hydrants required, as well as the location and spacing of fire hydrants, shall comply with the C.F.C., MVMC, and NFPA 24. A fire hydrant shall be located within 50 feet of the fire department connection for buildings protected with a fire sprinkler system. The size and number of outlets required for the approved fire hydrants are (6" x 4" x 2 ½" x 2 ½") (CFC 507.5.1, 507.5.7, Appendix C, NFPA 24-7.2.3, MVMC 912.2.1)

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F4. The Fire Department emergency vehicular access road shall be (all weather surface) capable of sustaining an imposed load of 80,000 lbs. GVW, based on street standards approved by the Public Works Director and the Fire Prevention Bureau. The approved fire access road shall be in place during the time of construction. Temporary fire access roads shall be approved by the Fire Prevention Bureau. (CFC 501.4, and MV City Standard Engineering Plan 108d)

F5. All Fire Department access roads or driveways shall not exceed 12 percent grade. (CFC 503.2.7 and MVMC 8.36.060[G])

F6. The angle of approach and departure for any means of Fire Department access shall not exceed 1 ft. drop in 20 ft. (0.3 m drop in 6 m), and the design limitations of the fire apparatus of the Fire Department shall be subject to approval by the AHJ. (CFC 503 and MVMC 8.36.060)

F7. Fire lanes and fire apparatus access roads shall have an unobstructed width of not less than twenty–four (24) feet for building below 35 feet in height and thirty (30) feet for buildings over 35 feet in height and an unobstructed vertical clearance of not less the thirteen (13) feet six (6) inches. (CFC 503.2.1 and MVMC 8.36.060[E])

F8. Prior to issuance of Building Permits, the applicant/developer shall provide the Fire Prevention Bureau with an approved site plan for Fire Lanes and signage. (CFC 501.3)

F9. Prior to issuance of Certificate of Occupancy or Building Final, “Blue Reflective Markers” shall be installed to identify fire hydrant locations in accordance with City specifications. (CFC 509.1 and MVLT 440A-0 through MVLT 440C-0)

F10. Prior to issuance of Certificate of Occupancy or Building Final, street address numbers shall be displayed in a prominent location on the street side. The numerals shall be a minimum of 12 inches in height. (CFC 505.1, MVMC 8.36.060[I])

F11. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire sprinkler system based on square footage and type of construction, occupancy or use. Fire sprinkler plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9, MVMC 8.36.100[D])

F12. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire alarm system monitored by an approved Underwriters Laboratory listed central station based on a requirement for monitoring the sprinkler system, occupancy or use. Fire alarm panel shall be accessible from exterior of building in an approved location. Plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9 and MVMC 8.36.100)

F13. Plans for private water mains supplying fire sprinkler systems and/or private fire hydrants shall be submitted to the Fire Prevention Bureau for approval. (CFC 105 and CFC 3312.1)

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F14. Prior to issuance of Building Permits, the applicant/developer shall furnish one copy of the water system plans to the Fire Prevention Bureau for review. Plans shall:

a. Be signed by a registered civil engineer or a certified fire protection engineer;
b. Contain a Fire Prevention Bureau approval signature block; and
c. Conform to hydrant type, location, spacing of new and existing hydrants and minimum fire flow required as determined by the Fire Prevention Bureau.

The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

F15. Existing fire hydrants on public streets are allowed to be considered available. Existing fire hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads. (CFC 507, 501.3)

a. The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

F16. Prior to issuance of a Certificate of Occupancy or Building Final, a "Knox Box Rapid Entry System" shall be provided. The Knox-Box shall be installed in an accessible location approved by the Fire Code Official. All exterior security emergency access gates shall be electronically operated and be provided with Knox key switches for access by emergency personnel. (CFC 506.1)

F17. The Fire Code Official is authorized to enforce the fire safety during construction requirements of Chapter 33. (CFC Chapter 33 & CBC Chapter 33)

F18. Prior to construction, all traffic calming designs/devices must be approved by the Fire Marshal and City Engineer.

PUBLIC WORKS DEPARTMENT – LAND DEVELOPMENT DIVISION

The following are the Public Works Department – Land Development Division Conditions of Approval for this project and shall be completed at no cost to any government agency. All questions regarding the intent of the following conditions shall be referred to the Land Development Division.

General Conditions

LD1. (G) The developer shall comply with all applicable City ordinances and resolutions including the City's Municipal Code (MC) and if subdividing land, the Government Code (GC) of the State of California, specifically Sections 66410 through 66499.58, said sections also referred to as the Subdivision Map Act (SMA). [MC 9.14.010]

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LD2. (G) The plot plan shall correctly show all existing easements, traveled ways, and drainage courses. Any omission may require the map or plans associated with this application to be resubmitted for further consideration. [MC 9.14.040(A)]

LD3. (G) In the event right of way or offsite easements are required to construct offsite improvements necessary for the orderly development of the surrounding area to meet the public health and safety needs, the developer shall make a good faith effort to acquire the needed right of way in accordance with the Land Development Division's administrative policy. If unsuccessful, the Developer shall enter into an agreement with the City to acquire the necessary right of way or offsite easements and complete the improvements at such time the City acquires the right of way or offsite easements which will permit the improvements to be made. The developer shall be responsible for all costs associated with the right of way or easement acquisition. [GC 66462.5]

LD4. (G) If improvements associated with this project are not initiated within two (2) years of the date of approval of the Public Improvement Agreement (PIA), the City Engineer may require that the engineer's estimate for improvements associated with the project be modified to reflect current City construction costs in effect at the time of request for an extension of time for the PIA or issuance of a permit.

LD5. (G) The developer shall monitor, supervise and control all construction and construction supportive activities, so as to prevent these activities from causing a public nuisance, including but not limited to, insuring strict adherence to the following:

a. Removal of dirt, debris, or other construction material deposited on any public street no later than the end of each working day.

b. Observance of working hours as stipulated on permits issued by the Land Development Division.

c. The construction site shall accommodate the parking of all motor vehicles used by persons working at or providing deliveries to the site.

d. All dust control measures per South Coast Air Quality Management District (SCAQMD) requirements during the grading operations.

Violation of any condition, restriction or prohibition set forth in these conditions shall subject the owner, applicant, developer or contractor(s) to remedy as noted in City Municipal Code 8.14.090. In addition, the City Engineer or Building Official may suspend all construction related activities for violation of any condition, restriction or prohibition set forth in these conditions until such time as it has been determined that all operations and activities are in conformance with these conditions.

LD6. (G) The developer shall protect downstream properties from damage caused by alteration of drainage patterns (i.e. concentration or diversion of flow, etc.). Protection shall be provided by constructing adequate drainage facilities, including, but not limited to, modifying existing facilities or by securing a drainage easement. [MC 9.14.110]

LD7. (G) Prior to any plan approval, a final detailed drainage study (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer. The study shall include existing and proposed hydrologic conditions as well as hydraulic calculations for all drainage control devices and storm drain lines. [MC 9.14.110(A.1)]. A digital (pdf) copy of the approved drainage study shall be submitted to the Land Development Division.

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LD8. (G) The final approved conditions of approval (COAs) and any applicable Mitigation Measures issued by the Planning Division shall be photographically or electronically placed on Mylar sheets and included in the Grading and Street Improvement plans.

LD9. (G) Aggregate slurry, as defined in Section 203-5 of Standard Specifications for Public Works Construction, may be required just prior to the end of the one-year warranty period of the public streets at the discretion of the City Engineer. If slurry is required, a slurry mix design shall be submitted for review and approved by the City Engineer. The latex additive shall be Ultra Pave 70 (for anionic) or Ultra Pave 65 K (for cationic) or an approved equal per the geotechnical report. The latex shall be added at the emulsion plant after weighing the asphalt and before the addition of mixing water. The latex shall be added at a rate of two to two-and-one-half (2 to 2½) parts to one-hundred (100) parts of emulsion by volume. Any existing striping shall be removed prior to slurry application and replaced per City standards.

Prior to Grading Plan Approval

LD10. (GPA) Grading plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD11. (GPA) Landscape & Irrigation plans (prepared by a registered/licensed landscape architect) for water quality BMPs shall be submitted for review and approved by the City Engineer per the current submittal requirements, if applicable.

LD12. (GPA) The developer shall ensure compliance with the City Grading ordinance, these Conditions of Approval and the following criteria:

a. The project street and lot grading shall be designed in a manner that perpetuates the existing natural drainage patterns with respect to tributary drainage area and outlet points. Unless otherwise approved by the City Engineer, lot lines shall be located at the top of slopes.

b. Any grading that creates cut or fill slopes adjacent to the street shall provide erosion control, sight distance control, and slope easements as approved by the City Engineer.

c. All improvement plans are substantially complete and appropriate clearance letters are provided to the City.

d. A soils/geotechnical report (addressing the soil's stability and geological conditions of the site) shall be submitted to the Land Development Division for review. A digital (pdf) copy of the soils/geotechnical report shall be submitted to the Land Development Division.

LD13. (GPA) The developer shall select Low Impact Development (LID) Best Management Practices (BMPs) designed per the latest version of the Water Quality Management Plan (WQMP) - a guidance document for the Santa Ana region of Riverside County.

LD14. (GPA) For projects that will result in discharges of storm water associated with construction with a soil disturbance of one or more acres of land, the developer shall submit a Notice of Intent (NOI) and obtain a Waste Discharger's Identification number (WDID#) from the State Water Quality Control Board (SWQCB) which shall be noted on the grading plans.

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LD15. (GPA) Two (2) copies of the final project-specific Water Quality Management Plan (WQMP) shall be submitted for review and approved by the City Engineer, which:

a. Addresses Site Design Best Management Practices (BMPs) such as minimizing impervious areas, maximizing permeability, minimizes directly connected impervious areas to the City's street and storm drain systems, and conserves natural areas;

b. Incorporates Source Control BMPs and provides a detailed description of their implementation;

c. Describes the long-term operation and maintenance requirements for BMPs requiring maintenance; and

d. Describes the mechanism for funding the long-term operation and maintenance of the BMPs.

A copy of the final WQMP template can be obtained on the City's Website or by contacting the Land Development Division. A digital (pdf) copy of the approved final project-specific Water Quality Management Plan (WQMP) shall be submitted to the Land Development Division.

LD16. (GPA) A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in conformance with the State's current Construction Activities Storm Water General Permit. A copy of the current SWPPP shall be kept at the project site and be available for review upon request.

LD17. (GPA) The developer shall pay all remaining plan check fees.

LD18. (GPA) Resolution of all drainage issues shall be as approved by the City Engineer.

Prior to Grading Permit

LD19. (GP) The developer shall submit recorded slope easements from adjacent property owners in all areas where grading resulting in slopes is proposed to take place outside of the project boundaries. For all other offsite grading, written permission from adjacent property owners shall be submitted.

LD20. (GP) A receipt showing payment of the Area Drainage Plan (ADP) fee to Riverside County Flood Control and Water Conservation District shall be submitted. [MC 9.14.100(O)]

LD21. (GP) Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the completion of the grading operations for the project. [MC 8.21.070]

LD22. (GP) Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the implementation and maintenance of erosion control measures. At least twenty-five (25) percent of the required security shall be in the form of a cash deposit with the City. [MC 8.21.160(H)]

LD23. (GP) The developer shall pay all applicable inspection fees.

LD24. (GP) A digital (pdf) copy of the approved grading plans shall be submitted to the Land Development Division.

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LD25. (GP) Prior to the payment of the Development Impact Fee (DIF), the developer may enter into a DIF Improvement Credit Agreement to secure credit for the construction of applicable improvements. If the developer fails to complete this agreement prior to the timing specified above, no credits will be given. The developer shall pay current DIF fees adopted by the City Council. [Ord. 695 § 1.1 (part), 2005] [MC 3.38.030, 040, 050]

LD26. (BP) Prior to the payment of the Transportation Uniform Mitigation Fee (TUMF), if applicable, the developer may enter into a TUMF Improvement Credit Agreement to secure credit for the construction of applicable improvements. If the developer fails to complete this agreement by the timing specified above, no credits will be given. The developer shall pay current TUMF fees adopted by the City Council. [Ord. 835 § 2.1, 2012] [MC 3.44.060]

Prior to Improvement Plan Approval

LD27. (IPA) All public improvement plans (prepared by a licensed/registered civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD28. (IPA) The developer shall submit clearances from all applicable agencies, and pay all applicable plan check fees.

LD29. (IPA) The street improvement plans shall comply with current City policies, plans and applicable City standards (i.e. MVSI-160 series, etc.) throughout this project.

LD30. (IPA) The design plan and profile shall be based upon a centerline, extending beyond the project boundaries a minimum distance of 300 feet at a grade and alignment approved by the City Engineer.

LD31. (IPA) The plans shall indicate any restrictions on trench repair pavement cuts to reflect the City's moratorium on disturbing newly-constructed pavement less than three (3) years old and recently slurry sealed streets less than one (1) year old. Pavement cuts for trench repairs may be allowed for emergency repairs or as specifically approved by the City Engineer.

LD32. Prior to precise grading plan approval, all dry and wet utilities shall be shown on the plans and any crossings shall be potholed to determine actual location and elevation. Any conflicts shall be identified and addressed on the plans. The pothole survey data shall be submitted to Land Development with the public improvement plans for reference purposes only. The developer is responsible to coordinate with all affected utility companies and bear all costs of any utility relocation.

LD33. (IPA) The developer is required to bring any existing access ramps adjacent to and fronting the project to current ADA (Americans with Disabilities Act) requirements. However, when work is required in an intersection that involves or impacts existing access ramps, all access ramps in that intersection shall be retrofitted to comply with current ADA requirements, unless approved otherwise by the City Engineer.

LD34. (IPA) Drainage facilities (i.e. catch basins, etc.) with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided.

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LD35. (IPA) The hydrology study shall be designed to accept and properly convey all off-site drainage flowing onto or through the site. All storm drain design and improvements shall be submitted for review and approved of the City Engineer. In the event that the City Engineer permits the use of streets for drainage purposes, the provisions of current City standards shall apply. Should the quantities exceed the street capacity or the use of streets be prohibited for drainage purposes, as in the case where one travel lane in each direction shall not be used for drainage conveyance for emergency vehicle access on streets classified as minor arterials and greater, the developer shall provide adequate facilities as approved by the City Engineer. [MC 9.14.110 A.2]

LD36. (IPA) For non-subdivision projects, all street dedications shall be free of encumbrances, irrevocably offered to the public and shall continue in force until the City accepts or abandons such offers, unless otherwise approved by the City Engineer.

Prior to Encroachment Permit

LD37. (EP) All work performed within public right of way requires an encroachment permit. Security (in the form of a cash deposit or other approved means) may be required as determined by the City Engineer. For non-subdivision projects, the City Engineer may require the execution of a Public Improvement Agreement (PIA) as a condition of the issuance of a construction or encroachment permit. All inspection fees shall be paid prior to issuance of construction permit. [MC 9.14.100(C.4)]

LD38. (EP) A digital (pdf) copy of all approved improvement plans shall be submitted to the Land Development Division.

LD39. (EP) All applicable inspection fees shall be paid.

Prior to Building Permit

LD40. (BP) For non-subdivision projects, the developer shall guarantee the completion of all related public improvements required for this project by executing a Public Improvement Agreement (PIA) with the City and posting the required security. [MC 9.14.220]

LD41. (BP) For non-subdivision projects, the developer shall comply with the requirements of the City Engineer based on recommendations of the Riverside County Flood Control District regarding the construction of County Master Plan Facilities.

LD42. (BP) For non-subdivision projects, the developer shall enter into a Cooperative Agreement with the City and Riverside County Flood Control and Water Conservation District establishing the terms and conditions covering the inspection, operation and maintenance of Master Drainage Plan facilities required to be constructed as part of the project.

LD43. (BP) An engineered-fill certification, rough grade certification and compaction report shall be submitted for review and approved by the City Engineer. A digital (pdf) copy of the approved compaction report shall be submitted to the Land Development Division. All pads shall meet pad elevations per approved grading plans as noted by the setting of “blue-top” markers installed by a registered land surveyor or licensed civil engineer.

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LD44. (BP) For Commercial/Industrial projects, the owner may have to secure coverage under the State's General Industrial Activities Storm Water Permit as issued by the State Water Resources Control Board.

Prior to Occupancy

LD45. (CO) All required as-built plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD46. (CO) The engineered final/precise grade certification shall be submitted for review and approved by the City Engineer.

LD47. (CO) All outstanding fees shall be paid.

LD48. (CO) For non-subdivision projects, in compliance with Proposition 218, the developer shall agree to approve the City of Moreno Valley NPDES Regulatory Rate Schedule that is in place at the time of certificate of occupancy issuance. Under the current permit for storm water activities required as part of the National Pollutant Discharge Elimination System (NPDES) as mandated by the Federal Clean Water Act, this project is subject to the following requirements:

a. Select one of the following options to meet the financial responsibility to provide storm water utilities services for the required continuous operation, maintenance, monitoring system evaluations and enhancements, remediation and/or replacement, all in accordance with Resolution No. 2002-46.

   i. Participate in the mail ballot proceeding in compliance with Proposition 218, for the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule and pay all associated costs with the ballot process; or

   ii. Establish an endowment to cover future City costs as specified in the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule.

b. Notify the Special Districts Division of the intent to request building permits 90 days prior to their issuance and the financial option selected. The financial option selected shall be in place prior to the issuance of certificate of occupancy. [California Government Code & Municipal Code]

LD49. (CO) The developer shall complete all public improvements in conformance with current City standards, except as noted in the Special Conditions, including but not limited to the following:

a. Street improvements including, but not limited to: pavement, base, curb and/or gutter, cross gutters, spandrel, sidewalks, drive approaches, pedestrian ramps, street lights, signing, striping, under sidewalk drains, landscaping and irrigation, medians, redwood header boards, pavement tapers/transitions and traffic control devices as appropriate.

b. Storm drain facilities including, but not limited to: storm drain pipe, storm drain laterals, open channels, catch basins and local depressions.

c. City-owned utilities.

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d. Sewer and water systems including, but not limited to: sanitary sewer, potable water and recycled water.

e. Under grounding of all existing and proposed utilities adjacent to and on-site. [MC 9.14.130]

f. Relocation of overhead electrical utility lines including, but not limited to: electrical, cable and telephone.

LD50. (CO) For industrial projects, a "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant" shall be recorded to provide public notice of the maintenance requirements to be implemented per the approved final project-specific WQMP. A boilerplate copy of the "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant" can be obtained by contacting the Land Development Division.

LD51. (CO) The Developer shall comply with the following water quality related items:

a. Notify the Land Development Division prior to construction and installation of all structural BMPs so that an inspection can be performed.

b. Demonstrate that all structural BMPs described in the approved final project-specific WQMP have been constructed and installed in conformance with the approved plans and specifications;

c. Demonstrate that Developer is prepared to implement all non-structural BMPs described in the approved final project-specific WQMP; and

d. Demonstrate that an adequate number of copies of the approved final project-specific WQMP are available for future owners/occupants.

e. Clean and repair the water quality BMP's, including re-grading to approved civil drawings if necessary.

f. Provide City with updated Engineer's Line and Grade Certification.

g. Obtain approval and complete installation of the irrigation and landscaping.

LD52. (CO) The applicant shall ensure the following, pursuant to Section XII. I. of the 2010 NPDES Permit:

a. Field verification that structural Site Design, Source Control and Treatment Control BMPs are designed, constructed and functional in accordance with the approved Final Water Quality Management Plan (WQMP).

b. Certification of best management practices (BMPs) from a state licensed civil engineer. An original WQMP BMP Certification shall be submitted for review and approved by the City Engineer.

Special Conditions

LD53. Overall, the proposed LID BMP concept is accepted as the conceptual LID BMP for the proposed site. The Applicant has proposed to incorporate the use of Bioretention. Final design details must be provided in the first submittal of the F-WQMP. The sizes of all LID BMPs are to be determined using the procedures set forth in RCFC&WCD's Design

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Handbook for Low Impact Development Best Management Practices, dated September 2011 or later. The Applicant acknowledges that more area than currently shown on the plans may be required to treat site runoff as required by the WQMP guidance.

LD54. Prior to rough grading plan approval, the following shall be shown on the plans and dedications made, via separate instrument and submitted to the City for review and approval: A 4-foot pedestrian right-of-way dedication behind any driveway approach per City Standard MVSI-112C-0.

LD55. Prior to rough grading plan approval, this project shall submit for review and approval a lot line adjustment to combine the existing parcels so that they will become one parcel.

LD56. Prior to rough grading plan approval, the following shall be shown on the plans and dedications made, via separate instrument and submitted to the City for review and approval: A 14-foot right-of-way dedication on Indian Street per City Standard MVSI-105A-0 (88-foot RW / 64-foot CC) along the project's frontage.

LD57. Prior to precise grading plan approval, the Applicant shall secure approval of the final, project-specific water quality management plan (F-WQMP) for PA16-0002 Vogel Moreno Valley Industrial. The F-WQMP shall be consistent with the approved P-WQMP and in full conformance with the document; "Water Quality Management Plan – A Guidance Document for the Santa Ana Region of Riverside County" dated October 22, 2012, or current guidance document. The F-WQMP shall be submitted and approved prior to application for and issuance of grading permits. At a minimum, the F-WQMP shall include the following: LID principles, Harvest & Use BMPs (as applicable); Source control BMPs; Operation and Maintenance requirements for BMPs; and sources of funding for BMP implementation

LD58. Prior to precise grading plan approval, the grading plans shall show any proposed trash enclosure as dual bin; one bin for trash and one bin for recyclables. The trash enclosure shall be per City Standard Plan MVGF-660A-0 or 660B-0.

LD59. Prior to precise grading plan approval, the grading plans shall clearly show that the parking lot conforms to City standards. The parking lot shall be 5% maximum, 1% minimum, 2% maximum at or near any disabled parking stall and travel way. Ramps, curb openings and travel paths shall all conform to current ADA standards as outlined in Department of Justice's "ADA Standards for Accessible Design", Excerpt from 28 CFR Part 36. (www.usdoj.gov) and as approved by the City's Building and Safety Division.

LD60. Prior to occupancy permit issuance, all overhead utilities including utility lines less than 115,000 volts fronting or within the entire project site boundary shall be placed underground per Section 9.14.130C of the City Municipal Code.

LD61. Prior to occupancy, the following improvements shall be completed:

a. Indian Street, Minor Arterial, City Standard MVSI-105A-0 (88-foot RW / 64-foot CC) shall construct the remaining public improvements along the project's south frontage. Improvements shall consist of, but not be limited to pavement, base, street lights,

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driveway approaches, pedestrian ramps, curb & gutter, and sidewalk. In addition, replace or install any damaged, substandard or missing improvements.

b. Pavement core samples of existing pavement on Indian Street shall be taken and findings submitted to the City for review and consideration of pavement improvements. The City will determine the adequacy of the existing pavement structural section. If the existing pavement structural section is found to be adequate, the developer may still be required to perform a one-tenth inch grind and overlay or slurry seal depending on the severity of existing pavement cracking, as required by the City Engineer. If the existing pavement section is found to be inadequate, the Developer shall replace the pavement to meet or exceed the City's pavement structural section standard.

PUBLIC WORKS DEPARTMENT – SPECIAL DISTRICTS DIVISION

Conditions are standard to all or most development projects. Some special conditions, modified conditions or clarification of conditions may be included. Please review conditions as listed and contact the Division at 951.413.3480 for any questions.

Acknowledgement of Conditions

The following items are the Special Districts Division's Conditions of Approval for PA16-0002; this project shall be completed at no cost to any Government Agency. All questions regarding the following Conditions including but not limited to intent, requests for change/modification, variance and/or request for extension of time shall be sought from the Special Districts Division of the Public Works Department 951.413.3480 or by emailing specialdistricts@moval.org.

General Conditions

SD-1 The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks & Community Services) and Zone C (Arterial Street Lighting). All assessable parcels therein shall be subject to annual parcel taxes for Zone A and Zone C for operations and capital improvements.

SD-2 The ongoing maintenance of any landscaping required to be installed behind the curb on Indian St. shall be the responsibility of the property owner.

SD-3 Street Light Authorization forms for all street lights that are conditioned to be installed as part of this project must be submitted to the Special Districts Division for approval, prior to street light installation. The Street Light Authorization form can be obtained from the utility company providing electric service to the project, either Moreno Valley Utility or Southern California Edison. For questions, contact the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

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Prior to Grading Permit

SD-4 This project is included within the future annexation boundaries for Community Facilities District No. 7 (CFD No. 7), Improvement Area No. 1. The Local Component portion of the Area Drainage Plan (ADP) fee for Riverside County Flood Control and Water Conservation District (RCFCWCD) has been allocated toward the debt service payments on CFD No. 7 bonds and/or paid directly for acquisition of RCFCD facilities.

In order for the Developer to meet its financial obligation, it must notify the Special Districts Division when submitting the application for grading permit and select one of the funding options outlined below.

Or

If a grading permit is not required, the Developer must notify the Special Districts Division at 951.413.3480 or specialdistricts@moval.org when submitting the application for building permit issuance and select one of the funding options outlined below.

a. Participate in a special election to annex into CFD No. 7 and pay the equivalent to the Local Component portion of the ADP fee including interest as a special tax levied annually on the Riverside County property tax bill; or

b. Pay the Local Component portion of the ADP fee directly to the City of Moreno Valley, Special Districts Division which shall be used for any authorized purpose for CFD No. 7.

If the funding option selected is participation in a special election, a minimum of 90 days is needed to complete the special election process. This allows adequate time to complete the special election process in compliance with the provisions of Article 13C of the California Constitution for conducting a special election.

Annexation to CFD No. 7 shall be completed or proof of payment of the Local Component portion of the ADP fee shall be provided to the Special Districts Division prior to the issuance of the first building permit for this project.

Prior to Building Permit Issuance

SD-5 (BP) This project has been identified to be included in the formation of a Community Facilities District (Mello-Roos) for Public Safety services, including but not limited to Police, Fire Protection, Paramedic Services, Park Rangers, and Animal Control services. The property owner(s) shall not protest the formation;

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however, they retain the right to object to the rate and method of maximum special tax. In compliance with Proposition 218, the property owner shall agree to approve the mail ballot proceeding (special election) for either formation of the CFD or annexation into an existing district. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance to determine the requirement for participation. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the condition applies, the special election will require a minimum of 90 days prior to issuance of the first building permit. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution. (California Government Code Section 53313 et. seq.)

SD-6 (BP) This project is conditioned to provide a funding source for the following special financing program(s):

a. Street Lighting Services for capital improvements, energy charges, and maintenance.

The Developer's responsibility is to provide a funding source for the capital improvements and the continued maintenance. The Developer shall satisfy this condition with one of the options below.

i. Participate in a special election (mail ballot proceeding) and pay all associated costs of the special election and formation, if any. Financing may be structured through a Community Services District zone, Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or

ii. Establish a Property Owner's Association (POA) or Home Owner's Association (HOA) which will be responsible for any and all operation and maintenance costs

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option when submitting the application for building permit issuance. The option for participating in a special election requires approximately 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

The financial option selected shall be in place prior to the issuance of the first certificate of occupancy for the project.

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SD-7 (BP) This project is conditioned for a proposed district to provide a funding source for the operation and maintenance of public improvements and/or services associated with new development in that territory. The Developer shall satisfy this condition with one of the options outlined below.

a. Participate in a special election for maintenance/services and pay all associated costs of the election process and formation, if any. Financing may be structured through a Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or

b. Establish an endowment fund to cover the future maintenance and/or service costs.

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the district has been or is in the process of being formed the Developer must inform the Special Districts Division of its selected financing option (a. or b. above). The option for participating in a special election requires 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

The financial option selected shall be in place prior to the issuance of the first certificate of occupancy for the project.

SD-8 Commercial (BP) If Land Development, a Division of the Public Works Department, requires this project to supply a funding source necessary to provide for, but not limited to, stormwater utilities services for the continuous operation, remediation and/or replacement, monitoring, systems evaluations and enhancement of on-site facilities and performing annual inspections of the affected areas to ensure compliance with state mandated stormwater regulations, a funding source needs to be established. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option for the National Pollution Discharge Elimination System (NPDES) program when submitting the application for the first building permit issuance (see Land Development's related condition). Participating in a special election the process requires a 90 day period prior to the City's issuance of a building permit. This allows adequate time to be in compliance with the provisions of Article 13D of the California Constitution. (California Health and Safety Code Sections 5473 through 5473.8 (Ord. 708 Section 3.1, 2006) & City of Moreno Valley Municipal Code Title 3, Section 3.50.050.)

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SD-9 (BP) Prior to the issuance of the first building permit for this project, the Developer shall pay Advanced Energy fees for all applicable Residential and Arterial Street Lights required for this development. Payment shall be made to the City of Moreno Valley and collected by the Land Development Division. Fees are based upon the Advanced Energy fee rate in place at the time of payment, as set forth in the current Listing of City Fees, Charges, and Rates adopted by City Council. The Developer shall provide a copy of the receipt to the Special Districts Division *(specialdistricts@moval.org).* Any change in the project which may increase the number of street lights to be installed will require payment of additional Advanced Energy fees at the then current fee. Questions may be directed to the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

Public Works - Transportation Engineering Division

GENERAL CONDITIONS

TE1. All driveways shall conform to Section 9.11.080, and Table 9.11.080-14 of the City's Development Code – Design Guidelines and City of Moreno Valley Standard Plan No. MVSI-112C-0 for commercial driveway approach or as approved by the City Engineer.

- The northerly driveway along Indian Street (driveway 1) shall have full access.
- The southerly driveway along Indian Street (driveway 2) shall have full access.

TE2. Sight distance at the project driveways shall conform to City of Moreno Valley Standard No. MVSI-164A-0, MVSI-164B-0, and MVSI-164C-0 at the time of preparation of final grading, landscape, and street improvement plans.

TE3. All on-site signing and striping shall be installed per the current California Manual on Uniform Traffic Control Devices (CA MUTCD) standards.

TE4. Indian Street is designated a Minor Arterial (88'RW/64'CC) per City Standard Plan No. MVSI-105A-0. Any improvements undertaken by this project shall be consistent with the City's standards for this facility.

TE5. Conditions of approval may be modified if project is phased or altered from any approved plans.

PRIOR TO IMPROVEMENT PLAN APPROVAL OR CONSTRUCTION PERMIT

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TE6. Prior to the final approval of the street improvement plans, a signing and striping plan shall be prepared per City of Moreno Valley Standard Plans - Section 4 for all streets with a cross section of 66'/44' and wider.

TE7. Prior to the commencement of construction activity, construction traffic control plans prepared by a Registered Civil or Traffic Engineer may be required to be submitted to the City for plan approval.

PRIOR TO ISSUANCE OF BUILDING PERMIT IMPROVEMENT PLAN APPROVAL OR CONSTRUCTION PERMIT

TE8. (BP) Prior to issuance of a building permit, the project applicant shall make a fair-share contribution to the City of Moreno Valley for improvements at the following intersection:

1. Indian Street and Grove View Road - $4,885

TE9. (BP) Prior to issuance of a building permit, the project applicant shall make fair-share contributions to the City of Perris for improvements at the following intersections:

1. Western Way / Harley Knox Boulevard - $18,541
2. Indian Street / Harley Knox Boulevard - $14,006

Total $32,547

PRIOR TO CERTIFICATE OF OCCUPANCY OR BUILDING FINAL

TE10. (CO) Prior to issuance of a certificate of occupancy, all approved signing and striping shall be installed per current City Standards and the approved plans. On-site signing and striping (outside the public right of way) shall be per the latest version of the CAMUTCD.

TE11. (CO) Prior to issuance of a certificate of occupancy, Communication conduits shall be installed along the Indian Street project frontage per City Standard Plan No. MVSI-186-0.

PUBLIC WORKS DEPARTMENT - Moreno Valley Utility

Acknowledgement of Conditions

The following items are Moreno Valley Utility's Conditions of Approval for project PA16-0002 & P16-003; this project shall be completed at no cost to any Government Agency. All questions regarding Moreno Valley Utility's Conditions including but not limited to,

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intent, requests for change/modification, variance and/or request for extension of time shall be sought from Moreno Valley Utility (the Electric Utility Division) of the Public Works Department 951.413.3500. The applicant is fully responsible for communicating with Moreno Valley Utility staff regarding their conditions.

PRIOR TO ENERGIZING MVU ELECTRIC UTILITY SYSTEM AND CERTIFICATE OF OCCUPANCY

MVU-1 If the project is a multi-family development, townhome, condominium, apartment, commercial or industrial project, and it requires the installation of electric distribution facilities within common areas, a non-exclusive easement shall be provided to Moreno Valley Utility to include all such common areas. All easements shall include the rights of ingress and egress for the purpose of operation, maintenance, facility repair, and meter reading.

MVU-2 (BP) **City of Moreno Valley Municipal Utility Service – Electrical Distribution**: Prior to constructing the MVU Electric Utility System, the developer shall submit a detailed engineering plan showing design, location and schematics for the utility system to be approved by the City Engineer. In accordance with Government Code Section 66462, the Developer **shall** execute an agreement with the City providing for the installation, construction, improvement and dedication of the utility system following recordation of final map and concurrent with trenching operations and other subdivision improvements so long as said agreement incorporates the approved engineering plan and provides financial security to guarantee completion and dedication of the utility system.

The Developer **shall** coordinate and receive approval from the City Engineer to install, construct, improve, and dedicate to the City, or the City's designee, all utility infrastructure (including but not limited to conduit, equipment, vaults, ducts, wires, switches, conductors, transformers, and "bring-up" facilities including electrical capacity to serve the identified development and other adjoining/abutting/ or benefiting projects as determined by Moreno Valley Utility) – collectively referred to as "utility system" (to and through the development), along with any appurtenant real property easements, as determined by the City Engineer to be necessary for the distribution and /or delivery of any and all "utility services" to each lot and unit within the Tentative Map. For purposes of this condition, "utility services" shall mean electric, cable television, telecommunication (including video, voice, and data) and other similar services designated by the City Engineer. "Utility services" shall not include sewer, water, and natural gas services, which are addressed by other conditions of approval.

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The City, or the City's designee, shall utilize dedicated utility facilities to ensure safe, reliable, sustainable and cost effective delivery of utility services and maintain the integrity of streets and other public infrastructure. Developer shall, at developer's sole expense, install or cause the installation of such interconnection facilities as may be necessary to connect the electrical distribution infrastructure within the project to the Moreno Valley Utility owned and controlled electric distribution system.

MVU-3 This project may be subject to a Reimbursement Agreement. The project may be responsible for a proportionate share of costs associated with electrical distribution infrastructure previously installed that directly benefits the project. Payment shall be required prior to issuance of building permits.

MVU-4 For all new projects, existing Moreno Valley Utility electrical infrastructure shall be preserved in place. The developer will be responsible, at developer expense, for any and all costs associated with the relocation of any of Moreno Valley Utility's underground electrical distribution facilities, as determined by Moreno Valley Utility, which may be in conflict with any developer planned construction on the project site.

PARKS & COMMUNITY SERVICES (PCS)

PCS-GC-1 This project is required to supply a funding source for the continued maintenance, enhancement, and or retrofit of neighborhood parks, open spaces, linear parks, and/or trails systems. This can be achieved through annexing into Community Facilities District No. 1 (Park Maintenance). Please contact the Special Districts Division at 951.413.3480 or specialdistricts@moval.org to complete the annexation process.

PCS-GC-2 The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks and Community Services). All assessable parcels therein shall be subject to the annual Zone 'A' charge for operations and capital improvements. Proof of such shall be supplied to Parks and Community Services upon Final Map and at Building Permits.

PCS-GC-3 This project is subject to current Development Impact Fees.

PCS-GC-4 This project is subject to current Quimby Fees.

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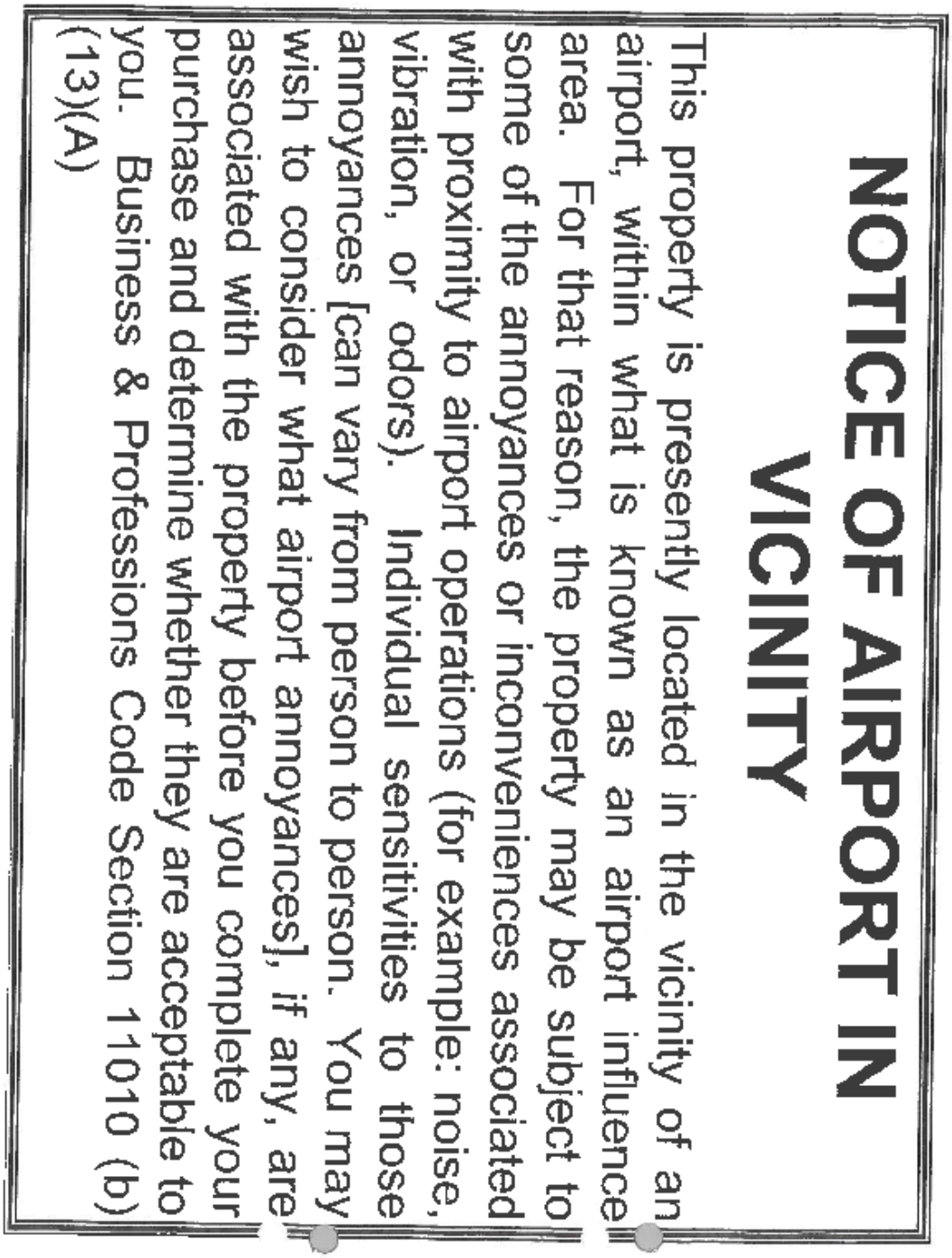
Attachment to ALUC Number 4



NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances [can vary from person to person. You may wish to consider what airport annoyances], *if any*, are associated with the property before you complete your purchase and determine whether they are acceptable to you. Business & Professions Code Section 11010 (b)(13)(A)

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Indian Street Commerce Center

Draft Environmental Impact Report



Prepared for
City of Moreno Valley

August 2016

applied planning inc

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DRAFT ENVIRONMENTAL IMPACT REPORT

for the

Indian Street Commerce Center Project

Prepared for:

City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552
Contact Person: Julia Descoteaux

Prepared by:

Applied Planning, Inc.
5817 Pine Avenue, Suite A
Chino Hills, CA 91709

August 2016

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1.0 EXECUTIVE SUMMARY

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1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

Pursuant to the requirements of the California Environmental Quality Act (CEQA), this Draft Environmental Impact Report (DEIR or EIR) evaluates and discloses the potential environmental effects resulting from construction and operation of the proposed Indian Street Commerce Center Project (the Project). In summary, the Project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. As currently proposed, 347,080 square feet of the Project building area would be allocated for distribution warehouse uses; 89,270 square feet would be assigned to manufacturing uses; and 10,000 square feet would be assigned to office uses. The Project does not include a refrigerated/cold storage component.

The Project site is located in the southern portion of the City of Moreno Valley, in western Riverside County. The Project site is located approximately one-half mile westerly of Perris Boulevard and is bounded by Indian Street to the east. Grove View Road (alignment) comprises the Project site northerly boundary. March Air Force Base is located approximately one-third mile westerly of the Project site.

This EIR Section identifies Project background issues, provides an overview of the Project and its Objectives, and summarizes the potential environmental impacts of the proposal. Table 1.11-1, *Impacts and Mitigation Summary*, presented at the conclusion of this Section, lists these impacts and presents the mitigation measures recommended to eliminate or reduce the effects of those impacts which have been determined to be potentially significant. For a full description of the Project, its impacts, recommended mitigation measures, and considered Alternatives, please refer to EIR Sections 3.0, 4.0, and 5.0, respectively.

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1.2 PROJECT ELEMENTS

Primary elements comprising the Project are summarized below. Please refer also to the expanded characterization of Project facilities and operations presented at EIR Section 3.0, *Project Description*.

1.2.1 Site Preparation

The Project area would be grubbed, rough-graded, and fine-graded in preparation of building construction. Debris generated during site preparation activities would be disposed of and/or recycled consistent with the City's Source Reduction and Recycling Element (SRRE). Site preparation activities in total would be staged in a manner that minimizes exposure of soils and reduces the potential for wind and water erosion. Existing grades within the Project site would be modified to establish suitable building pads and to facilitate site drainage. Allowing for varying soils characteristics approximately 3,000 cubic yards of soil import/export may be required over the course of Project site preparation and construction.

1.2.2 Development Concept

The Project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. As currently proposed, 347,080 square feet of the Project building area would be allocated for distribution warehouse uses; 89,270 square feet would be assigned to manufacturing uses; and 10,000 square feet would be assigned to office uses. Approximately 35 loading dock doors would be provided along the warehouse's southerly face.

The Project Site Plan Concept is presented at Figure 1.2-1. Final designs of the Project building will be realized consistent with industrial design requirements and standards of the encompassing Moreno Valley Industrial Area Plan and Municipal Code Section 9.05.040, "Industrial Site Development Standards."

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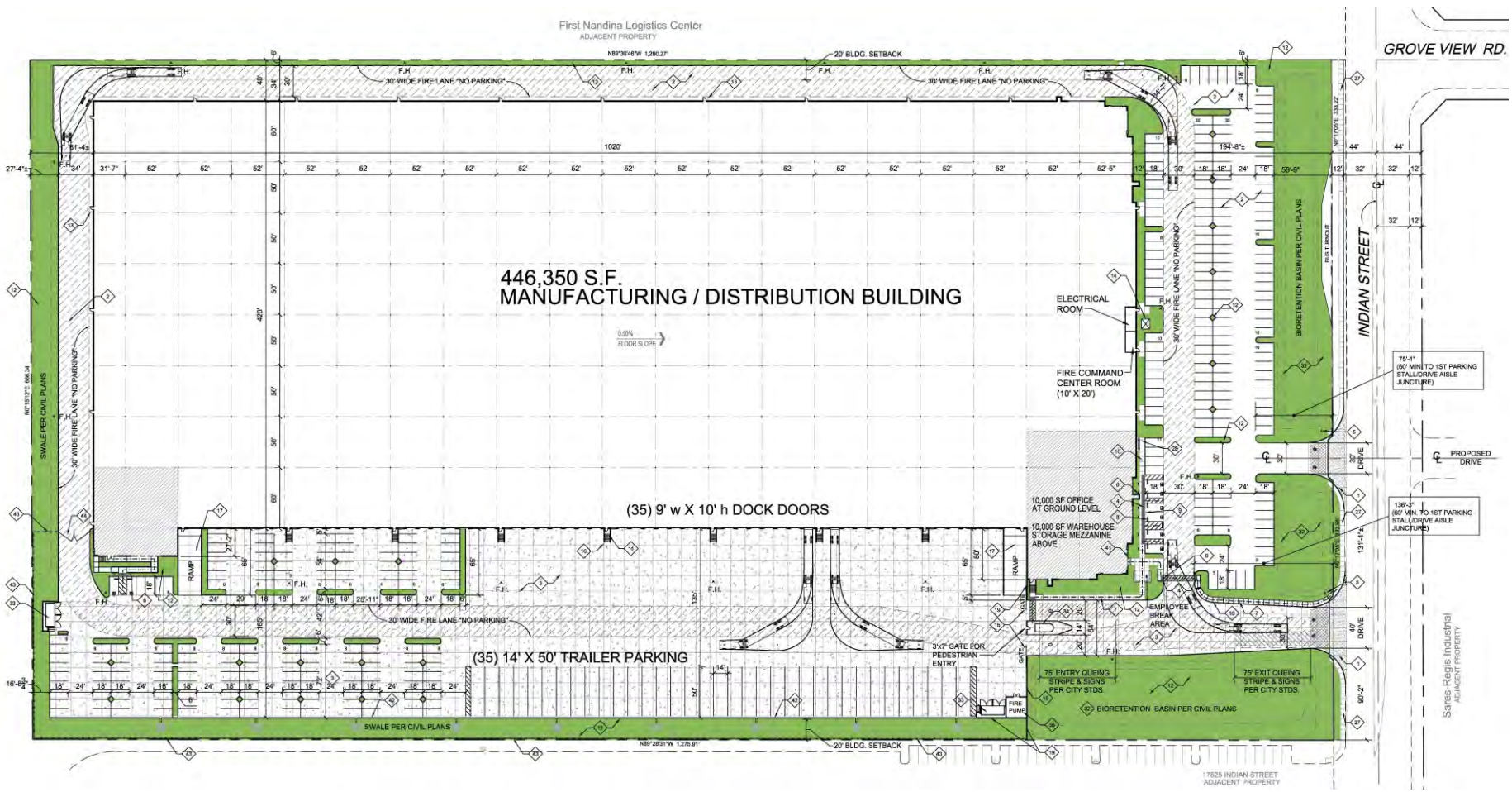

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NOT TO SCALE

Source: Herdman Rierson Architecture + Design (August 2016); Applied Planning, Inc.

Figure 1.2-1
Site Plan

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1.2.3 Access and Circulation

Under the Project Site Plan Concept, primary access to the Project would be provided by two driveways onto existing Indian Street along the site's easterly boundary. Driveway 1 would provide access to passenger cars only. This driveway is proposed to align with the proposed future driveway on the east side of Indian Street. Driveway 2 would provide access to trucks only. Both driveways would be STOP-controlled, and would allow left- and right- turn movements. The Project would also construct all site-adjacent roadway improvements as presented in the Project TIA and summarized at EIR Section 4.2, *Transportation/Traffic.*

1.2.4 Landscape/Hardscape

The Project would incorporate perimeter and interior landscaping and streetscape elements, acting to generally enhance the Project's visual qualities. Proposed landscaping includes varied trees, shrubs, and ground cover. Design accents, including all landscape/hardscape designs and features are subject to City review and approval. Landscaping will also be provided within and adjacent to the Project retention/detention areas acting to screen and enhance these areas as well as provide treatment for stormwater runoff from the Project site. Final design of the Project's landscaping and hardscape are subject to the City's Design Review processes.

1.2.5 Walls/Screening

An approximately 50-foot wide, bermed landscape setback along Indian Street would be provided, acting to screen Project parking areas and generally enhance public views of the Project site. Additionally, a minimum 20-foot landscape setback/edge treatment along the Project's southerly boundary, and an approximately 25-foot wide landscape setback/edge treatment along the Project site westerly boundary would be provided, acting to further screen and enhance views of the Project site. Landscape setbacks and edge treatments would conform to applicable provisions of the Moreno Valley Industrial Area Plan (MVIAP), and requirements stipulated at Municipal Code Section 9.05.040, "Industrial Site Development Standards."

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Internal site features and appurtenances including but not limited to loading dock areas, trash collection areas, and utility pedestals/surface utility boxes, would also be screened.

All walls/screening elements would be designed and implemented consistent with applicable provisions of the encompassing Moreno Valley Industrial Area Plan, Municipal Code Section 9.08.150, "Screening Requirements," and Section 9.10.160, "Outdoor Storage, Trash Areas, and Service Areas."

Project screening elements, including all screening walls, would be architecturally compatible with other Project facilities. Final design of all proposed screening elements are subject to City Design Review and Approval processes.

1.2.6 Lighting

All Project lighting would be designed and implemented in a manner that precludes potential adverse effects of light overspill consistent with requirements of the MVIAP and as identified at City Municipal Code Section 9.10.110, "Light and Glare." Municipal Code Section 9.16.280, "Applications for Lighting, General Requirements," subsection A. states:

Lighting serves both safety and aesthetic purposes, illuminating dark areas and providing for highlights and accents. Effective lighting would highlight building features, add emphasis to important spaces and create an ambience of vitality and security. The intent of these guidelines is to encourage effective and innovative lighting to be incorporated as an integral component of a project.

Final design of the Project lighting plan including locations, heights, and performance standards for all Project lighting features and fixtures is subject to the City's Design Review processes. Detailed lighting plans would be prepared in conjunction with building plan submittals, and would be subject to City Design Review and Approval processes prior to issuance of building permits.

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1.2.7 Signs

Signs for the Project would be designed and implemented consistent with applicable provisions of the MVIAP and Municipal Code Section 9.12, "Sign Regulations." The Project Sign Program would provide detailed guidelines and requirements for facility and informational signs and other graphic displays within the Project area. The Sign Program would afford prospective tenants with the maximum possible exposure in a manner that is consistent with the encompassing Project design concept, and responsive to community visual and aesthetic sensibilities.

1.2.8 Parking

The City of Moreno Valley Municipal Code at Section 9.11.040 "Off-street parking requirements," Table 9.11.040C-12 [Industrial] *Off-Street Parking Requirements* specifies a parking ratio of one parking space for each 1,000 square feet of gross floor area in a warehouse/distribution building for the first 20,000 square feet; one additional space for each 2,000 square feet of floor area within the second 20,000 square feet; and one additional space for each 4,000 square feet of floor area for areas in excess of the initial 40,000 square feet. Additionally, one parking space is required for every 500 square feet of manufacturing uses; and one parking space is required for every 250 square feet of office uses. Pursuant to City parking requirements, the Project would be required to provide an estimated 323 parking spaces. The Preliminary Site Plan Concept provides 326 parking spaces (318 standard spaces, 8 ADA spaces); and 35 additional trailer spaces. No off-site parking is proposed, nor would it be required. Final design of parking areas would be as reviewed and approved by the City through the City's Design Review processes.

Other

The Project would also be provided water and sewer services, solid waste management, natural gas, electrical, telecommunications services. Service providers available to the Project are listed below:

- Water and sewer services (Eastern Municipal Water District);
- Solid waste collection (Waste Management of the Inland Empire);

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- Natural gas (The Gas Company);
- Electricity (SCE, Moreno Valley Electric Utility); and
- Telecommunications (various private services, including AT&T, Time Warner Communications, and Verizon Communications).

1.2.9 Energy Efficiency/Sustainability

Energy-saving and sustainable design features and operational programs would be incorporated into all facilities developed pursuant to the Project. Notably, the Project in total would provide sustainable design features necessary to achieve a "Certified" rating under the United States Green Building Council's Leadership in Energy & Environmental Design (LEED) programs. The Project also incorporates and expresses the following design features and attributes promoting energy efficiency and sustainability.

- The Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provider that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City.

- All on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines.

- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:

    - Sidewalks along the Project site's Indian Street frontage would be constructed as part of the Project, and would connect to existing and planned sidewalks to the north and south of the Project site. Facilitating pedestrian access encourages people to walk instead of drive. The Project would not impose barriers to pedestrian access and interconnectivity.

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- Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery vendor truck trips.

- To reduce water demands and associated energy use, development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy).[1] Development proposals within the Project site would also be required to implement the following:

  - Landscaping palette emphasizing drought tolerant plants consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

  - Use of water-efficient irrigation techniques consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

  - U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and other plumbing fixtures.

Additionally, the Project in total would surpass, by a minimum of 5%, incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards).

[1] Reduction of 20% indoor water usage is consistent with the current CalGreen Code performance standards for residential and non-residential land uses. Per CalGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

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1.3 PROJECT OBJECTIVES

The primary goal of the Project is to develop high quality light industrial/business park uses accommodating a variety of prospective tenants. Complementary Project Objectives include the following:

- Implement the City's General Plan through development that is consistent with the General Plan Community Development Element and applicable General Plan Goals, Objectives, Policies and Programs;
- Implement the Moreno Valley Industrial Area Plan through development that is consistent with the Area Plan land uses and development concepts, and in total supports the Area Plan Vision;
- Provide adequate roadway and wet and dry utility infrastructure to serve the Project;
- Accommodate warehouse and manufacturing uses that are compatible with adjacent land uses;
- Provide an attractive, efficient and safe environment for warehouse uses that is cognizant of natural and man-made conditions;
- Accommodate a mix of warehouse and manufacturing uses responsive to current and anticipated market demands;
- Establish new development that would increase locally available employment opportunities and would further the City's near-term and long-range fiscal goals and objectives; and
- Establish new development that would increase locally available employment opportunities thereby improving jobs/housing balance within the City.

1.4 PROJECT DISCRETIONARY ACTIONS, PERMITS, CONSULTATIONS

Discretionary actions, permits and related consultation(s) necessary to approve and implement the Project include, but are not limited to the following.

1.4.1 Discretionary Actions

CEQA Guidelines Section 15124 states in pertinent part that if "a public agency must make more than one decision on a project, all its decisions subject to CEQA should be listed…"

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Requested decisions, or discretionary actions, necessary to realize the Indian Street Commerce Center Project would include the following:

- **Certification of the EIR (City Case #P16-003).** The proposed development is a Project under CEQA, and may result in significant environmental impacts. Lead Agency certification of the Project EIR is required;

- **Plot Plan Review and Approval** to include Project design and architectural reviews;

- **Construction, grading, and encroachment permits** allowing implementation of the Project facilities within City of Moreno Valley jurisdictional areas; and

- **Vacation and/or dedication of public rights-of-way and easements** as elements of the proposed parcel map, or independent of the map. Rights-of-way and easements would provide public access, and ensure appropriate alignment of and access to infrastructure and utilities.

1.4.2 Other Consultation and Permits

CEQA Guidelines Section 15124 also states that the EIR should, to the extent known, include a list of all the agencies expected to use the EIR in their decision-making (Responsible Agencies, Trustee Agencies), and a list of other permits or approvals required to implement the Project. Based on the current Project design concept, anticipated permits necessary to realize the proposal would likely include, but are not limited to, the following:

- Tribal Resources consultation with requesting Tribes as provided for under *AB 52, Gatto. Native Americans: California Environmental Quality Act*;

- Permitting may be required by/through the Regional Water Quality Control Board (RWQCB) pursuant to requirements of the City's National Pollutant Discharge Elimination System (NPDES) Permit;

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- Permitting may be required by/through the South Coast Air Quality Management District (SCAQMD) for certain equipment or land uses that may be implemented within the Project area; and

- Various construction, grading, and encroachment permits allowing implementation of the Project facilities.

1.4.3 City Development Applications

In support of requested discretionary approvals and permits noted above, development applications submitted by the Project Applicant include:

- **Plot Plan** approval for the Project facilities; and

- **Tentative Parcel Map** approval to combine and reconfigure existing parcels comprising the Project site.

1.5 INITIAL STUDY

The City of Moreno Valley, through the Initial Study process, has determined that the Project has the potential to cause or result in significant environmental impacts, and warranted further analysis, public review, and disclosure through the preparation of an EIR. The Initial Study (IS) and associated EIR Notice of Preparation (NOP), dated March 2016, were forwarded to the California Office of Planning and Research, State Clearinghouse (SCH), and circulated for public review and comment. The State Clearinghouse established the public comment period for the NOP/IS as March 14, 2016 through April 12, 2016. The assigned State Clearinghouse reference for the Project is SCH No. 2016031036. The Initial Study, NOP, and NOP Responses are presented at Appendix A of this Draft EIR.

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1.6 IMPACTS NOT FOUND TO BE POTENTIALLY SIGNIFICANT

The following discussions identify and list those environmental issues that have been determined pursuant to the IS/NOP and associated public review processes to pose no potentially significant impacts, or where compliance with standard mitigation or conditions of approval would reduce certain potentially significant impacts to levels that are less-than-significant. The specific issues listed are not substantively discussed within the body of this EIR. Please refer also to related discussions and analyses presented within the Initial Study, EIR Appendix A.

Aesthetics

The Project site is located in an urbanized area. Implementation of the Project would not affect scenic vistas or scenic resources within the vicinity of a designated scenic highway. The closest designated scenic highways are State Route 60 and Moreno Beach Drive; each located approximately 5 miles from the Project site. The Project site is vacant, and therefore no historic buildings would be directly affected by Project implementation. Nor does the Project propose or require uses or facilities that would affect any off-site historic buildings.

Project development is expected to improve the visual character and quality of the site by improving undeveloped and underutilized areas with contemporary commercial structures and landscaping, consistent with the City General Plan. As supported by the preceding discussions, the Project would have less-than-significant impacts for the following aesthetic considerations:

- Substantial adverse effects on a scenic vista;

- Substantial damage to scenic resources, including, but not limited to, trees, rocks, outcroppings, and historic buildings within a state scenic highway;

- Substantial degradation of the existing visual character or quality of the site and its surroundings; and

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- Creation of a new source of substantial light or glare, which would adversely affect the day or nighttime views in the area.

Agriculture and Forest Resources

The Project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; nor are any portions of the Project site subject to, or otherwise affected by, Williamson Act contracts. Further, there are no lands within the City of Moreno Valley that qualify, or are designated, as forest land or timberland. As such, the Project will have no impact for the following considerations:

- Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use; and

- Conflict with existing zoning for agricultural use, or a Williamson Act contract;

- Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production;

- Result in the loss of forest land or conversion of forest land to non-forest use; or

- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use, or conversion of forest land to non-forest use.

Air Quality

The Project does not propose facilities or on-going operations that would create objectionable odors affecting a substantial number of people. On this basis, the Project would have a less-than-significant impact in regard to the following consideration:

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- Create objectionable odors affecting a substantial number of people.

Biological Resources

The Project would adhere to all applicable General Plan Policies, specifically compliance with the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) area. There are no other known local ordinances protecting biological resources within the City. On this basis, the Project would have a less-than-significant impact in regard to the following considerations:

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Cultural Resources

There are no known historic, archaeological, or paleontological resources located within the Project site, nor would the Project affect any known offsite resources of historical, archaeological, or paleontological significance. Moreover, historic and current disturbance of the subject site indicates that whatever resources may have been previously present, have likely since been disturbed and/or removed.

As required by California Health and Safety Code Section 7050.5, should human remains be found, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are found to be prehistoric, the coroner would coordinate with the California Native American Heritage Commission as required by state law. As such, the Project will have a less-than-significant impact for the following cultural resources consideration:

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- Disturbance of any human remains, including those interred outside of formal cemeteries.

Geology and Soils

The Project site is located in a region known to be seismically active, and seismic ground-shaking may be expected during an earthquake. However, the subject property is not located within an Alquist-Priolo Earthquake Fault Zone, and there are no known or suspected faults or fault traces within the site.

As implemented through the City's standard review and approval processes, a site and use-specific geotechnical study has been prepared for the Project, subject to review and approval by the City Engineer. In general, the geotechnical study addresses and reflects California Building Code design, engineering and construction requirements that act to minimize the effects of earthquakes and other geologic or soils conditions on structures. The Project would comply with the approved geotechnical study pursuant to City development permit review processes.

The Project site evidences no substantive internal elevation differences and, as such, is not internally susceptible to landsliding.

Construction activities associated with the Project would temporarily expose underlying soils, thereby increasing their interim susceptibility to erosion, until the Project is fully implemented. Potential erosion impacts incurred during construction activities are reduced below the level of significance through preparation of, and compliance with, a Storm Water Pollution Prevention Plan (SWPPP). In this regard, the Project proponent is required to file an approved SWPPP prior to initiation of construction activities. Compliance with the SWPPP is realized through ongoing inspection and monitoring of the subject site as provided for under the City's established building permit and site inspection processes.

The Project Geotechnical Study in total indicates that the Project site is not located on a geologic unit or soil that is unstable, or that would become unstable as a result of the

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Project. Further, the Project would be required to comply with the requirements of a final City-approved geotechnical report, and applicable provisions of the Uniform Building Code (UBC) and California Building Code (CBC) that would act to minimize any unstable soils, unstable geologic units that may be encountered.

The Project site is currently provided sewer services. No septic tanks or other alternative wastewater disposal systems are proposed.

Based on the preceding, the Project would result in less-than-significant impacts, or have no impact, for the following geology and soils considerations:

- Exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; strong seismic ground shaking; seismic-related ground failure; or landslides;

- Substantial soil erosion or the loss of topsoil;

- Location on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;

- Location on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property; or

- Soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

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Hazards and Hazardous Materials

During the normal course of construction activities, there will be limited transport of potentially hazardous materials (e.g., gasoline, diesel fuel, paints, solvents, fertilizer, etc.) to and from the Project site. The Project is required to meet all City Hazardous Materials Management Plans and regulations addressing transport, use, storage and disposal of these materials.

There are no known or proposed schools located within one-quarter mile of the Project site. Accordingly, the Project would have no potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

The Project site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Neither would the Project potentially affect, or be affected by, off-site locations listed pursuant to Government Code Section 65962.5.

The Project does not propose or require designs or activities that would interfere with any identified emergency response or emergency evacuation plan. Emergency procedures or design features required by County, State and Federal guidelines will be implemented during construction and during operation of the Project. Temporary alterations to vehicle circulation routes associated with Project construction are addressed through City-mandated construction traffic management plans. Ongoing coordination with the local fire and police departments during construction will ensure that potential interference with emergency response and evacuation efforts are avoided.

The Project site is located in an urbanized area, with no proximate wildlands. Moreover, the Project site and surrounding areas are currently provided fire protection and emergency response services by the Moreno Valley Fire Department. Development fees and taxes paid by the Project act to offset its incremental demands for fire protection services.

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Based on the preceding, the Project would have no or less-than-significant impacts under the following considerations:

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and

- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Hydrology and Water Quality

The Project would be provided water service by the Eastern Municipal Water District (EMWD) water system, and does not propose or require direct groundwater withdrawals. The Project would not impinge on, nor would otherwise affect, designated recharge areas. Further, construction proposed by the Project will not involve substructures at depths or other subsurface features that would significantly impair or alter the direction or rate of flow of groundwater.

The Project site does not lie within an identified 100-year flood hazard zone, nor is housing proposed as part of the Project. Accordingly, the Project would have no impacts regarding placement of housing within a 100-year flood hazard area. The Project is not subject to potential inundation as the result of failure of any other known dam or levee. General Plan Safety Element, Figure 6-4, Fl*ood Hazards* indicates that the Project site is located outside the identified Lake Perris Dam Potential Inundation Area.

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The nearest body of water to the Project site is Lake Perris, located approximately 2.3 miles easterly of the Project site. The Project site is located approximately 40 miles easterly of coastal waters, and is approximately 1,470 feet above mean sea level. As such, the Project site is not subject to tsunami hazards. No slopes of significance have been identified on or near the Project site, and the Project site has not historically been affected by mudflows.

Based on the preceding discussion, the Project would result in less-than-significant impacts, or have no impact for the following hydrology and water quality considerations:

- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of the pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);

- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;

- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;

- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or

- Inundation by seiche, tsunami, or mudflow.

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Land Use

The Project site is located within an area designated for industrial uses, within an urbanized area of similar land uses. No established communities exist within the Project site, nor does the Project propose or require elements or operations that would divide an off-site community. Uses proposed by the Project are consistent with the site's current Business Park/Light Industrial General Plan Land Use designation; and the site's Industrial Zoning designation established under the MVIAP. No change in land use designation is required or proposed. The Project would therefore not conflict with City General Plan and Zoning policies and requirements.

The Project site is located within the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) area. The Project will be implemented consistent with the requirements of the MSHCP. The Project is not subject to the provisions of any other any habitat conservation plan or natural communities conservation plan.

Based on the preceding, the Project would have less-than-significant impacts for the following land use considerations:

- Physically divide an established community;

- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or

- Conflict with any applicable habitat conservation plan or natural communities conservation plan.

Mineral Resources

There are no mineral resources known to exist within the Project site that would be of value to the region and the residents of the state. As such, the Project would result in no impacts for the following mineral resources considerations:

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- Loss of availability of a known mineral resource that would be of value to the region and to the residents of the state; and

- Loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Noise

No private airstrips are located within the Project vicinity. As such, the Project would result in no impact for the following noise consideration:

- For a project within the vicinity of a private airstrip, expose people residing or working in the Project area to excessive noise levels.

Population and Housing

The Project does not propose residential development, nor would the Project otherwise induce substantial population growth in the area, either directly or indirectly. Development proposed by the Project site is consistent with that envisioned under the City General Plan; and the Project is located within an urbanized area that is already served by roadways, utilities, and other infrastructure. Therefore, development proposed by the Project, and any associated infrastructure improvements are unlikely to encourage unanticipated population growth.

Additionally, the General Plan Land Use designation of the Project site is Light Industrial/Business Park; Zoning for the site is Industrial. No housing exists within the Project site, and the Project does not propose uses or activities that would otherwise displace housing assets or persons.

On the basis of the preceding discussion, the Project would have less-than-significant or no impacts for the following population and housing considerations:

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- Induce substantial population growth in the area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure);

- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; and

- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Public Services, Recreation

Employment opportunities created by the Project may result in increased secondary impacts to school and park facilities. Both the Moreno Valley Unified School District (MVUSD) and the Val Verde Unified School District (VVUSD) provide educational facilities and services to the City of Moreno Valley. Increased student population could result from requests for Intra-District Transfers from employees of the Project wanting to enroll their children in schools closer to their place of employment. Yet any impacts from such school transfers would be minimal. The Project does not propose elements (e.g., residential development) that would result in substantial increased demands for neighborhood or regional parks or other recreational facilities. The Project would pay required school impact fees, acting to offset any incremental effects to area school services and school facilities.

Development of the Project would require established public agency oversight including, but not limited to, plan check and permitting actions by the City Planning Division, City Public Works Department, Moreno Valley Police Department, and the Moreno Valley Fire Department. These actions typically fall within routine tasks of these agencies and are paid for via plan check and inspection fees.

Based on the preceding, the Project would have less-than-significant or no impacts for the following public services and recreation considerations:

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- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities;

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial deterioration of the facility would occur or be accelerated; and

- Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

Transportation/Traffic

The Project does not propose elements or aspects that would obstruct or restrict emergency access to or through the area. Nor does it propose elements that would conflict with adopted alternative transportation policies. On a long-term basis, the Project may result in increased demand for public transportation as light industrial employment opportunities become available onsite. Affected transit agencies routinely review and adjust their ridership schedules to accommodate public demand. The need for transit-related facilities, including but not limited to bus shelters and bicycle parking, would be coordinated between the City and the Project Applicant, with input from transit providers as applicable, as part of the City's standard development review process.

On this basis, the Project would have less-than-significant impacts for the following potential transportation considerations:

- Result in inadequate emergency access; or

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- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Utilities and Service Systems

All necessary public services, infrastructure systems, and utilities are currently available to the Project site. No major new infrastructure or utilities improvements are proposed by the Project, nor are any required. The Project will implement necessary utilities improvements to include connections to existing services, and/or necessary realignment or modification of existing service lines. All connections to, and modification of, utilities necessary to serve the Project will be accomplished consistent with City and purveyor requirements. As discussed in the Initial Study, the Project would have less-than-significant impacts in regard to the following considerations:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;

- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;

- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;

- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;

- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;

- Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs; and

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- Comply with federal, state, and local statutes and regulations related to solid waste.

1.7 AREAS OF CONCERN OR CONTROVERSY

Section 15123 of the *CEQA Guidelines* requires that the EIR summary identify areas of potential concern or controversy known to the lead agency, including issues raised by other agencies and the public. Issues of concern were identified by the Lead Agency, through responses to the Project Initial Study/Notice of Preparation (NOP), and other communications addressing the Project and the Project EIR.

Responses received pursuant to distribution of the NOP and Public Scoping Meeting are presented at EIR Appendix A. Table 1.7-1 presents a list of NOP respondents, and a corresponding summary of NOP comments, indicated by *italicized text*. Responses to comments, together with correlating EIR references are indicated in subsequent statements. Unless otherwise noted, all NOP respondent comments are addressed within the body of the EIR.

Table 1.7-1
List of NOP Respondents and Summary of NOP Comments

Respondent	Summary of Comments
State Agencies	
State of California Office of Planning and Research, State Clearinghouse (SCH)	*SCH provided receipt and record of distribution of the NOP/IS and established the NOP review and comment period of March 14, 2016 through April 12, 2016.* EIR Appendix A includes a copy of the Project IS/NOP and all NOP responses.
State of California Department of Transportation, District 8 (Caltrans)	*Caltrans provides detailed guidance for preparation of the Project Traffic Impact Analysis (TIA), to include evaluation of potential impacts to the State Highway System (SHS). Contact information is also provided.* The Project Traffic Impact Analysis (TIA, EIR Appendix C) was prepared pursuant to applicable Caltrans Guidelines. Topics referenced by Caltrans in their NOP Response are addressed at Draft EIR Section 4.2, *Transportation/Traffic*.

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Table 1.7-1
List of NOP Respondents and Summary of NOP Comments

Respondent	Summary of Comments
State of California Native American Heritage Commission (NAHC)	*The NAHC response provides procedural guidance in determining the Project's potential to impact cultural resources.* As discussed at EIR Section 4.8, *Cultural Resources*, a comprehensive Cultural Resources Investigation was conducted for the Project site, and no cultural resources were identified within the Project site or vicinity. To avoid impacts to potential historic, prehistoric, or paleontological (fossil) resources that may be present onsite in a buried context, EIR mitigation measures require monitoring by a professional archaeologist during earth-moving activities; appropriate disposition of any recovered artifacts; and provisions for discovery of any Native American human remains. Representatives of the appropriate Indian tribes shall also be consulted with respect to the treatment of these resources, should they be discovered.
Regional and County Agencies	
Department of Toxic Substances Control (DTSC)	*DTSC (Department) notes that the Department is currently working with several other agencies to address groundwater contamination located east of the March Air Reserve Base; therefore, DTSC recommends that the Draft EIR address groundwater contamination.* Groundwater contamination associated with March Air Reserve Base/Inland Port Airport (MARB/IPA) has been recorded by several governmental databases. Remediation efforts are currently underway at March ARB/IPA to address this concern. MARB/IPA groundwater contamination concerns are specifically addressed in the Project Phase I Environmental Assessment (Phase I ESA, EIR Appendix F) and are determined unlikely to be an environmental concern at the Project site (Phase I ESA, p.1). Moreover, it is unlikely that former occupancies of the Project site have substantively contributed to existing groundwater contamination concerns (Phase I ESA, p. 2). The Project does not propose uses or activities that would affect, or be affected by, underlying groundwaters or groundwater contamination that may exist at March ARB/IPA. Please refer also to the Project Phase I ESA.
Eastern Municipal Water District (EMWD)	*EMWD's NOP response identifies the Project site as being within the agency's service area, and provides submittal requirements in regard to obtaining water and sewer service from EMWD. Additionally, contact information is provided.* The EIR has identified EMWD as the Project's provider of water and sewer service. Coordination in regard to the specific submittal requirements would be conducted subsequent to the Project's approval.
Riverside County Flood Control and Water Conservation District (RCFCWCD)	*RCFCWCD (District) notes that the Project would not be impacted by District Master Drainage Plan (MDP) Facilities, or other drainage facilities of regional interest. The District further outlines drainage fee requirements that would apply to the Project.* *The District presents general information addressing National Pollutant Discharge Elimination System (NPDES), Federal Emergency Management Agency (FEMA), California Department of Fish and Wildlife (CDFW), Clean Water Act (CWA), and Army Corps of Engineers (ACOE) requirements and responsibilities.*

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Table 1.7-1
List of NOP Respondents and Summary of NOP Comments

Respondent	Summary of Comments
	The Project would comply with all District drainage fee requirements pursuant to the Lead Agency Conditions of Approval. Applicable federal, state, and local regulatory requirements addressing hydrology, stormwater management, natural watercourses and related concerns are discussed within the EIR. Please refer to EIR Section 4.6, Hydrology/Water Quality and Section 4.7, Biological Resources.
South Coast Air Quality Management District (SCAQMD)	*SCAQMD provides detailed guidance in regard to the preparation of the Project air quality impact analysis and greenhouse gas analysis, and requests that modeling data and electronic copies air quality technical studies accompany submittal of the Draft EIR to SCAQMD.* The Project Air Quality Impact Analysis and Greenhouse Gas Analysis are presented at EIR Appendices C and D, respectively. Specific topics referenced by SCAQMD in their NOP response are addressed at EIR Section 4.2, *Air Quality*; and EIR Section 4.3, *Global Climate Change and Greenhouse Gas Emissions*. Modeling data files, technical studies and supporting air quality documentation have been provided to SCAQMD in electronic format(s) as requested.
Southern California Association of Governments (SCAG)	*SCAG requests that the Draft EIR include an analysis of the Project's consistency with goal statements articulated in SCAG 2016 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS).* The Lead Agency appreciates SCAG participation in the CEQA process. As noted in the SCAG NOP Response, SCAG EIR RTP/SCS consistency analyses are appropriately directed to projects of regional significance. The instant Project is not regionally significant per criteria outlined at *CEQA Guidelines* Section 15206, accordingly an RTP/SCS consistency analysis is not provided.
Individuals and Local Agencies	
Johnson and Sedlack	*The commentor requests various topical issues be evaluated in the EIR.* Topical issues evaluated in this EIR are listed at Section 1.8, *EIR Topical Issues*. Please refer also to correlating topical Sections within this EIR.
Pechanga Band of Luiseno Indians	*The Pechanga Band requests "to be notified and involved in the entire CEQA environmental review process for the duration of the…project."* The City acknowledges the request of the Pechanga Band of Luiseno Indians for consultation, and will work with tribal representatives to this end, pursuant to all applicable regulations. Additionally, as requested, the Pechanga Band of Luiseno Indians will be added to the City's list of organizations receiving notifications of public meetings and information related to the proposed Project.
San Manuel Band of Mission Indians	*The commentor states that the Project site is located outside of their Tribe's ancestral territory.* The City appreciates the commentor's review of the Project Initial Study. No response is required.

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1.8 EIR TOPICAL ISSUES

Based on the Initial Study analysis, and comments received pursuant to circulation of the NOP, the EIR analyses have been focused on the following topics:

- Air Quality;
- Biological Resources;
- Cultural Resources/Tribal Cultural Resources;
- Greenhouse Gas (GHG) Emissions/Global Climate Change;
- Hazards and Hazardous Materials;
- Hydrology/Water Quality;
- Noise; and
- Transportation/Traffic.

Additionally, EIR Section 5.0, *Other CEQA Considerations*, presents discussions of other mandatory CEQA topics, including:

- Cumulative Impact Analysis;
- Alternatives Analysis;
- Growth-Inducing Impacts of the Proposed Action;
- Significant Environmental Effects;
- Significant and Irreversible Environmental Changes; and
- Energy Conservation.

1.9 SUMMARY OF SIGNIFICANT PROJECT IMPACTS

Implementation of the Project as proposed would result in certain impacts which are determined to be significant. These impacts are discussed in detail in the body of the EIR text under their associated topical headings, and are summarized below.

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Summary of Significant and Unavoidable Impacts

Environmental Consideration	Comments
Traffic	

The Project would construct, or pay required fees toward, completion of all necessary Study Area transportation/traffic system improvements. At the significantly-impacted locations noted below, the Project cannot feasibly construct the required improvements, and/or payment of fees would not assure their timely completion.

Cumulatively Significant Impacts

Intersections

Pending completion of required improvements, the Project's incremental contributions to Opening Year Conditions cumulative traffic impacts at or affecting the following intersections are considered cumulatively significant and unavoidable:

Intersection ID No.	Intersection Location
1	I-215 SB Ramps/Harley Knox Blvd.
2	I-215 NB Ramps/Harley Knox Blvd.
3	Western Way / Harley Knox Blvd.
4	Patterson Ave. / Harley Knox Blvd.
7	Indian St. / Grove View Rd.
10	Indian St. / Harley Knox Blvd.

Roadway Segments

Pending completion of required improvements, the Project's incremental contributions to Opening Year Conditions cumulative traffic impacts at or affecting the following roadway segments are considered cumulatively significant and unavoidable:

Roadway Segment ID No.	Roadway	Segment Limits
2	Harley Knox Blvd.	I-215 NB Ramps to Western Way
3	Harley Knox Blvd.	East of Western Way
4	Harley Knox Blvd.	West of Patterson Ave.
9	Indian St.	South of Nandina Ave.
10	Indian St.	North of Grove View Rd.
11	Indian St.	South of Grove View Rd.

Freeway Facilities

Pending completion of required improvements, the Project's incremental contributions to Opening Year Cumulative traffic impacts at or affecting the following freeway facilities are considered cumulatively significant and unavoidable:

	Freeway Segment
1	I-215, Northbound, University Avenue to Martin Luther King Boulevard
2	I-215, Northbound, Box Springs Road to SR-60/I-215 Freeway
3	I-215, Northbound, Eucalyptus Avenue to Alessandro Boulevard

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Summary of Significant and Unavoidable Impacts

Environmental Consideration	Comments
	4 I-215, Northbound, Ramona Expressway to Nuevo Road 5 I-215, Southbound, Eucalyptus Avenue to Alessandro Boulevard 6 I-215, Southbound, Ramona Expressway to Nuevo Road 7 SR-91, Westbound, Riverwalk Parkway to Magnolia Avenue
Air Quality	
	Project-Specific Significant Impacts **Operational-Source Pollutant Emissions Exceedances** Even after compliance with South Coast Air Quality Management District (SCAQMD) rules and regulations, and the application of EIR mitigation measures, operational pollutant emissions would exceed applicable SCAQMD regional emission thresholds for NO_x. These impacts are therefore individually significant. **Cumulatively Significant Impacts** **Operational-Source Pollutant Emissions Exceedances** Project-specific operational-source NO_x emissions exceedances are cumulatively significant over the life of the Project. **Non-Attainment Area Impacts** Project operational source NO_x emissions exceedances (NO_x is an ozone precursor; NO_x is also a $PM_{10}/PM_{2.5}$ precursor), in combination with NO_x emissions generated by other sources affecting the SCAB ozone and $PM_{10}/PM_{2.5}$ non-attainment areas, would result in a cumulatively considerable net increase in ozone and $PM_{10}/PM_{2.5}$ within the non-attainment areas. These are cumulatively significant impacts.
Greenhouse Gases/Global Climate Change	
	Project-Specific Impacts Project GHG emissions would individually exceed the 10,000 MTCO2e/year GHG emissions threshold employed by the City. Project GHG emissions would also not conform to State GHG emissions reductions targets established under AB32. **Cumulatively Significant Impacts** Project-specific GHG emissions exceedances would be cumulatively considerable in the context of existing GHG emissions levels and GHG emissions that would be generated by other known or probable GHG emissions sources.

All other potential environmental effects of the Project are determined to be less-than-significant as substantiated within this EIR and accompanying Initial Study, or are reduced below levels of significance with application of mitigation measures

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identified herein. A summary of all Project impacts and proposed mitigation measures is presented at EIR Section 1.11, *Summary of Impacts and Mitigation Measures*.

1.10 ALTERNATIVES TO THE PROJECT

Consistent with provisions of the *CEQA Guidelines*, the EIR Alternatives Analysis (EIR Section 5.3) presents and evaluates alternatives to the Project that would lessen its significant environmental effects while allowing for attainment of the basic Project Objectives. The rationale underlying the selection of alternatives is presented together with a summary description of each alternative. Merits of the alternatives compared with the Project are described and evaluated. Alternatives considered in this EIR include:

- CEQA-mandated "No Project" Alternative;
- Alternative Sites;
- "No Threshold Exceedance" Alternative for Significant Traffic Impacts;
- "No Threshold Exceedance" Alternative for Significant Air Quality Impacts;
- Reduced Intensity Alternative.

The above-listed Alternatives are summarized below, and are described in greater detail at Section 5.3.2, *Description of Alternatives*.

1.10.1 No Project Alternative

Overview

The *CEQA Guidelines* specifically require that the EIR include in its evaluation a No Project Alternative. The No Project Alternative should make a reasoned assessment as to future disposition of the subject site should the Project under consideration not be developed. In this latter regard, the *CEQA Guidelines* state in pertinent part:

> If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the "no project" alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property

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> remaining in its existing state against environmental effects which would occur if the project is approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this "no project" consequence should be discussed. In certain instances, the no project alternative means "no build" wherein the existing environmental setting is maintained. However, where failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment (*CEQA Guidelines*, Section 15126.6 (e)(3)(b)).

No Project/No Build Alternative

In this instance, development of the subject site is substantively defined by Moreno Valley Industrial Area Plan (MVIAP). The No Project Alternative would be required to conform to land uses approved for, and overarching performance standards and development regulations established under, the MVIAP. It is therefore considered unlikely that the subject site would remain vacant or in a "No Build" condition. That is, failure to proceed with the Project would not result in preservation of existing environmental conditions, and the practical result of the Project's non-approval would be the development of the subject site with some other variety or configuration of approved Specific Plan land uses.

Any development of the subject site under a No Project Alternative would therefore likely be materially consistent with the Project, though internal land use configurations, development intensities, and specific uses may be realigned within the constraints and allowances of the MVIAP. Environmental impacts resulting from development of the subject site under a No Project Alternative would likely therefore be comparable to those occurring under the Project.

If, however, development of the subject site was significantly delayed by economic, political, or other outside influences, existing environmental conditions would likely prevail, and in most instances, environmental impacts would be reduced when

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compared to the Project. To provide an analysis differentiated from that presented within the body of this EIR, the No Project Alternative considered herein is assumed to represent a "No Build" condition.

1.10.2 Reduced Intensity Alternative-Indian Street Commerce Center Land Uses

As detailed at EIR Section 4.3, *Global Climate Change and Greenhouse Gas Emissions*, Project GHG emissions would exceed the 10,000 MTCO2e/year GHG emissions threshold employed by the City of Moreno Valley. The Project's GHG emissions threshold exceedances constitute individually and cumulatively significant air quality impacts.

More specifically, even after application of all feasible mitigation measures, Project GHG emissions would result in exceedances of applicable City thresholds, as summarized below.

- Project Operational GHG emissions = 12,154.98 MTCO2e/year
  City of Moreno Valley threshold = 10,000 MTCO2e/year
  (City of Moreno Valley threshold = approximately 83 percent of Project Operational GHG emissions)

In order to achieve the 10,000 MTCO2e threshold established by the City, the Project GHG emissions would need be reduced from 12,154.98 MTCO2e/year to less than 10,000 MTCO2e/year; or by approximately 17 percent or greater.

Vehicular sources account for approximately 89 percent of the Project GHG emissions, the remaining 11 percent resulting from various on-site stationary/area sources. In order to achieve meaningful reductions in Project GHG emissions, correlating reductions in Project traffic generation would therefore be required.

Project GHG emissions could be reduced to levels that are less-than-significant through a reduction in the Project scope that would sufficiently reduce vehicular trips and associated vehicular-source GHG emissions. Such a reduction in operational-source

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emissions would also decrease the Project's contributions to cumulative GHG emissions impacts to levels that are less-than-significant.

1.10.3 Alternative Sites Considered and Rejected

As stated in the *CEQA Guidelines* §15126.6 (f)(1)(2)(A), the "key question and first step in [the] analysis [of alternative locations] is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR." *Guidelines* §15126.6 (f)(1) also provides that when considering the feasibility of potential alternative sites, the factors that may be taken into account are "site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context) and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). None of these factors establishes a fixed limit on the scope of reasonable alternatives."

The Project considered herein is not subject to relocation to an alternative site. That is, the Project is in large part defined by its location and implements a location-specific portion of the land uses and development approved under MVIAP. At a different location, the development would be something other than the Project considered here. Moreover, relocation of the Project would compromise the fundamental Project Objectives and would not avoid or substantively reduce the Project's significant environmental impacts. Based on the preceding considerations, the analysis of an Alternative Site was not further considered.

1.10.4 "No Threshold Exceedance" Alternative for Significant Traffic Impacts Considered and Rejected

Specific improvements identified in the Project TIA (EIR Appendix B) and summarized at Draft EIR Section 4.1 would provide a physical solution to identified potentially significant cumulative traffic impacts. Project mitigation responsibilities at affected Study

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Area facilities would be satisfied through fee payments directed to completion of the required improvements. Notwithstanding, Project fee payments would not ensure timely implementation of improvements required as mitigation for potentially significant cumulative traffic impacts, and impacts are therefore considered cumulatively significant and unavoidable pending completion of the required improvements.

Any measurable additional traffic contributed to the above-noted facilities would result in cumulatively significant traffic impacts similar to those occurring under the Project, requiring some manner of currently infeasible mitigation. In that any viable development of the subject site would generate trips likely affecting some or all of the above-referenced facilities, an alternative to the Project developed specifically to alleviate cumulatively significant traffic impacts at Study Area intersections and freeway facilities was not further evaluated. Notwithstanding, the Reduced Intensity Alternative considered herein would act to generally reduce traffic volumes within the Study Area and would likely diminish the magnitude of traffic impacts; but would not avoid cumulatively significant traffic impacts affecting Study Area faculties.

1.10.5 "No Threshold Exceedance" Alternative for Project Significant Air Quality Impacts Considered and Rejected

As presented at EIR Section 4.2, *Air Quality*, Project maximum daily operational-source NO_x emissions would exceed SCAQMD regional thresholds for NO_x. The Project's operational-source NO_x emissions threshold exceedances constitute individually and cumulatively significant air quality impacts. Because NO_x is a precursor to ozone and to $PM_{10}/PM_{2.5}$, Project operational-source NO_x emissions exceedances would result in a cumulatively considerably net increase in ozone and $PM_{10}/PM_{2.5}$ within a region designated as non-attainment for ozone and $PM_{10}/PM_{2.5}$.

More specifically, even after application of all feasible mitigation measures, Project operational-source NO_x emissions would result in exceedances of applicable SCAQMD regional thresholds, as summarized below. Maximum impact summer/winter seasonal conditions are reflected in these discussions.

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- Total Mitigated Project Operational NO_x emissions = 190.61 pounds per day
  SCAQMD threshold = 55 pounds per day
  (SCAQMD threshold = approximately 29 percent of Project Operational NO_x emissions)

Project operational-source NO_x emissions would need to be reduced from 190.61 pounds per day to less than 55 pounds per day, or by a minimum of 71 percent, in order to achieve the SCAQMD regional threshold for operational-source NO_x emissions.

Vehicular sources account for approximately 98 percent of the Project operational-source NO_x emissions, the remaining 2 percent resulting from various on-site stationary/area sources. In order to achieve meaningful reductions in Project operational-source NO_x emissions, correlating reductions in Project traffic generation would therefore be required.

The Project's operational-source air pollutant NO_x emissions could therefore be reduced to levels that are less-than-significant through a minimum 71 percent reduction in the Project scope; sufficient to reduce vehicular trips and associated vehicular-source NO_x emissions below SCAQMD thresholds. Such a reduction in operational-source emissions would also decrease the Project's contributions to cumulative NO_x air quality impacts to levels that are less-than-significant.

At a 71 percent reduction in scope however, the resulting development would fundamentally not be the Project considered herein; and the Project Objectives would not be realized in any meaningful sense. As such, potential alternatives with the specific goal of avoiding all significant operational-source NO_x emissions impacts resulting from the Project were rejected from consideration, and were not further evaluated. Notwithstanding, in achieving the GHG emissions thresholds for the Project, the Reduced Intensity Alternative considered herein would also act to diminish Project operational source NO_x emissions. Operational-source NO_x emissions exceedances otherwise occurring under the Project would however remain significant and unavoidable.

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1.10.6 Environmentally Superior Alternative

For the purposes of CEQA, the EIR Alternatives Analysis has identified the Reduced Intensity Alternative as the environmentally superior alternative. Please refer also to EIR Section 5.3 for the complete Alternatives Analysis.

1.11 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 1.11-1 summarizes potential impacts resulting from implementation and operations of the Project. The impacts identified at Table 1.11-1 correspond with environmental topics and impacts discussed at EIR Section 4.0, *Environmental Impact Analysis*. Table 1.11-1 also lists measures proposed to mitigate potentially significant environmental impacts of the Project, and indicates the level of significance after application of proposed mitigation.

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Table 1.11-1
Summary of Impacts and Mitigation

General Note: *To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit.*

Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.1 Traffic and Circulation			
Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	**Existing Conditions** Less-Than-Significant **Opening Year Conditions** Potentially Significant	*4.1.1 Prior to the issuance of building permits, the Project Applicant shall pay requisite fees toward the construction of Year 2020 improvements as indicated at following Table 4.1-9 and summarized at Table 4.1-12 and illustrated at Figure 4.1-9 at the conclusion of this Section.*	**Cumulatively Significant and Unavoidable.**
Conflict with an applicable congestion management program, including, but not limited to a level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.	Potentially Cumulatively Significant at Study Area Intersection No.'s 1 and 2.	*Please refer to previous Mitigation Measure 4.1.1.*	**Cumulatively Significant and Unavoidable.**
Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Less-Than-Significant	No mitigation is required	Not Applicable

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Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	Less-Than-Significant	No mitigation is required	Not Applicable
4.2 Air Quality			
Conflict with or obstruct implementation of the applicable air quality plan.	Less-Than-Significant	No mitigation is required.	Not Applicable
Violate any air quality standard or contribute substantially to an existing or projected air quality violation.	Potentially Significant (Exceedance of SCAQMD regional thresholds for VOC and NOx during construction. Additionally, Project operational-source NOx emissions would exceed applicable SCAQMD regional thresholds.) Potentially Significant (PM_{10} emissions concentrations)	4.2.1 *The following requirements shall be incorporated into Project plans and specifications in order to ensure implementation of SCAQMD Rule 403 and limit fugitive dust emissions:* • *All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour;* • *The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day; and* • *The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are limited to 15 miles per hour or less.* 4.2.2 *Grading plans shall reference the requirement that a sign shall be posted on-site stating that*	Construction-source emissions: Less-Than-Significant. Implementation of Mitigation Measures 4.2.1 through 4.2.4 would reduce Project construction-source air pollutant emissions in aggregate, and in so doing would also achieve SCAQMD regional thresholds for VOC and NOx. Operational-source emissions: Even after implementation of the Mitigation Measures 4.2.5, Project operational-source NOx emissions exceedances would persist. Individually and cumulatively, these are significant and unavoidable air quality impacts.

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Table 1.11-1
Summary of Impacts and Mitigation

General Note: *To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit.*

Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
		construction workers need to shut off engines at or before five minutes of idling. This requirement is based on the California Air Resources Board regulation in Title 13, Chapter 10, Section 2485, Division 3 of the California Code of Regulations, which imposes a requirement that heavy duty trucks not idle for greater than five (5) minutes at any location. 4.2.3 *All off-road diesel-powered construction equipment ≥ 150 hp shall meet California Air Resources Board (CARB) Tier 4 emission standards.* 4.2.4 *Only "Zero-Volatile Organic Compounds" paints (no more than 50 grams/liter of VOC) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used.* 4.2.5 *The following requirements shall be incorporated into Project plans and specifications:* • *Any gasoline-powered cargo-handling equipment shall be equipped with catalytic converters.* • *Install signs stating that the idling of trucks shall not exceed three minutes.* • *Provide preferential parking locations for EVs, CNG vehicles, and carpool/vanpool vehicles.*	With application of Mitigation Measures 4.2.1 through 4.2.3, Project construction-source LST impacts would be less-than-significant.

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General Note: *To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit.*

Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
Expose sensitive receptors to substantial pollutant concentrations.	Less-Than-Significant	No mitigation is required.	Not Applicable
Cumulative Air Quality Impacts			
Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard, including releasing emissions which exceed quantitative thresholds for ozone precursors.	Potentially Cumulatively Significant	Please refer to previous Mitigation Measure 4.2.5.	**Cumulatively Significant.** Mitigation Measure 4.2.5 would reduce Project-source air pollutant emissions, including NOx emissions, to the extent feasible. The Project would also comply with all applicable SCAQMD Rules and would be required to comply with development standards and energy efficiency performance standards established by the City of Moreno Valley.
4.3 Global Climate Change and Greenhouse Gas Emissions			
Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	Potentially Significant	Please refer to previous discussion of GHG emissions reduction attributes and programs incorporated in the Project. No further feasible measures are available that would substantively mitigate the Project's operational-source GHG emissions.	**Significant and Unavoidable.**
Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Potentially Significant	Please refer to previous discussion of GHG emissions reduction attributes and programs incorporated in the Project. No further feasible measures are available that would substantively mitigate the Project's operational-source GHG emissions.	**Significant and Unavoidable.**

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General Note: *To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit.*

Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.4 Noise			
Construction activities and associated noise would result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Less-Than-Significant	No mitigation is required.	Not Applicable
Construction activities and associated noise would result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.	Less-Than-Significant	No mitigation is required.	Not Applicable
Construction activities and associated noise would result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.	Less-Than-Significant	No mitigation is required.	Not Applicable
Vehicular-source noise would result in exposure of persons to, or generation of, noise levels in excess of standards established in the City's General Plan or Noise Ordinance, or other applicable standards of other agencies.	Less-Than-Significant	No mitigation is required.	Not Applicable
Vehicular-source noise would result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.	Less-Than-Significant	No mitigation is required.	Not Applicable

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Table 1.11-1
Summary of Impacts and Mitigation

General Note: *To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit.*

Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
Vehicular-source noise would result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.	Less-Than-Significant	No mitigation is required.	Not Applicable
Project operational noise would result in exposure of persons to, or generation of, noise levels in excess of standards established in the City's General Plan or Noise Ordinance.	Less-Than-Significant	No mitigation is required.	Not Applicable
Project operational noise would result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.	Less-Than-Significant	No mitigation is required.	Not Applicable
Project operational noise would result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.	Less-Than-Significant	No mitigation is required.	Not Applicable
Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise.	Less-Than-Significant	No mitigation is required.	Not Applicable
For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the Project area to excessive noise levels.	Less-Than-Significant	No mitigation is required.	Not Applicable

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Table 1.11-1
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General Note: *To facilitate coordination and effective implementation of mitigation measures, the mitigation measures provided herein shall appear on all grading plans, construction specifications, and bid documents. Incorporation of required notations shall be verified by the City prior to issuance of first development permit.*

Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.5 Hazards/Hazardous Materials			
Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Potentially Significant	*4.5.1 All plans, construction documents, and contracts shall contain the following or similar language: Contractors and developers are advised that underground Transite pipelines may be encountered within the Project site. If encountered, these features shall be documented and evaluated by a licensed environmental hazards remediation consultant/contractor. A final report of Transite pipe hazards encountered (if any) and associated remedial actions (if any) shall be submitted to the City. Abatement/disposal of asbestos resulting from removal of Transite pipelines shall be accomplished as detailed at EIR Section 4.5.4, Hazardous Waste Handling.*	Less-Than-Significant
Result in a safety hazard for people residing or working in the project area for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, or within the vicinity of an airstrip.	Less-Than-Significant	No mitigation is required.	Not Applicable
4.6 Hydrology and Water Quality			
Violate any water quality standards or waste discharge requirements.	Less-Than-Significant	No mitigation is required.	Not Applicable
Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase	Less-Than-Significant. Mitigation Measures 4.6.1 and 4.6.2 are incorporated to ensure	*4.6.1 Prior to grading plan approval and the issuance of a grading permit by the City of Moreno Valley, the Project Applicant shall provide evidence to the City that a notice of intent (NOI) has been filed with the*	Less-Than-Significant

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Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
the rate or amount of surface runoff in a manner which would result in flooding or substantial erosion or siltation on- or off-site; or create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or otherwise substantially degrade water quality.	timely monitored compliance with Project SWPPP, WQMP, NPDES, and SARWQCB requirements.	*Regional Water Quality Control Board for coverage under the State NPDES General Construction Permit for discharge of stormwater associated with construction activities. The SWPPP shall identify Best Management Practices (BMPs) intended to prevent the release of sediment and pollutants into downstream waterways. Examples of construction BMPs to be incorporated in the Project include, but are not limited to, the following:* • *Silt Fences;* • *Check Dams;* • *Gravel Bag Berms;* • *Street Sweeping and Vacuuming;* • *Sand Bag Barriers;* • *Storm Drain Inlet Protection;* • *Wind Erosion Control;* • *Stabilized Construction Entrance/Exit; and* • *Entrance/Outlet Tire Wash.* *Post-construction BMPs to reduce sediments and other pollutants include, but are not limited to, the following:* • *Providing permanent cover to stabilize the disturbed surfaces after construction has been completed;* • *Incorporating structural BMPs (e.g., grease traps, debris, screens, continuous deflection separators, oil/water separators, drain inlet inserts) into the Project's design to provide detention and filtering of contaminants in urban runoff prior to discharge to stormwater facilities;*	

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Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
		• *Precluding non-stormwater discharges to the stormwater system; and* • *Performing monitoring of discharges to the stormwater system.* *4.6.2 Prior to the issuance of grading permits, the Project Applicant shall submit a final Water Quality Management Plan (WQMP) to the City of Moreno Valley. The WQMP shall identify Best Management Practices (BMPs) addressing all post-construction pollutant discharges. Examples of BMPs included in the Project's Preliminary WQMP include the following:* <u>Source Control/Non-Structural BMPs</u> • *Education of property owners, operators, tenants, occupants, or employees;* • *Street Sweeping of Private Streets and Parking Lots;* • *Drainage facility inspection and maintenance;* • *Roof Runoff Controls;* • *Efficient Irrigation;* • *Protection of Slopes and Channels;* • *Storm Drain stenciling and signage;* • *Trash Storage Areas and Litter Control;* • *Irrigation system and landscape maintenance; and* • *Loading dock drainage controls.* <u>Site Design/Structural BMPs</u> • *Maximize permeable areas;* • *Minimize street, sidewalk, and parking lot aisle*	

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Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
		widths; • *Maintain natural drainage patterns;* • *Incorporate drought-tolerant landscaping;* • *On-site ponding areas or retention facilities to increase opportunities for infiltration;* • *Convey roof runoff to landscaping/permeable areas prior to discharge to storm drains;* • *Drain sidewalks and walkways to adjacent landscaped areas; and* • *Integration of landscaping and drainage designs.*	
4.7 Biological Resources			
Substantially affect, either directly or through habitat modifications, any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife (CDFW, formerly California Department of Fish and Game) or United States Fish and Wildlife Service (USFWS).	Potentially Significant (impacts to nesting birds and the burrowing owl).	*4.7.1 To avoid impacts to nesting birds and to comply with the federal Migratory Bird Treaty Act of 1918 (MBTA):* • *If possible, all vegetation removal activities shall be scheduled from August 1 to February 15, which is outside the nesting season. This would ensure that no active nests would be disturbed and that removal could proceed rapidly.* • *If vegetation is to be cleared during the nesting season (February 15 – July 31), all suitable habitat shall be thoroughly surveyed for the presence of nesting birds by a qualified biologist 72 hours prior to clearing. If any active nests are detected, the area shall be flagged and mapped on the construction plans along with a minimum 50-foot buffer and up to 300 feet for raptors, with the final buffer distance to be determined by the qualified*	Less-Than-Significant

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Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
		biologist. The buffer area shall be avoided until the nesting cycle is complete or it is determined that the nest has failed. In addition, the biologist will be present on the site to monitor the vegetation removal to ensure that any nests, which were not detected during the initial survey, are not disturbed. *4.7.2 Within 30 days prior to grading, a qualified biologist shall conduct a Project site survey and make a final determination regarding the presence or absence of the burrowing owl. The determination shall be documented and shall be submitted, reviewed, and accepted by the City of Moreno Valley Planning Division prior to the issuance of a grading permit. Survey documentation shall incorporate following provisions:* • *In the event that the pre-construction survey identifies no burrowing owls on the property, a grading permit may be issued without restriction.* • *In the event that the pre-construction survey identifies the presence of burrowing owl(s,) the Applicant shall implement incumbent CDFW burrowing owl mitigation protocols.*	
Have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or California plans, policies or	Less-Than-Significant	No mitigation is required.	Not Applicable

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Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
regulations or by the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS); Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.			
Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.	Less-Than-Significant	No mitigation is required.	Not Applicable
4.8 Cultural Resources			
Cause a substantial adverse change in the significance of historic and archaeological resources as defined in §15064.5.	Less-Than-Significant	No mitigation is required.	Not Applicable
Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Potentially Significant	*4.8.1 Any excavation exceeding five feet below the current grade shall be monitored by a qualified paleontological monitor. If older alluvial deposits are encountered in shallower contexts, monitoring should be initiated once these deposits area encountered. The paleontological monitoring program should follow the local protocols of the*	Less-Than-Significant

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Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
		Western Center (Hemet) and a paleontological monitoring plan should be developed prior to the ground altering activities. The extent and duration of the monitoring can be determined once the grading plan is understood and approved.	
Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074.	Potentially Significant	*4.8.2 If previously unidentified prehistoric/Native American resources are identified, a qualified archaeologist must be notified and, in consultation with the local Native American representative(s), be recovered and analyzed in accordance with CEQA guidelines, and curated at the University of California, Riverside, Archaeological Research Unit; the Western Center; or with the appropriate Native American repository (e.g., Pechanga facility in Temecula). In addition, an archaeological monitoring program should be initiated and continued until the archaeological consultant concludes the program is no longer necessary.*	Less-Than-Significant

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2.0 INTRODUCTION

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2.0 INTRODUCTION

2.1 OVERVIEW

This Draft Environmental Impact Report (Draft EIR, DEIR, EIR) evaluates and discloses potential environmental impacts of the proposed Indian Street Commerce Center (the Project). In summary, the Project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. As currently proposed, 347,080 square feet of the Project building area would be allocated for distribution warehouse uses; 89,270 square feet would be assigned to manufacturing uses; and 10,000 square feet would be assigned to office uses. The Project is further described at Draft EIR Section 3.0, *Project Description*.

An EIR is an informational document intended to apprise decision-makers and the general public of potentially significant environmental impacts of a project. An EIR also proposes mitigation to preclude or minimize significant impacts, and describes reasonable alternatives to the Project that may also reduce or avoid significant impacts. Having the authority to take action on the Project, the City of Moreno Valley will consider the information in this EIR in their evaluation of the proposal. Findings and conclusions of the EIR do not control the City's discretion to approve, deny, or modify the Project, but instead are presented as information to aid the decision-making process.

2.2 AUTHORIZATION

This EIR has been prepared by the City of Moreno Valley pursuant to *Guidelines for the Implementation of the California Environmental Quality Act (Guidelines)*, (§§ 15000–15387, California Code of Regulations). The proposed Indian Street Commerce Center is a "project," as defined at § 15378 of the *Guidelines*. The *Guidelines* stipulate that an EIR must be prepared for any project that may have a significant impact on the environment. The City has determined that the Project may have one or more

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significant impacts on the environment and, therefore, the preparation of an EIR is required.

2.3 LEAD AND RESPONSIBLE AGENCIES

CEQA defines a "lead agency" as the public agency which has the principal responsibility for carrying out or approving a Project which may have a significant effect upon the environment. Other agencies, e.g., the California Department of Transportation (Caltrans), the South Coast Air Quality Management District (SCAQMD) or the Regional Water Quality Control Board (RWQCB), which also have some authority or responsibility to issue permits for Project implementation, are designated as "responsible agencies." Both the lead agency and responsible agencies must consider the information contained in the EIR prior to acting upon or approving the Project. The City of Moreno Valley is the Lead Agency for the Project. Contact information for the Lead Agency is presented below.

Lead Agency: City of Moreno Valley, Community Development Department
14177 Frederick Street
Moreno Valley, CA 92552

Contact: Julia Descoteaux, Associate Planner
Phone: (951) 413-3209
Email: juliad@moval.org

2.4 PROJECT APPLICANT

Contact information for the Project Applicant is presented below.

Applicant: Sares Regis Group
18802 Bardeen Avenue
Irvine, CA 92612
Phone: (949) 756-5959

Contact: Patrick Russell, Senior Vice President, Commercial Development

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2.5 THE EIR PROCESS

When a public agency determines that there is substantial evidence that a Project may have a significant effect on the environment, the agency must prepare an EIR before a decision is made to approve or deny the Project. The purpose of the EIR is to disclose a project's potential environmental impacts and recommend measures to reduce or avoid significant impacts. The basic content of an EIR includes: a description of the project under consideration and its objectives; a description of the existing environmental conditions; a discussion of the potentially significant environmental effects of the project; recommended measures for reducing these effects; and identification and evaluation of feasible alternatives to the project which may also reduce potentially significant impacts of the proposal.

Typically, EIRs consist of two documents: a Draft EIR, distributed by the lead agency for review and comment by the general public and any interested governmental agencies; and a Final EIR, which consists of responses to comments received on, together with any necessary modifications to, the Draft EIR. After the Draft EIR has been circulated for review and the Final EIR has been prepared, the EIR must be certified by the lead agency as having complied with CEQA and considered by the agency's decision-making body before any action can be taken on a project.

When a public agency receives a complete project application or decides to undertake a project of its own, it first determines if the project is subject to environmental review under CEQA and, if it is, the agency then typically prepares an Initial Study (IS) to determine if the project under consideration has the potential to cause significant adverse environmental effects. The IS serves as a tool to help the agency determine if an EIR is required, and if so, the focal issues to be examined in the EIR. The lead agency may skip the Initial Study process if it is evident that a project could result in significant environmental effects and that an EIR will be required.

The EIR process is initiated by the distribution of a Notice of Preparation (NOP). Together with the Initial Study (if prepared), the NOP is sent to agencies and interested

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individuals as notice of commencement of the EIR process, and to solicit their suggestions for appropriate EIR issues and topical analyses. The completed Draft EIR is then circulated to responsible agencies, other affected or interested agencies, and interested members of the public for review and comment. The review period for a Draft EIR is typically 45 days. To provide for appropriate consideration and inclusion in the Final EIR, all comments and concerns regarding the Draft EIR should be received by the lead agency during this 45-day period.

Responses to comments received on the Draft EIR are prepared by the lead agency and included in the Final EIR. The Final EIR may also contain additional information about the project's potential impacts and minor corrections or modifications to the Draft EIR. The Final EIR must be certified by the lead agency's decision-making body before, or in conjunction with, any action to approve a project. Customarily, EIR certification coincides with City Planning Commission and/or City Council public hearing(s).

CEQA requires that the EIR address only significant adverse impacts. The *CEQA Guidelines* suggest thresholds or standards which define the significance of various types of impacts. The *CEQA Guidelines* also state that the significance of impacts should be considered in relation to their severity and probability of occurrence. However, ultimately, the determination of the significance of impacts is at the discretion of the lead agency. The identification of significant impacts in the EIR does not prevent an agency from approving a project. A project may be approved if the lead agency determines that impacts cannot be feasibly mitigated below a level of significance and if the agency determines that there are important overriding considerations, such as social and economic benefits, which are sufficient to justify approval of the considered project.

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2.6 EIR CONTENT AND FORMAT

This Draft EIR is organized into seven Chapters or Sections, each addressing a separate aspect of the required content of an EIR as described in the *Guidelines*. A summary of the Project's impacts and recommended mitigation measures is provided at Chapter 1.0. An introduction and general overview of the environmental process and the format of this EIR are presented in this Chapter 2.0. Chapter 3.0 contains a complete description of the Project, including its location, objectives, and physical and operational characteristics. The complete and detailed environmental impact analysis is presented at Chapter 4.0. The topical issues mandated by CEQA dealing with cumulative impacts, alternatives, long-term implications of the Project, and energy conservation are found at Chapter 5.0. Chapter 6.0 lists and defines the acronyms and abbreviations contained in this document. Chapter 7.0 lists the information sources and persons consulted during the environmental analysis process, and presents a list of the persons who prepared the Draft EIR. The Initial Study and responses to the NOP, with supporting technical studies, are appended to the body of the EIR document.

Chapter 4.0, *Environmental Impact Analysis*, is the focal component of the Draft EIR. The environmental impact analysis has been organized into a series of sections, each addressing an environmental topic or area of concern identified through the Initial Study process (e.g., Land Use and Planning, Traffic and Circulation, Air Quality, Noise, etc.). To assist the reader in understanding the organization and basis of the analysis, the sections covering each individual environmental topic are typically divided into the following subsections:

- **Reader's Abstract:** An introductory reader's abstract, summarizing content and findings, is provided at the beginning of each topical section.

- **Introduction:** The introduction summarizes the content of the section and references other important studies and reports, such as technical studies appended to the EIR.

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- **Setting:** This subsection describes baseline environmental conditions which may be subject to change as a result of implementation of the Project. Separate descriptions of existing environmental conditions are provided for each environmental topic.

- **Existing Policies and Regulations:** Various relevant policies, regulations, and programs related to the environmental topic are briefly described. Often, these existing policies and regulations serve to reduce or avoid potential environmental impacts.

- **Standards (Thresholds) of Significance:** Before potential impacts are evaluated, the standards which will serve as the basis for judging significance are presented.

- **Potential Impacts and Mitigation Measures:** This subsection states and explains potential impacts caused by the Project. Based on the standards of significance, impacts are categorized as either potentially significant or less-than-significant. If the impacts are considered to be potentially significant, mitigation measures are proposed to reduce the impacts. At the conclusion of each discussion for a potentially significant impact, a determination is made as to whether the impact can be reduced to a less-than-significant level with the application of proposed mitigation measures. Impacts that cannot be reduced to levels that are less-than-significant are identified as "significant and unavoidable."

The summary presented at Chapter 1.0 provides a comprehensive overview of the Project's impacts. For a more detailed description of Project impacts, it is recommended that the reader review the Project description (Chapter 3.0), and then read the sections on the topics of interest in the environmental impact analysis (Chapter 4.0).

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2.7 INTENDED USE OF THIS EIR

This EIR addresses the potential environmental effects of the implementation and operation of the proposed Indian Street Commerce Center Project. The City of Moreno Valley (City) is the Lead Agency for the purposes of CEQA because it has the principal responsibility and authority for deciding whether or not to approve the Project, and how it will be implemented. As the Lead Agency, the City is also responsible for preparing environmental documentation for the Project in compliance with CEQA.

The Lead Agency will employ this EIR in its evaluation of potential environmental impacts resulting from, or associated with, approval and implementation of the Project, to include potential effects of the Project's component elements. This EIR will also be used by various Responsible Agencies, e.g., Air Quality Management District(s), California Department of Transportation, Regional Water Quality Control Board(s), *et al*.; as well as utilities and service providers when such entities issue permits necessary to carry out the project. For example, if this EIR and/or its Mitigation Measures require encroachment permits from Caltrans, this EIR will serve as the environmental assessment for such improvements. (Please refer to California Code of Regulations, sections 15050 and 15162.)

In employing this EIR, the City and other agencies need recognize that Project plans and development concepts identified herein are just that, plans and concepts which are subject to refinement as the Project is further defined. Recognizing the potential for these future minor alterations to the Project, this EIR in all instances evaluates likely maximum impact scenarios that would account for these minor alterations. These refinements and/or minor revisions to development proposals do not typically warrant modified or revised environmental documentation. Notwithstanding, at the discretion and direction of the City, substantive modifications to the Project described herein may warrant additional environmental evaluation.

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2.8 DOCUMENTS INCORPORATED BY REFERENCE

Section 15150 of the *Guidelines* permits and encourages an environmental document to incorporate, by reference, other documents that provide relevant information. The documents summarized below are incorporated by reference, and the pertinent material is summarized throughout this EIR, where that information is relevant to the analysis of potential impacts of the Project. All documents incorporated by reference are available for review at, or can be obtained through, the City of Moreno Valley Community Development Department. Technical studies cited below were specifically developed in conjunction with the Project, and are appended to the body of the Draft EIR.

2.8.1 City of Moreno Valley General Plan

The City of Moreno Valley General Plan (General Plan) establishes Goals and Policies and provides guidance for future development of the City. The General Plan, which was adopted in 2006, incorporates and relies upon its Implementation Plan to provide the guidance necessary for successful implementation of General Plan Goals and Policies.

The General Plan includes seven elements: "Community Development"; "Economic Development"; "Parks, Recreation and Open Spaces"; "Circulation"; "Safety"; "Conservation"; and "Housing." All proposed development projects (inclusive of the Project) are evaluated for consistency with the intent and purpose of the applicable General Plan land use designation(s) and related General Plan Goals, Policies and Implementation Plan actions. Physical development within the General Plan Area will be shaped by the General Plan's Goals, Policies and Programs integral to each of the General Plan Elements.

2.8.2 City of Moreno Valley Municipal Code

The City of Moreno Valley Municipal Code (Municipal Code) codifies and complements the City General Plan. The Municipal Code, in effect, provides the mechanism to implement and enforce the goals, objectives, policies and programs articulated in the General Plan. Many of the potential environmental concerns

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considered in this EIR are adequately addressed through application of existing guidelines and regulations contained in the Municipal Code.

2.8.3 Project Technical Studies/EIR Appendices

Following are summary descriptions of documents and supporting technical studies which are appended to the main body of the Draft EIR. Working titles of these documents generically refer to the Project and its physical attributes, and may not necessarily reflect the currently assigned "Indian Street Commerce Center" development title.

2.8.3.1 Initial Study, NOP, and NOP Responses - EIR Appendix A

The EIR Initial Study (IS), Notice of Preparation (NOP) and responses received pursuant to distribution of the IS/NOP are presented at EIR Appendix A. Based on the Initial Study and responses to the NOP, this EIR addresses the following environmental topics:

- Air Quality;
- Biological Resources;
- Cultural Resources/Tribal Cultural Resources;
- Greenhouse Gas (GHG) Emissions/Global Climate Change;
- Hazards and Hazardous Materials;
- Hydrology/Water Quality;
- Noise; and
- Transportation/Traffic.

2.8.3.2 Traffic Impact Analysis - EIR Appendix B

The detailed evaluation of Project-related traffic/transportation impacts is documented in the *Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) June 29, 2016 (TIA). Project-related traffic issues have been evaluated within the TIA in the context of the California Environmental Quality Act (CEQA) and as directed by the City of Moreno Valley. The TIA also reflects and incorporates

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guidance provided by the California Department of Transportation, District 8 (Caltrans District 8). Additionally, a freeway segment impact analysis has been prepared for the Project pursuant to protocols and methodologies, as outlined in Caltrans District 8 *Guide for the Preparation of Traffic Impact Studies*. The Project freeway segment analysis is provided in *Indian Street Commerce Center Supplemental Basic Freeway Segment Analysis* (Urban Crossroads, Inc.) April 27, 2016.

2.8.3.3 Air Quality Impact Analyses - EIR Appendix C

Air quality impact analyses prepared for the Project include: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016; and *Indian Street Commerce Center Mobile Source Diesel Health Risk Assessment, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

2.8.3.4 Greenhouse Gas Analysis - EIR Appendix D

Detailed analysis of the Project's potential Greenhouse Gas and Global Climate Change impacts are presented in *Indian Street Commerce Center Greenhouse Gas Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

2.8.3.5 Noise Impact Analysis - EIR Appendix E

Potential noise impacts of the Project, including construction-source and operational-source noise impacts are assessed within *Indian Street Commerce Center Noise Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) June 23, 2016.

2.8.3.6 Environmental Site Assessment - EIR Appendix F

An assessment of potential hazards associated with historic use of the Project site; and the potential for hazardous materials to currently exist within or proximate to the Project site is provided in: *Phase I Environmental Site Assessment (Phase I ESA), 17845 Indian Street, Moreno Valley, California* (Ardent Environmental Group, Inc.) July 15, 2015 and *Results of Pesticide and Herbicide Sampling, 17845 Indian Street, Moreno Valley, California* (Ardent Environmental Group, Inc.) July 13, 2016.

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2.8.3.7 Stormwater Management - EIR Appendix G

Drainage and stormwater runoff water quality considerations are evaluated and addressed in: *Preliminary Hydrology Report for Moreno Valley Vogel Industrial [Indian Street Commerce Center Project]* (Huitt-Zollars, Inc.) Revised July 7, 2016 (Project Drainage Study); and *Project Specific Water Quality Management Plan for Moreno Valley Vogel Industrial [Indian Street Commerce Center Project]* (Huitt-Zollars, Inc.) Revised March 29, 2016 (Project WQMP).

2.8.3.9 Biological Resources Assessment - EIR Appendix H

Biological resources potentially affected by the Project are assessed in: *Biological Property Evaluation for Sensitive Biological Resources for a Proposed Project Located at 17845 Indian Street Located in the City of Moreno Valley, Riverside County, California* (Michael Baker International) August 21, 2015.

2.8.3.10 Airport Compatibility Documentation- EIR Appendix I

The Project is located proximate to March Air Reserve Base/Inland Port Airport (March ARB/IPA). Documentation provided at EIR Appendix I substantiates Project compatibility with March ARB/IPA facilities and operations.

2.8.3.11 Cultural Resources Investigation

A cultural resources investigation was also prepared for the Project: *A Phase I Cultural Resources Survey for the Proposed Commercial Development (Approximately 20 Acres) in the City of Moreno Valley, Riverside County, California* (McKenna et al.) February 21, 2016.

Due to the relative sensitivity of archaeological and historic sites to disturbance, cultural resource reports which identify the locations of potential resources are generally not circulated publicly. A copy of the Phase I Cultural Resources Investigation may, however, be reviewed at the City of Moreno Valley Community Development Department.

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3.0 PROJECT DESCRIPTION

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3.0 PROJECT DESCRIPTION

3.1 OVERVIEW

The proposed Indian Street Commerce Center Project (Project), including all facilities proposed within the Project site, on- and off-site supporting improvements, and associated discretionary actions, is the Project considered in this EIR. In summary, the Project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. As currently proposed, 347,080 square feet of the Project building area would be allocated for distribution warehouse uses; 89,270 square feet would be assigned to manufacturing uses; and 10,000 square feet would be assigned to office uses. The Project does not include a refrigerated/cold storage component.

3.2 PROJECT LOCATION AND BOUNDARIES

The Project site is located in the southern portion of the City of Moreno Valley, in western Riverside County. The Project site is located approximately one-half mile westerly of Perris Boulevard and is bounded by Indian Street to the east. Grove View Road (alignment) comprises the Project site northerly boundary. March Air Force Base is located approximately one-third mile westerly of the Project site. Please refer to Figure 3.2-1, *Project Location*.



Source: Google Earth; Applied Planning, Inc.

Figure 3.2-1
Project Location

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3.3 EXISTING LAND USES AND LAND USE DESIGNATIONS

The following discussions summarize existing land use conditions in the Project vicinity and provide general context for the Project.

3.3.1 Existing Land Uses

Project site and vicinity land uses are denoted at Figure 3.3-1 and area land uses are described below. Representative photos of the Project site are presented at Figures 3.3-2 through 3.3-3.

3.3.1.1 Project Site Land Use

The Project site is a roughly rectangular-shaped parcel, totaling 19.64 acres. The Project site address is 17845 Indian Street, Moreno Valley; the site comprises current Assessor's Parcel Numbers (APNs) 316-210-019; 316-210-020; 316-210-057; and 316-210-077. The Project site is essentially level, evidencing elevations generally ranging from 1,464 feet above mean sea level to approximately 1,468 feet MSL. The subject site is vacant and undeveloped and is devoid of notable topographic features or substantial terrain differentials.

The Project site is heavily disturbed by general human activities including routine weed abatement. The subject site is generally characterized as a disturbed field dominated by tumbleweed. A small number of ornamental pines and Chinaberry trees exist in the southwesterly portion of the Project site. Disturbance of the subject site and surrounding properties has reduced the suitability of any remaining habitat to support sensitive plant and wildlife species. Based on habitat requirements for specific species and the availability and quality of habitats needed by each sensitive plant species, it was determined that the Project site does not provide suitable habitat that would support any of the California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS), or Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) listed plant species known to occur in the general vicinity of the Project site (Project Biological Report, pp. 2 - 3).

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Source: Google Earth; Applied Planning, Inc.

Figure 3.3-1
Existing Land Uses

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Photograph 1: From the southwest corner of the project site, looking west.



Photograph 3: From the northern boundary of the project site looking south.



Photograph 2: Looking north at the eastern boundary of the project site.



Photograph 4: Looking southwest at the middle portion of the project site. The ornamental pines and Chinaberry trees are in the background.

Source: Michael Baker, International; Applied Planning, Inc.

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Figure 3.3-2
Site Photos

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Photograph 5: From the western border of the project site looking east.



Photograph 6: Looking east at the ornamental pines located in the southwestern portion of the project site.



Photograph 7: From the southern border of the project site looking northeast.



Photograph 8: From the southeast corner of the project site looking west.

Source: Michael Baker, International; Applied Planning, Inc.

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Figure 3.3-3
Site Photos

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3.3.1.2 Vicinity Land Uses

Northerly adjacent to the Project site, properties are currently vacant or evidence paved parking and storage areas. Easterly of the Project site across Indian Street, properties are vacant and undeveloped. Southerly adjacent to the Project site are distribution warehouse uses similar to those proposed by the Project. Properties westerly adjacent to the Project site are vacant and undeveloped.

3.3.2 Existing Land Use Designations

3.3.2.1 General Plan Land Use

Existing General Plan Land Use and Zoning designations for the Project site and vicinity properties are depicted at Figures 3.3-4 and 3.3-5, respectively. The City of Moreno Valley General Plan Land Use Map designates the Project site as "Business Park/Light Industrial." As described in the General Plan, "[t]he primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio [FAR] of 1.00 and the average floor area ratio should be significantly less . . ." (City of Moreno Valley General Plan, p. 9-7). Distribution warehouse uses implemented under the Project would total a maximum of approximately 446,350 square feet on approximately 19.64 acres, yielding a FAR of approximately 0.51. Properties adjacent to the Project site on all sides are also designated Business Park/Light Industrial. Approximately 500 feet westerly of the Project site properties are designated "Open Space," recognizing the Clear Zone (CZ) area established at the southerly terminus of the March Air Force Base runway(s).

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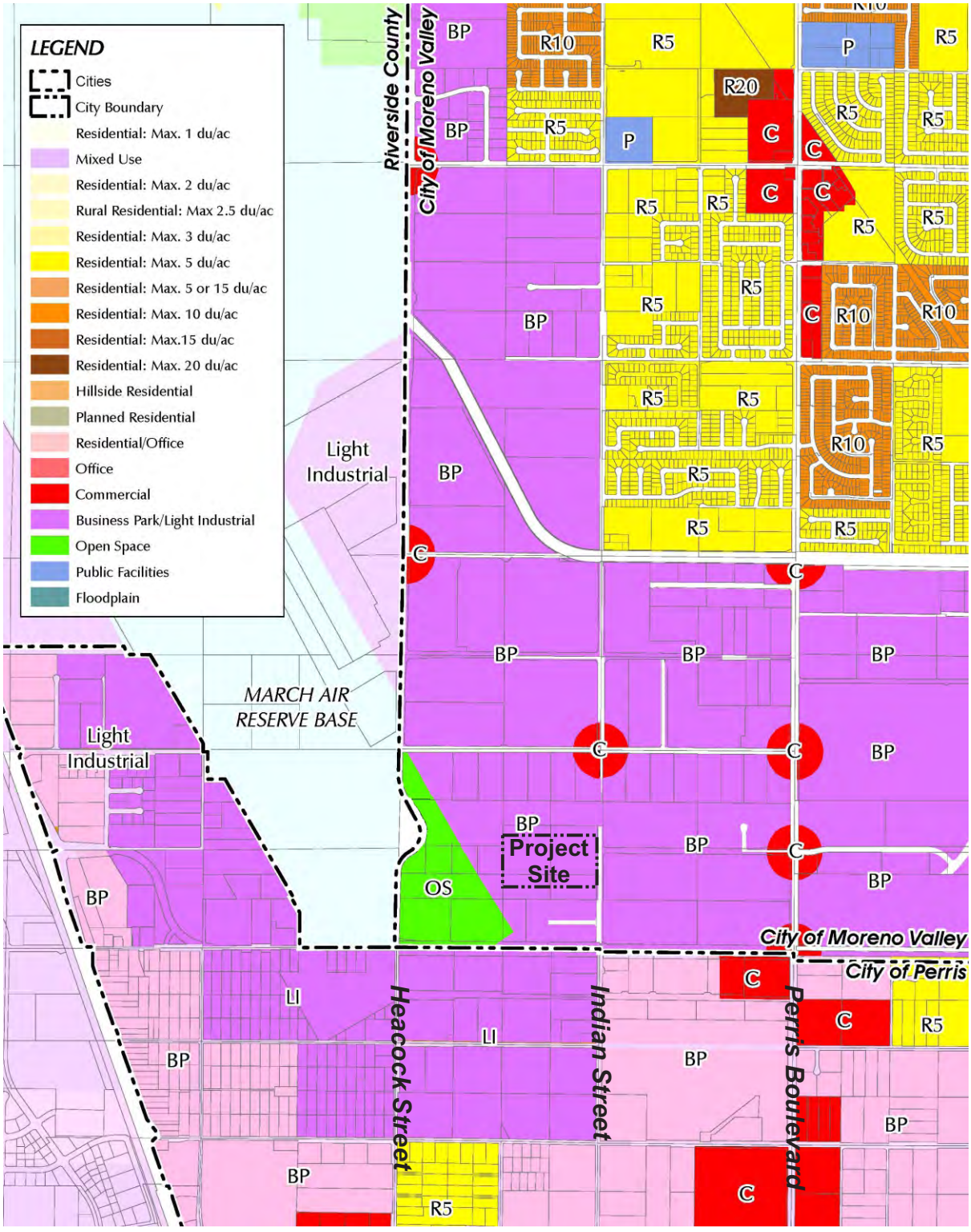

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NOT TO SCALE

Source: T&B Planning; RCTLMA; Applied Planning, Inc.

Figure 3.3-4
General Plan Land Use Designations

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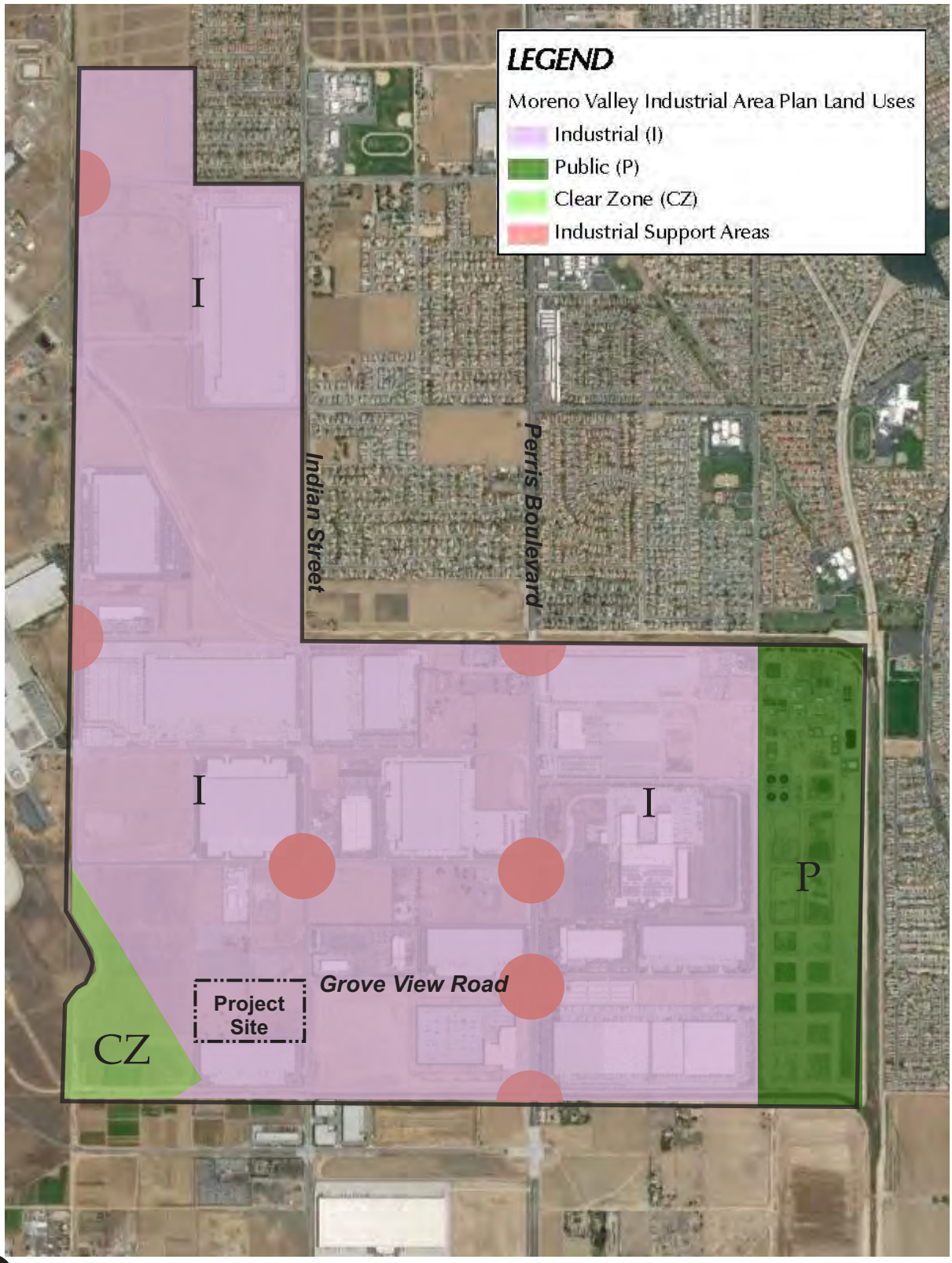

Source: T&B Planning; RCTLMA; Google Earth; Applied Planning, Inc.

Figure 3.3-5
Existing Zoning Designations

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3.3.3.2 Zoning

Current zoning of the Project site and surrounding properties is established under Specific Plan 208 (SP 208), Moreno Valley Industrial Area Plan (MVIAP) (formerly the Oleander Specific Plan). SP 208 land uses, including the Project site, are designated *Industrial*. Development concepts and uses proposed by the Project are permitted or conditionally permitted under the site's current SP 208 Industrial zoning designation.

3.4 PROJECT ELEMENTS

3.4.1 Site Preparation

The Project area would be grubbed, rough-graded, and fine-graded in preparation of building construction. Any debris generated during site preparation activities would be disposed of and/or recycled consistent with the City's Source Reduction and Recycling Element (SRRE). Existing grades within the Project site would be modified to establish suitable building pads and to facilitate site drainage. Allowing for varying soils characteristics, approximately 3,000 cubic yards of soil import/export may be required over the course of Project site preparation and construction.

3.4.2 Project Development Concept

The Project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. As currently proposed, 347,080 square feet of the Project building area would be allocated for distribution warehouse uses; 89,270 square feet would be assigned to manufacturing uses; and 10,000 square feet would be assigned to office uses. Approximately 35 loading dock doors would be provided along the warehouse's southerly face.

The Project Site Plan Concept is presented at Figure 3.4-1. Final designs of the Project building will be realized consistent with industrial design requirements and standards of the encompassing Moreno Valley Industrial Area Plan and Municipal Code Section 9.05.040, "Industrial Site Development Standards."

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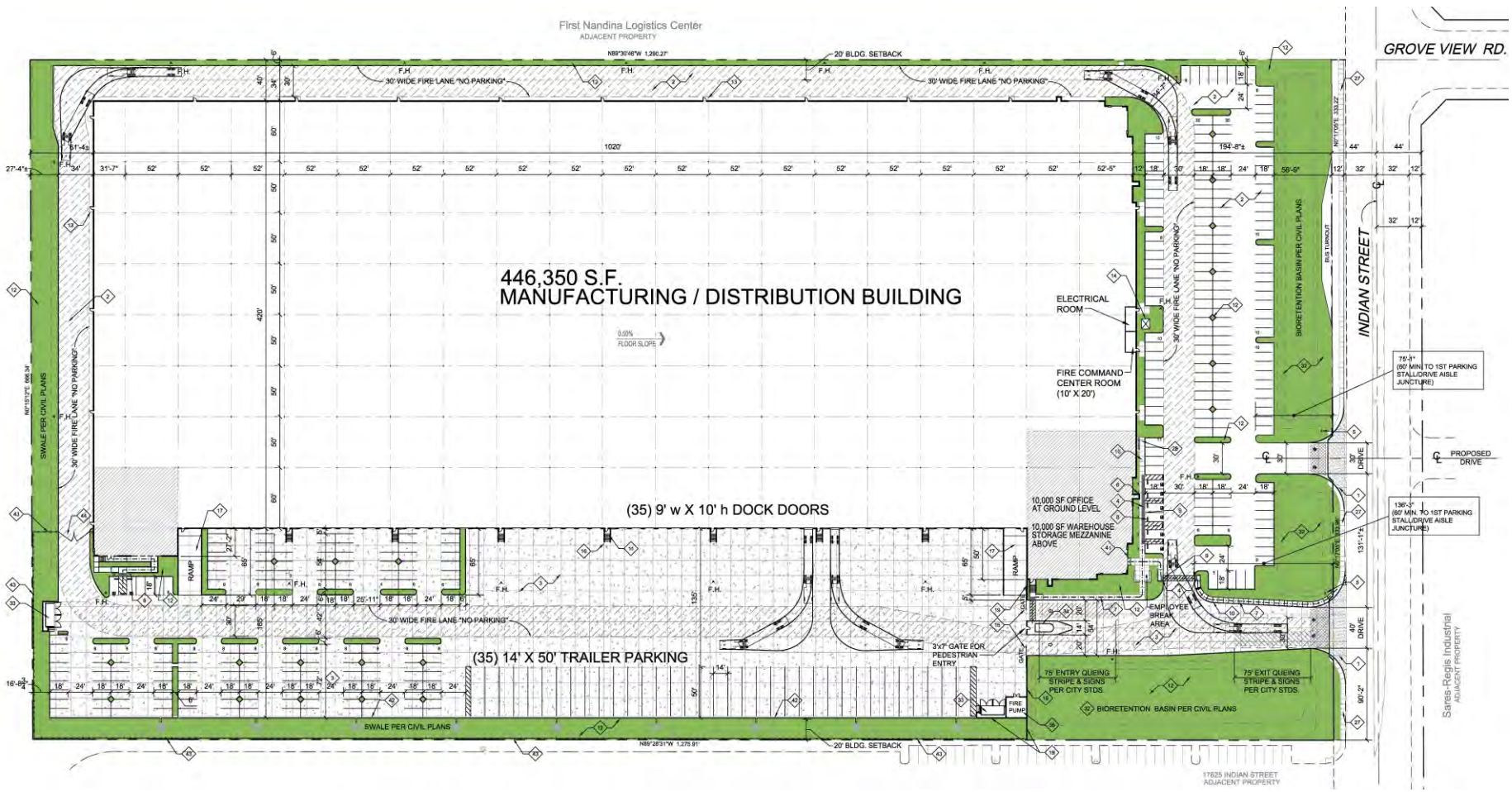

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NOT TO SCALE

Source: Herdman Rierson Architecture + Design (August 2016); Applied Planning, Inc.

Figure 3.4-1
Site Plan

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3.4.3 Access and Circulation

Under the Project Site Plan Concept, primary access to the Project would be provided by two driveways onto existing Indian Street along the site's easterly boundary. Both driveways would be STOP-controlled, and would allow left- and right- turn movements. The Project would also construct site-adjacent roadway improvements as presented in the Project TIA and summarized at EIR Section 4.2, *Transportation/Traffic.*

3.4.3.1 Construction Traffic Management Plan

Temporary and short-term traffic detours and traffic disruptions could result during Project construction activities including implementation of access and circulation improvements noted above. Accordingly, the Project Applicant would be responsible for the preparation and submittal of a construction area traffic management plan (Plan) to be reviewed and approved by the City Public Works Department. Typical elements and information incorporated in the Plan would include but would not be limited to:

- **Name of on-site construction superintendent and contact phone number.**

- **Identification of Construction Contract Responsibilities** - For example for excavation and grading activities, describe the approximate depth of excavation, and quantity of soil import/export (if any).

- **Identification and Description of Truck Routes** - to include the number of trucks and their staging location(s) (if any).

- **Identification and Description of Material Storage Locations (if any).**

- **Location and Description of Construction Trailer (if any).**

- **Identification and Description of Traffic Controls** - Traffic controls shall be provided per the Manual of Uniform Traffic Control Devices (MUTCD) if the occupation or closure of any traffic lanes, parking lanes, parkways or any other

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public right-of way is required. If the right-of-way occupation requires configurations or controls not identified in the MUTCD, a separate traffic control plan must be submitted to the City for review and approval. All right-of-way encroachments would require permitting through the City.

- **Identification and Description of Parking** - Estimate the number of workers and identify parking areas for their vehicles.

- **Identification and Description of Maintenance Measures** - Identify and describe measures taken to ensure that the work site and public right-of-way would be maintained (including dust control).

The Plan must be reviewed and approved by the City prior to the issuance of the building permit. The Plan and its requirements would also be required to be provided to all contractors as one component of building plan/contract document packages.

3.4.4 Landscape/Hardscape

The Project would incorporate perimeter and interior landscaping and streetscape elements, acting to generally enhance the Project's visual qualities. Proposed landscaping includes varied trees, shrubs, and ground cover. Design accents, including all landscape/hardscape designs and features are subject to City review and approval. Landscaping will also be provided within and adjacent to the Project retention/detention areas acting to screen and enhance these areas as well as provide treatment for stormwater runoff from the Project site. Final design of the Project's landscaping and hardscape are subject to the City's Design Review processes.

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3.4.5 Walls/Screening

An approximately 50-foot wide, bermed landscape setback along Indian Street would be provided, acting to screen Project parking areas and generally enhance public views of the Project site. Additionally, a minimum 20-foot landscape setback/edge treatment along the Project's southerly boundary, and an approximately 25-foot wide landscape setback/edge treatment along the Project site westerly boundary would be provided, acting to further screen and enhance views of the Project site. Landscape setbacks and edge treatments would conform to applicable provisions of the MVIAP, and requirements stipulated at Municipal Code Section 9.05.040, "Industrial Site Development Standards."

Internal site features and appurtenances including but not limited to loading dock areas, trash collection areas, and utility pedestals/surface utility boxes, would also be screened.

All walls/screening elements would be designed and implemented consistent with applicable provisions of the encompassing Moreno Valley Industrial Area Plan, Municipal Code Section 9.08.150, "Screening Requirements," and Section 9.10.160, "Outdoor Storage, Trash Areas, and Service Areas."

Project screening elements, including all screening walls, would be architecturally compatible with other Project facilities. Final design of all proposed screening elements are subject to City Design Review and Approval processes.

3.4.6 Lighting

All Project lighting would be designed and implemented in a manner that precludes potential adverse effects of light overspill consistent with requirements of the MVIAP and as identified at City Municipal Code Section 9.10.110, "Light and Glare." Municipal Code Section 9.16.280, "Applications for Lighting, General Requirements," subsection A. states:

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> Lighting serves both safety and aesthetic purposes, illuminating dark areas and providing for highlights and accents. Effective lighting would highlight building features, add emphasis to important spaces and create an ambience of vitality and security. The intent of these guidelines is to encourage effective and innovative lighting to be incorporated as an integral component of a project.

Potential light overspill, is addressed through Municipal Code Section 9.10.110, "Performance Standards, Light and Glare," and would be minimized through limited use of freestanding lighting and use of fixed and shielded directional wall-mounted fixtures. The Project lies within 45 miles of the Mt. Palomar Observatory, and would comply with applicable provisions of County of Riverside Ordinance 655 which addresses protection of the night sky from light pollution that would interfere with astronomical observations.

Final design of the Project lighting plan including locations, heights, and performance standards for all Project lighting features and fixtures is subject to the City's Design Review processes. Detailed lighting plans would be prepared in conjunction with building plan submittals, and would be subject to City Design Review and Approval processes prior to issuance of building permits.

3.4.7 Signs

Signs for the Project would be designed and implemented consistent with applicable provisions of the MVIAP and Municipal Code Section 9.12, "Sign Regulations." The Project Sign Program would provide detailed guidelines and requirements for facility and informational signs and other graphic displays within the Project area. The Sign Program would afford prospective tenants with the maximum possible exposure in a manner that is consistent with the encompassing Project design concept, and responsive to community visual and aesthetic sensibilities.

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3.4.8 Parking

The City of Moreno Valley Municipal Code at Section 9.11.040 "Off-street parking requirements," Table 9.11.040C-12 [Industrial] *Off-Street Parking Requirements* specifies a parking ratio of one parking space for each 1,000 square feet of gross floor area in a warehouse/distribution building for the first 20,000 square feet; one additional space for each 2,000 square feet of floor area within the second 20,000 square feet; and one additional space for each 4,000 square feet of floor area for areas in excess of the initial 40,000 square feet. Additionally, one parking space is required for every 500 square feet of manufacturing uses; and one parking space is required for every 250 square feet of office uses. Pursuant to City parking requirements, the Project would be required to provide an estimated 323 parking spaces. The Preliminary Site Plan Concept provides 326 parking spaces (318 standard spaces, 8 ADA spaces); and 35 additional trailer spaces. No off-site parking is proposed, nor would it be required. Final design of parking areas would be as reviewed and approved by the City through the City's Design Review processes.

3.4.9 Infrastructure/Utilities

The Project site is served by existing mainline utilities services. Primary utilities services are described below.

3.4.9.1 Water/Sewer Services

Water and sewer services would be provided to the Project by the Eastern Municipal Water District (EMWD). Water service extensions to the Project site from existing facilities located in the abutting Indian Street right-of-way would be realized during improvement of the surrounding street system. Sanitary sewer services to the Project would similarly be provided by connection to the existing sewer main located within Indian Street. Alignment of service lines, and connection to existing services would be as required by EMWD. Wastewater would be conveyed from the Project for treatment at the 300-acre Perris Valley Regional Water Reclamation Facility (PVRWRF).

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3.4.9.2 Stormwater Management Systems

The Project stormwater management systems comprehensively include proposed drainage improvements, and facilities and programs which act to control and treat stormwater pollutants. Under the preliminary Project Storm Water Management System concept, stormwater runoff from the developed Project site would be directed to on-site bio-retention basins and released in a controlled manner to the existing storm drains located within the Grove View Road and/or Indian Street rights-of-way.

The Project would implement a Storm Water Pollution Prevention Plan (SWPPP), and Water Quality Management Plan (WQMP) consistent with City requirements. In this manner the Project would also comply with requirements of the City's National Pollutant Discharge Elimination System (NPDES) Permit and other water quality requirements or stormwater management programs specified by the Regional Water Quality Control Board (RWQCB). In combination, implementation of the Project SWPPP, WQMP, and compliance with NPDES Permit and RWQCB requirements acts to protect City and regional water quality by preventing or minimizing potential pollutant discharges to the watershed.

3.4.9.3 Solid Waste Management

It is anticipated that Project-generated solid waste would be conveyed by Waste Management of the Inland Empire, to one of three nearby landfills. Solid waste generated by the Project, and related potential effects on landfill capacities, are minimized through compliance with requirements of the City's Source Reduction and Recycling Element (SRRE). In this regard, City SRRE programs and policies provide for a 50 percent target diversion rate for solid waste, thereby reducing solid waste conveyance and disposal demands.

3.4.9.4 Electricity

Electrical service within the City is provided by Southern California Edison (SCE) and the Moreno Valley Electric Utility. The Moreno Valley Electric Utility (MVU) would provide service to the Project site. Existing overhead lines and poles along the Project's

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easterly, Indian Street boundary would be converted to underground facilities and installed within the public right-of-way. New lines installed by the Project would be placed underground. Alignment of service lines and connection to existing services would be as required by the Moreno Valley Electric Utility. Any necessary surface-mounted equipment, such as transformers, meters, service cabinets, and the like, would be screened and would conform to building setback requirements.

It is further noted that to allow for, and facilitate Project construction activities, provision of temporary MVU electrical services improvements would be required. The scope of such temporary improvements are considered to be consistent with, and reflected within the total scope of development proposed by the Project. Similarly, impacts resulting from the provision of temporary MVU services would not be substantively different from, or greater than, impacts resulting from development of the Project in total.

3.4.9.5 Natural Gas

Natural gas service would be provided by the Gas Company. Existing service lines would be extended to the Project uses. Alignment of service lines and connection to existing services would be as required by the Gas Company.

3.4.9.6 Communications Services

Communications services, including wired and wireless telephone and internet services, are available through numerous private providers and would be provided on an as-needed basis. As with electrical service lines, all existing and proposed wires, conductors, conduits, raceways, and similar communications improvements within the Project area would be installed underground. Any necessary surface-mounted equipment, e.g., terminal boxes, transformers, meters, service cabinets, etc., would be screened and would conform to building setback requirements.

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3.4.10 Energy Efficiency/Sustainability

Energy-saving and sustainable design features and operational programs would be incorporated into all facilities developed pursuant to the Project. Notably, the Project in total would provide sustainable design features necessary to achieve a "Certified" rating under the United States Green Building Council's Leadership in Energy & Environmental Design (LEED) programs. The Project also incorporates and expresses the following design features and attributes promoting energy efficiency and sustainability.

- The Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provider that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City.

- All on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines.

- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:

    - Sidewalks along the Project site's Indian Street frontage would be constructed as part of the Project, and would connect to existing and planned sidewalks to the north and south of the Project site. Facilitating pedestrian access encourages people to walk instead of drive. The Project would not impose barriers to pedestrian access and interconnectivity.

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- Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery vendor truck trips.

- To reduce water demands and associated energy use, development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy).[1] Development proposals within the Project site would also be required to implement the following:

  - Landscaping palette emphasizing drought tolerant plants consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

  - Use of water-efficient irrigation techniques consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

  - U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and other plumbing fixtures.

Additionally, the Project in total would surpass, by a minimum of 5%, incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards).

[1] Reduction of 20% indoor water usage is consistent with the current CalGreen Code performance standards for residential and non-residential land uses. Per CalGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

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3.5 PROJECT OPENING YEAR

The proposed Indian Street Commerce Center Project in total would be developed in a manner responsive to market conditions and in concert with availability of necessary infrastructure and services. The anticipated Project Opening Year is 2018.[2]

3.6 PROJECT OBJECTIVES

The primary goal of the Project is to develop high quality light industrial/business park uses accommodating a variety of prospective tenants. Complementary Project Objectives include the following:

- Implement the City's General Plan through development that is consistent with the General Plan Community Development Element and applicable General Plan Goals, Objectives, Policies and Programs;
- Implement the Moreno Valley Industrial Area Plan through development that is consistent with the Area Plan land uses and development concepts, and in total supports the Area Plan Vision;
- Provide adequate roadway and wet and dry utility infrastructure to serve the Project;
- Accommodate warehouse and manufacturing uses that are compatible with adjacent land uses;
- Provide an attractive, efficient and safe environment for warehouse uses that is cognizant of natural and man-made conditions;
- Accommodate a mix of warehouse and manufacturing uses responsive to current and anticipated market demands;
- Establish new development that would increase locally available employment opportunities and would further the City's near-term and long-range fiscal goals and objectives; and

[2] The anticipated Project Opening Year is 2018. Notwithstanding, consistent with City Traffic Impact Analysis (TIA) methodology requirements establishing a likely maximum cumulative traffic impact scenario, the Project opening year is assumed to occur a minimum of 5 years from existing (2015) conditions. Accordingly, the Project TIA reflects an assumed 2020 "opening year" condition.

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- Establish new development that would increase locally available employment opportunities thereby improving jobs/housing balance within the City.

3.7 PROJECT DISCRETIONARY ACTIONS, PERMITS, CONSULTATIONS

Discretionary actions, permits and related consultation(s) necessary to approve and implement the Project include, but are not limited to the following.

3.7.1 Lead Agency Discretionary Actions and Permits

- **Certification of the EIR (City Case #P16-003).** The proposed development is a Project under CEQA, and may result in significant environmental impacts. Lead Agency certification of the Project EIR is required;

- **Plot Plan Review and Approval** to include Project design and architectural reviews;

- **Construction, grading, and encroachment permits** allowing implementation of the Project facilities within City of Moreno Valley jurisdictional areas; and

- **Vacation and/or dedication of public rights-of-way and easements** as elements of the proposed parcel map, or independent of the map. Rights-of-way and easements would provide public access, and ensure appropriate alignment of and access to infrastructure and utilities.

3.7.2 Other Consultation and Permits

CEQA Guidelines Section 15124 also states that the EIR should, to the extent known, include a list of all the agencies expected to use the EIR in their decision-making (Responsible Agencies, Trustee Agencies), and a list of other permits or approvals required to implement the Project. Based on the current Project design concept, anticipated permits necessary to realize the proposal would likely include, but are not limited to the following:

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- Tribal Resources consultation with requesting Tribes as provided for under *AB 52, Gatto. Native Americans: California Environmental Quality Act*;

- Permitting may be required by/through the Regional Water Quality Control Board (RWQCB) pursuant to requirements of the City's National Pollutant Discharge Elimination System (NPDES) Permit;

- Permitting may be required by/through the South Coast Air Quality Management District (SCAQMD) for certain equipment or land uses that may be implemented within the Project area; and

- Various construction, grading, and encroachment permits allowing implementation of the Project facilities.

3.7.3 City Development Applications

In support of requested discretionary approvals and permits noted above, development applications submitted by the Project Applicant include:

- **Plot Plan** approval for the Project facilities; and

- **Tentative Parcel Map** approval to combine and reconfigure existing parcels comprising the Project site.

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4.0 ENVIRONMENTAL IMPACT ANALYSIS

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4.0 ENVIRONMENTAL IMPACT ANALYSIS

This chapter of the EIR analyzes and describes the potential environmental impacts associated with the adoption and implementation of the Indian Street Commerce Center Project (Project). The environmental impact analysis has been organized into a series of sections, each addressing a separate environmental topic. Environmental topics addressed in this EIR are presented in the following sections:

Section	Topic
4.1	Transportation/Traffic
4.2	Air Quality
4.3	Global Climate Change/Greenhouse Gas Emissions
4.4	Noise
4.5	Hazards/Hazardous Materials
4.6	Hydrology and Water Quality
4.7	Biological Resources
4.8	Cultural Resources/Tribal Cultural Resources

Within each of the above topical Sections, the discussion is typically divided into subsections which: summarize the findings of the section; present the framework for the discussion by listing the sources of information used in the section; describe the "setting" or existing environmental conditions; identify regulations and policies, which through their observance typically resolve many potential environmental concerns; identify thresholds of significance applicable to potential environmental effects of the Project; describe the significance of Project-related environmental effects in the context of applicable significance thresholds; and for impacts which are potentially significant or significant, recommend mitigation measures to eliminate or reduce their effects. In this latter regard, it is recognized that the intent of the California Environmental Quality

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Act (CEQA) is to focus on significant, or potentially significant adverse effects of the Project, and therefore, mitigation is proposed only for potential impacts of this magnitude.

As noted above, before potential impacts are evaluated, the standards or thresholds which will serve as the basis for judging the relative significance of impacts are presented. Often thresholds serve as a general guide or gauge for determining an impact's potential relative significance, rather than defining its absolute effects. Subsequent to identification of relevant significance thresholds, potential Project-related effects and impacts are identified and explained. If an impact is considered to be potentially significant, mitigation measures are proposed to avoid the impact, or reduce its effects to the extent feasible. In determining the potential significance of impacts, the adequacy of existing policies and regulations in addressing each impact is taken into consideration. At the conclusion of each discussion for a potentially significant impact, a determination is made as to whether the impact can be reduced to a less-than-significant level with the application of mitigation measures.

In the environmental analysis, the following terms are used to describe the potential effects of the Project:

- **Less-Than-Significant Impacts**: Minor changes or effects on the environment caused by the Project which do not meet or exceed the criteria, standards, or thresholds established to gauge significance are considered to be less-than-significant impacts. Less-than-significant impacts do not require mitigation. In some cases, these impacts may appear to be potentially significant. However, existing public policies, regulations, and procedures adequately address these potential effects, thereby reducing them to a less-than-significant level, without the need for additional mitigation.

- **Potentially Significant Impacts**: Potentially significant impacts are defined as a substantial, or potentially substantial, adverse change in the environment. The CEQA Guidelines and various responsible agencies provide guidance for

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determining the significance of impacts. However, the determination of impact significance is ultimately based on the judgment of the lead agency. Similarly, the establishment of any criteria to be used in evaluating the significance of impacts is the responsibility of the lead agency. Wherever possible, mitigation is proposed in the EIR to avoid or reduce the magnitude of potentially significant impacts.

- **Significant Impacts**: Impacts identified in the EIR which cannot be mitigated below thresholds of significance through the application of feasible mitigation measures are categorized as "significant."

- **Cumulative Impacts**: A discussion of cumulative impacts is provided in Section 5.0 of this environmental analysis. Cumulative impacts refer to the impacts of the Project as they are combined or interact with anticipated impacts of other vicinity projects and physical effects of projected ambient regional growth.

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4.1 TRANSPORTATION/TRAFFIC

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4.1 TRANSPORTATION/TRAFFIC

Abstract

This Section addresses the Project's potential to result in potentially significant transportation/traffic impacts. More specifically, this Section of the EIR examines whether the Project would:

- *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;*

- *Conflict with an applicable congestion management program, including, but not limited to a level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;*

- *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks; or*

- *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).*

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Consistent with the methodology established by the Lead Agency, the Project's potential traffic impacts have been evaluated in detail in Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA *(Urban Crossroads, Inc.) June 29, 2016 (Project TIA), EIR Appendix B. Consistent with the Lead Agency TIA methodology and analytic protocols, the Project TIA evaluates potential traffic impacts under Existing (2015) and assumed Opening Year (Existing plus 5 years, or Year 2020) traffic conditions.[1] The Project TIA identifies specific physical improvements (e.g., traffic signals, lane improvements) that, when completed, would successfully mitigate potentially significant impacts affecting Study Area facilities.*

Project-Specific Impacts and Mitigation

The Project would construct traffic improvements necessary to mitigate its specific impacts, and ensure efficient and safe access to and within the Project site. Additionally, where necessary, mitigation measures have been identified to ensure that potential Project-specific circulation system impacts affecting Study Area facilities are reduced to levels that are less-than-significant.

Cumulative Impacts and Mitigation

As discussed herein, area-serving traffic improvements are funded by fees collected and allocated under established programs including the City of Moreno Valley Development Impact Fee (DIF) Program, Project-related fair-share participation, and the Western Regional Council of Governments (WRCOG) Transportation Uniform Mitigation Fee (TUMF) program. Collectively, these fee programs provide for construction of necessary traffic improvements within the Study Area. Project mitigation responsibilities for incremental contributions to cumulative traffic impacts affecting Study Area facilities are fulfilled by payment of requisite traffic impact fees that would be assigned to the construction of necessary improvements. Notwithstanding, payment of traffic impact fees does not ensure timely completion of those traffic improvements necessary to mitigate potentially significant cumulative traffic impacts affecting the Study Area. In these instances, Project traffic impacts would not be individually significant, but would however be considered cumulatively significant. Pending completion of

[1] The anticipated physical Project Opening Year is 2018. Notwithstanding, consistent with City Traffic Impact Analysis (TIA) methodology requirements establishing a likely maximum cumulative traffic impact scenario, the Project opening year is assumed to occur a minimum of 5 years from existing (2015) conditions. Accordingly, the Project TIA reflects an assumed 2020 "opening year" condition.

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required improvements, the Project's contributions to cumulative traffic impact deficiencies identified within this Section are therefore cumulatively considerable and the identified cumulative impacts are significant and unavoidable.

Congestion Management Plan (CMP) Impacts and Mitigation

The Project would pay all requisite fees for improvements at Study Area CMP facilities. However, as discussed above, fee payments would not ensure timely completion of improvements required for mitigation of cumulatively significant impacts within the Study Area. Pending completion of required improvements, Project contributions to impacts affecting Study Area CMP facilities are therefore considered cumulatively considerable and the identified cumulative impacts are significant and unavoidable.

Other

Other areas of potential concern, e.g., increased hazards due to design features; effects on air traffic patterns; and adequacy of emergency access, are evaluated herein in the context of the Project design concepts, City design and engineering requirements, and adopted plans and regulations.

Additionally, as discussed in the Initial Study (EIR Appendix A), the Project's potential impacts under the following topics were previously determined to be less-than-significant, and are not further substantively discussed here:

- *Result in inadequate emergency access; and*

- *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.*

Please refer also to Initial Study Checklist Item XVII., Transportation/Traffic.

4.1.1 INTRODUCTION

The Project TIA was developed and prepared consistent with City of Moreno Valley *Traffic Impact Analysis Preparation Guide* (City of Moreno Valley Transportation Engineering Division) August 2007, and the California Department of Transportation

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Guide for the Preparation of Traffic Impact Studies (California Department of Transportation, Caltrans) December 2002. Detailed TIA content and analytic protocols are presented in the TIA Scoping Agreement (TIA Appendix 1.1).

To establish a likely maximum cumulative impact scenario, and consistent with the Lead Agency's TIA methodology and protocols, for the purposes of the Project TIA the Project Opening Year is assumed to occur a minimum of 5 years from the TIA Existing Conditions (2015) analysis timeframe; in the case of the instant Project, 2020 is the evaluated Opening Year condition.

Pursuant to the TIA Scoping Agreement, analyses of traffic conditions are presented for the following analytic scenarios: Existing Conditions (2015) and Project Opening Year Conditions (2020). Trip generation rates and vehicle mix characteristics employed in the Project TIA analytic scenarios are also consistent with the TIA Scoping Agreement.

Discussions were held with the Lead Agency and the Project Applicant to obtain a comprehensive understanding of the Project and identify Study Area Key Intersections requiring analysis. Study Area Key Intersections are identified at Figure 4.1-1.

Discussions with the Lead Agency also defined Project trip distribution and level-of-service (LOS) analysis methodologies, including the determination of traffic impact significance criteria. Approved or planned projects ("related" projects) within the Study Area which would be considered as part of the cumulative development setting were also identified.

4.1.2 STUDY AREA JURISDICTIONAL AGENCIES

As indicated at Table 4.1-1, certain of the Study Area intersection locations are extra-jurisdictional to the City of Moreno Valley, and are located in the City of Perris and unincorporated Riverside County. As also indicated at Table 4.1-1, Study Area highway and freeway facilities, including on- and off-ramps are under Caltrans jurisdiction or are under shared jurisdiction with Caltrans.

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4.1.2.1 Study Area Intersections

A total of 10 existing and planned Study Area intersections were selected for evaluation as part of the Project TIA. Table 4.1-1 identifies these intersections, and indicates the jurisdiction of each. The City of Moreno Valley *Traffic Impact Analysis Preparation Guide* (City TIA Preparation Guide) require the analysis of all intersections at which a proposed project is anticipated to contribute 50 or more peak hour trips. The "50 or more peak hour trips" intersection analytic protocol stipulated in the City TIA Preparation Guide is consistent with standard industry practice. The 50 peak hour trip analytic protocol is employed by other agencies throughout southern California including Caltrans, County of Riverside, County of San Bernardino, and the County of Orange.

Table 4.1-1
TIA Study Area Intersections

ID No.	Location	Jurisdiction	CMP Facility
1	I-215 Southbound Ramps / Harley Knox Boulevard	Caltrans, Riverside Co.	Yes
2	I-215 Northbound Ramps / Harley Knox Boulevard	Caltrans, Perris	Yes
3	Western Way / Harley Knox Boulevard	Perris	No
4	Patterson Avenue / Harley Knox Boulevard	Perris	No
5	Webster Avenue / Harley Knox Boulevard	Perris	No
6	Indian Street / Nandina Avenue	Moreno Valley	No
7	Indian Street / Grove View Road	Moreno Valley	No
8	Indian Street / Driveway 1	Moreno Valley	No
9	Indian Street / Driveway 2	Moreno Valley	No
10	Indian Street / Harley Knox Boulevard	Perris	No

Source: *Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA* (Urban Crossroads, Inc.) June 29, 2016.

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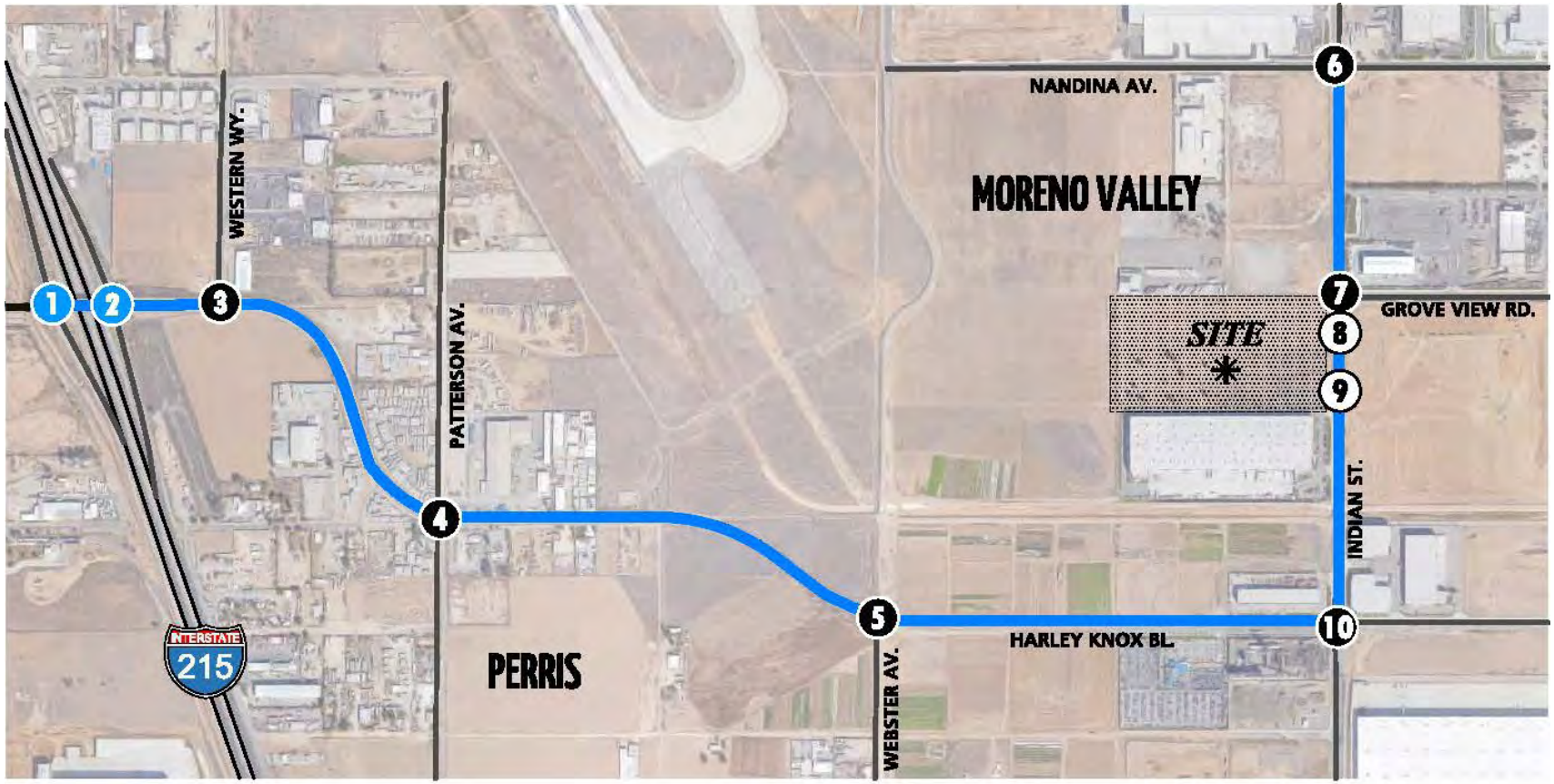

LEGEND:

- (0) = EXISTING INTERSECTION ANALYSIS LOCATION
- (0) = FUTURE INTERSECTION ANALYSIS LOCATION
- (0) = RIVERSIDE COUNTY CMP INTERSECTION ANALYSIS LOCATION
- = ROADWAY SEGMENT ANALYSIS LOCATION

N

NOT TO SCALE

Source: Urban Crossroads, Inc.

Figure 4.1-1
Study Area Intersections

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4.1.2.2 Study Area Roadway Segments

A total of 12 existing and future roadway segments were evaluated in the TIA, and are listed in Table 4.1-2, and are identified at previous Figure 4.1-1. Consistent with the City TIA Preparation Guide, Study Area Roadway segments analyzed comprise those on either side of Study Area intersections to which the Project would contribute 50 or more peak hour trips.

Table 4.1-2
Study Area Roadway Segments

ID	Street	Segment	Jurisdiction
1	Harley Knox Bl.	I-215 SB Ramps to I-215 NB Ramps	Perris
2	Harley Knox Bl.	I-215 NB Ramps to Western Way	Perris
3	Harley Knox Bl.	East of Western Way	Perris
4	Harley Knox Bl.	West of Patterson Ave.	Perris
5	Harley Knox Bl.	East of Patterson Ave.	Perris
6	Harley Knox Bl.	West of Webster Ave.	Perris
7	Harley Knox Bl.	East of Webster Ave.	Perris
8	Harley Knox Bl.	West of Indian St.	Perris
9	Indian St.	South of Nandina Ave.	Moreno Valley
10	Indian St.	North of Grove View Rd.	Moreno Valley
11	Indian St.	South Grove View Rd.	Moreno Valley
12	Indian St.	North of Harley Knox Bl.	Perris

Source: *Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA* (Urban Crossroads, Inc.) June 29, 2016.

4.1.2.3 Study Area Freeway Ramps

The Project TIA evaluated freeway off-ramp operations at the freeway-to-arterial interchange of the I-215 Freeway at Harley Knox Boulevard. Locations of these off-ramps (Study Area Intersections No.s 1 and 2) are listed at previous Table 4.1-1, and are identified at previous Figure 4.1-1.

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4.1.2.4 Study Area Congestion Management Plan (CMP) Facilities

The I-215 Freeway at Harley Knox Boulevard freeway-to-arterial interchanges (noted above at Section 4.1.2.3) are the only evaluated Congestion Management Plan (CMP) facilities in the Study Area.

4.1.3 LEVELS OF SERVICE AND TIA METHODOLOGIES

Level of Service (LOS) is a term which denotes "quality of flow" in traffic operating conditions. LOS classifications of "A" through "F" correlate to traffic congestion from best to worst, respectively. Level A represents free-flow conditions with no congestion. Conversely, Level F represents severe congestion with stop-and-go conditions, and is considered to be unsatisfactory.

4.1.3.1 Intersection Analysis Methodology

Signalized Intersections

City of Moreno Valley, City of Perris, County of Riverside

Level of Service (LOS) criteria identified in *Highway Capacity Manual* (Transportation Research Board) 2010 (HCM) are employed by the City of Moreno Valley, the City of Perris, and the County of Riverside in evaluation of intersection operations. For signalized intersections, average stopped vehicle delay is used to determine LOS. Table 4.1-3 presents applicable HCM LOS criteria for signalized intersections.

Table 4.1-3
Signalized Intersection LOS Criteria

Level of Service	Description	Average Control Delay, seconds
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and	35.01 to 55.00

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Table 4.1-3
Signalized Intersection LOS Criteria

Level of Service	Description	Average Control Delay, seconds
	individual cycle failures are noticeable.	
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up

Source: *Highway Capacity Manual* (Transportation Research Board) 2010; Chapter 16.

Caltrans

Per Caltrans TIA Guidance, the Project TIA employed Synchro (Version 8 Build 806) intersection modeling in evaluation of Caltrans signalized intersection operations. Signal timing for the evaluated intersections was obtained from Caltrans District 8.

Unsignalized Intersections

All unsignalized intersections in the Study Area are located within the City of Moreno Valley. The City of Moreno Valley requires the operations of unsignalized intersections be evaluated using the methodology described the HCM. Unsignalized intersection LOS is based on the weighted average control delay expressed in seconds per vehicle as summarized at Table 4.1-4.

Table 4.1-4
Unsignalized Intersection LOS Criteria

LOS	Description	Average Control Delay
A	Little or no delays.	0 to 10.00
B	Short traffic delays.	10.01 to 15.00
C	Average traffic delays.	15.01 to 25.00
D	Long traffic delays.	25.01 to 35.00
E	Very long traffic delays.	35.01 to 50.00
F	Extreme traffic delays with intersection capacity exceeded.	> 50.00

Source: *Highway Capacity Manual* (Transportation Research Board) 2010; Chapter 17.

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4.1.3.2 Roadway Segment Capacity Analysis

City of Moreno Valley roadway segment operations were evaluated pursuant to methodologies identified in the City TIA Preparation Guide. Roadway segments within the City of Perris were evaluated employing the City of Perris Daily Roadway Capacity Values presented in the City of Perris General Plan Circulation Element.

Roadway segment capacities for various roadway classifications within the City of Moreno Valley and the City of Perris are summarized at Table 4.1-5. These roadway capacities are baseline estimates employed for master planning purposes. Under real world conditions, roadway segment functional capacities are determined in large part by controlling intersection efficiencies.[2]

Table 4.1-5
Roadway Segment Capacity LOS Descriptors

City of Moreno Valley					
Facility Type	**Level of Service Capacity**				
	A	**B**	**C**	**D**	**E**
Six Lane Divided Arterial	33,900	39,400	45,000	50,600	56,300
Four Lane Divided Arterial	22,500	26,300	30,000	33,800	37,500
Four Lane Undivided Arterial	15,000	17,500	20,000	22,500	25,000
Two Lane Industrial Collector	7,500	8,800	10,000	11,300	12,500
Two Lane Undivided Residential	N/A	N/A	N/A	N/A	2,000
City of Perris					
Facility Type	**Level of Service Capacity**				
	A	**B**	**C**	**D**	**E**
Six Lane Urban Arterial	32,340	37,730	43,100	48,500	53,900
Four Lane Urban Arterial	21,540	25,130	28,700	32,300	35,900
Two Lane Arterial	10,800	12,600	14,400	16,200	18,000
Four Lane Secondary Arterial	15,540	18,130	20,700	23,300	25,900
Two Lane Collector	7,800	9,100	10,400	11,700	13,000

Source: *Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA* (Urban Crossroads, Inc.) June 29, 2016.

[2] Other factors that can affect functional roadway capacities include but are not limited to: roadway access control; roadway grades; roadway design geometrics; sight distance; vehicle mix; and accommodation of pedestrian/bicycle traffic.

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Recognizing the defining effects of intersection efficiencies on roadway segments, a review of the more detailed peak hour intersection and progression analysis is warranted in connection with any roadway segment capacity analyses. The more detailed peak hour intersection analyses explicitly account for factors that act to determine functional, as opposed to theoretic baseline roadway segment capacities and operational efficiencies. Typically, roadway segment widening is only recommended if the peak hour analysis for controlling intersections indicates a requirement for additional intermediary roadway segment lanes.

4.1.3.3 Freeway Off-Ramp Queuing Analysis Methodology

Consistent with Caltrans requirements, freeway ramp vehicle progression has been assessed to determine potential queuing impacts at potentially affected Study Area freeway ramp locations. A vehicle is considered "queued" whenever it is traveling at less than 10 feet/second and is either at the STOP bar or behind another queued vehicle. The 50th percentile or average queue represents the typical queue length for peak hour traffic conditions. The 95th percentile queue is not necessarily ever observed; rather, it is based on statistical estimates. That is, if traffic were observed for 100 cycles, the 95th percentile queue would be the queue experienced during the 95th busiest cycle (or five percent of the time). Please refer to the Project TIA (EIR Appendix B) for additional detail regarding freeway off-ramp queuing analysis methodology and protocols.

4.1.4 Regional and Local Funding Mechanisms and Required Fees

Transportation improvements within the Study Area are funded via a combination of fee assessments and monies collected through the Western Riverside Council of Governments Transportation Uniform Mitigation Fee (TUMF) program, the City of Moreno Valley Development Impact Fee (DIF) program, and proportional Fair Share Fees. These fee assessment mechanisms are described below.

4.1.4.1 Western Riverside Council of Governments TUMF Program

The Western Riverside Council of Governments (WRCOG) is responsible for establishing and updating TUMF rates. TUMF assessments are based on the Transportation Uniform Mitigation Fee Nexus Study 2009 Update Final Report (and

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amendments).[3] In summary, the Nexus Study correlates projected growth within the TUMF assessment area with related transportation improvements needed to support that growth. Under the TUMF program, developers may be credited for dedication of land or the construction of facilities otherwise paid through TUMF assessments.

The County of Riverside collects TUMF for new development located in the City of Moreno Valley, including TUMF that would be assessed of the Project. Fees submitted to the County are passed on to the WRCOG, the TUMF program administrator.

The TUMF Program empowers area Zone Committees to prioritize implementation of TUMF facilities. The Project is located in the TUMF Program Central Zone. TUMF Central Zone Program Improvements are illustrated TIA Appendix 1.2, *Central TUMF Zone Transportation Improvement Program*. The TUMF Central Zone Map can be accessed at: <http://www.wrcog.cog.ca.us/tumf/tumf-jurisdictional-maps>. Within the Central Zone and the TIA Study Area, the I-215/Harley Knox Boulevard interchange, Harley Knox Boulevard, Indian Street, and Perris Boulevard are designated TUMF facilities.

4.1.4.2 City of Moreno Valley Development Impact Fee (DIF) Program

The City of Moreno Valley Development Impact Fee (DIF) program imposes and collects fees to fund infrastructure and services necessary to support growth within the City. The transportation facilities component of the City DIF program provides funding for roadways and intersections necessary to accommodate traffic growth projected to occur pursuant to buildout of the City General Plan as reflected in the City General Plan Circulation Element. The City DIF program provides for funding of transportation facilities that are not part of, or which may exceed improvements identified and covered by the TUMF program. Under the City DIF program, the City may grant to developers a credit against fees for construction of facilities identified in the list of DIF-funded improvements. Periodic traffic counts, review of traffic accidents, and evaluation of traffic trends are performed periodically in order to identify necessary transportation

[3] An updated Nexus Study is expected to be finalized and released in late 2016. The 2015 Draft TUMF Nexus Study & Appendices are available for review at http://www.wrcog.cog.ca.us/tumf/resources.

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facilities improvements, and to assign DIF monies to those improvements through the City Capital Improvements Program (CIP).

The Project Applicant would pay requisite DIF pursuant to incumbent City ordinance requirements. Payment of requisite DIF would satisfy the Applicant's mitigation responsibilities for potentially significant cumulative impacts affecting DIF-funded facilities.

4.1.4.3 Fair Share Fees

The Project Applicant's mitigation responsibilities for cumulative impacts affecting area transportation facilities may also be fulfilled through payment of fair-share fees. Fair share fees would be paid in instances where required transportation system improvements are not otherwise funded by TUMF and/or DIF programs noted above.

4.1.5 Jurisdictional LOS Deficiency Definitions

LOS deficiencies as defined by the City of Moreno Valley and other potentially affected jurisdictions are presented below. For intersections and roadway segments outside of the City of Moreno Valley, this EIR evaluates the Project LOS impacts based LOS deficiencies as defined by the governing jurisdictional agency.

City of Moreno Valley

LOS D is applicable to intersections and roadway segments that are adjacent to freeway on/off ramps, and/or adjacent to employment generating land uses. LOS C is applicable to all other intersections and roadway segments. Boundary intersections are assumed to be LOS D.

To determine whether the addition of Project traffic at a Study Area intersection would result in a deficient intersection LOS condition, the City of Moreno Valley employs the following criteria:

- A deficiency would occur at a Study Area intersection if the addition of Project trips would cause the peak hour level of service of the Study Area intersection to change from acceptable "pre-project" LOS to an unacceptable LOS.

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- For Study Area intersections already operating at an unacceptable LOS, a deficiency would occur if the Project would add 50 trips or more.

Roadway segment deficiencies would occur when operating conditions would be degraded below LOS D.

City of Perris

Per the City of Perris General Plan Circulation Element, the minimum acceptable operating condition for City of Perris intersections within the Study Area is LOS D. LOS D is also the minimum acceptable operating condition for City of Perris roadway segments within the Study Area.

Intersection deficiencies would occur when operating conditions are degraded below LOS D.

Roadway segment deficiencies would occur when operating conditions would be degraded below LOS D.

Caltrans

Caltrans guidelines (excerpted below) were employed in the analysis of Study Area Caltrans facilities, or facilities under shared Caltrans jurisdiction.

> The LOS for operating State highway facilities is based upon Measures of Effectiveness (MOE) identified in the Highway Capacity Manual (HCM). Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities; however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than this target LOS, the existing MOE should be maintained.[4]

[4] *Guide for the Preparation of Traffic Impact Studies* (State of California, Department of Transportation) December 2002.

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Within these analyses, LOS D is defined as the minimum acceptable operating condition for Caltrans-maintained facilities. Deficiencies at Caltrans facilities would occur when operating conditions are degraded below LOS D.

4.1.6 EXISTING CONDITIONS

4.1.6.1 Overview

The following discussions describe the existing Study Area circulation network as well as other transportation modes that exist within, or are available to, the Study Area.

4.1.6.2 Existing Roadway System

Factors affecting access to the Project site are the location of the site and the efficiency of the serving roadway system. Efficiency of access is a function of travel time, convenience, directness, and available capacity of the routes utilized in accessing the development.

Regional Access

Interstate 215 (I-215) exists in a generally northeast to southwest orientation approximately 1 mile westerly of the Project site. I-215 is a six-lane freeway traversing western Riverside County, and connects Interstate 15 (I-15) to the south to the High Desert communities located in San Bernardino County to the north.

State Route 60 (SR-60) is a major regional transportation route existing in an east-west orientation approximately 5 miles northerly of the Project site; and interchanges with I-215 approximately 6.25 miles northwesterly of the Project site. SR-60 is a six-lane (including two HOV lanes) freeway providing connection between Los Angeles to the west and Interstate 10 (I-10) to the east.

Project Site Access

Access to the Project site will be provided via two driveways onto Indian Street, the Project site easterly boundary. Indian Street connects to Harley Knox Boulevard approximately 0.1 miles southerly of the Project site. Harley Knox Boulevard interchanges with I-215 approximately 1.5 miles easterly of the Project site.

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4.1.6.3 Truck Routes

Figure 4.1-2 depicts City of Moreno Valley truck routes. Within the Study Area, Indian Street and Nandina Avenue are designated City of Moreno Valley truck routes. City of Perris truck routes are depicted at Figure 4.1-3. Within the Study Area, Harley Knox Boulevard (east of the I-215 Freeway), Western Way, and Indian Street are designated City of Perris truck routes.

4.1.6.4 Alternative Transportation Modes

Bus Service

Bus service is currently provided to the Project area by the Riverside Transit Authority (RTA), a public transit agency serving the unincorporated Riverside County region and the City of Moreno Valley. In the vicinity of the Project site, RTA currently provides bus service along Perris Boulevard via Route 19. Transit route and schedules are available at: http://www.riversidetransit.com/index.php/riding-the-bus/maps-schedules.

Pedestrian and Bicycle Facilities

City of Moreno Valley Master Plan of Trails and Bikeway Plan are presented at Figures 4.1-4 and 4.1-5, respectively. Within the Study Area, Indian Street is a Class III Bike Route. Class III Bike Routes are on-street signed routes shared with motor vehicle traffic.

4.1.6.5 Existing Traffic Volumes

Existing peak hour traffic volumes within the Study Area were determined by field traffic counts conducted April 2015, while schools were in session. Weekday morning (AM) peak traffic conditions are represented by traffic counts conducted for the two-hour period between 7:00 and 9:00 a.m. Weekday evening (PM) peak hour traffic conditions are represented by traffic counts conducted for the two-hour period from 4:00 to 6:00 p.m.

4.1.6.6 Intersection LOS Analysis, Existing Conditions

Under Existing Conditions, all Study Area intersections operate at acceptable LOS. Please refer also to TIA Table 3-1.

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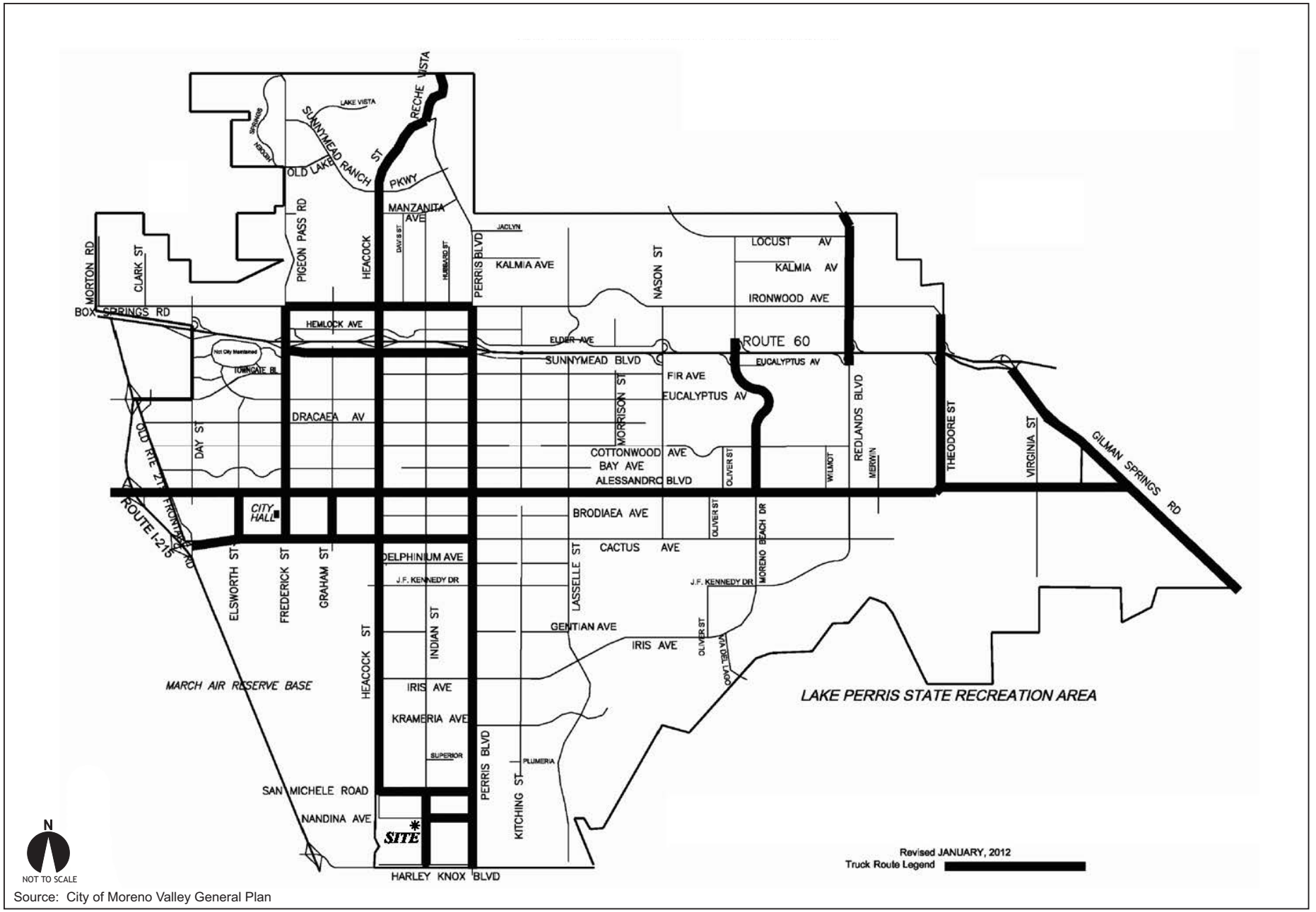

Source: City of Moreno Valley General Plan

Figure 4.1-2
City of Moreno Valley Truck Routes

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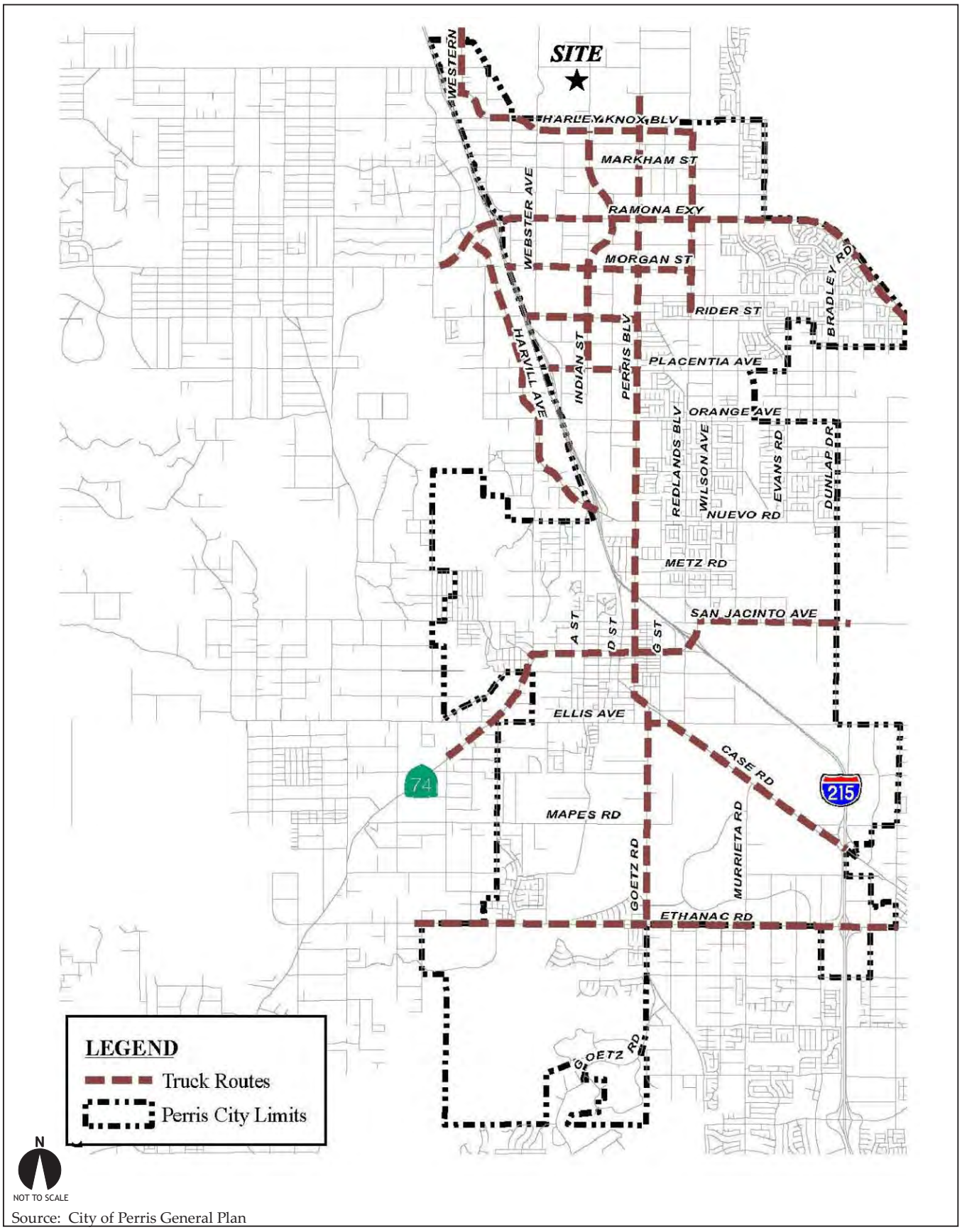

Source: City of Perris General Plan

Figure 4.1-3
City of Perris Truck Routes

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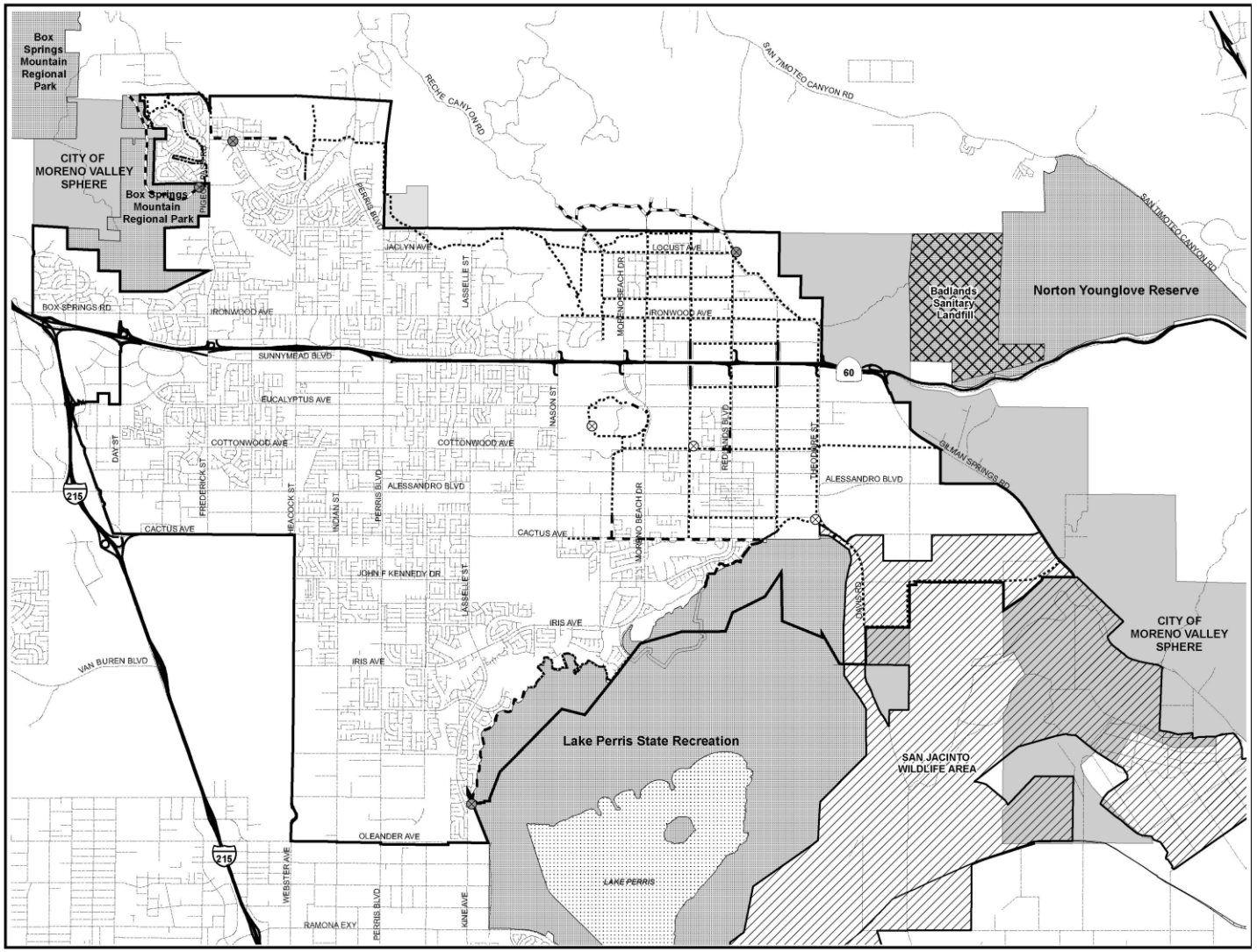

Source: City of Moreno Valley General Plan

Figure 4.1-4
Moreno Valley Master Plan of Trails

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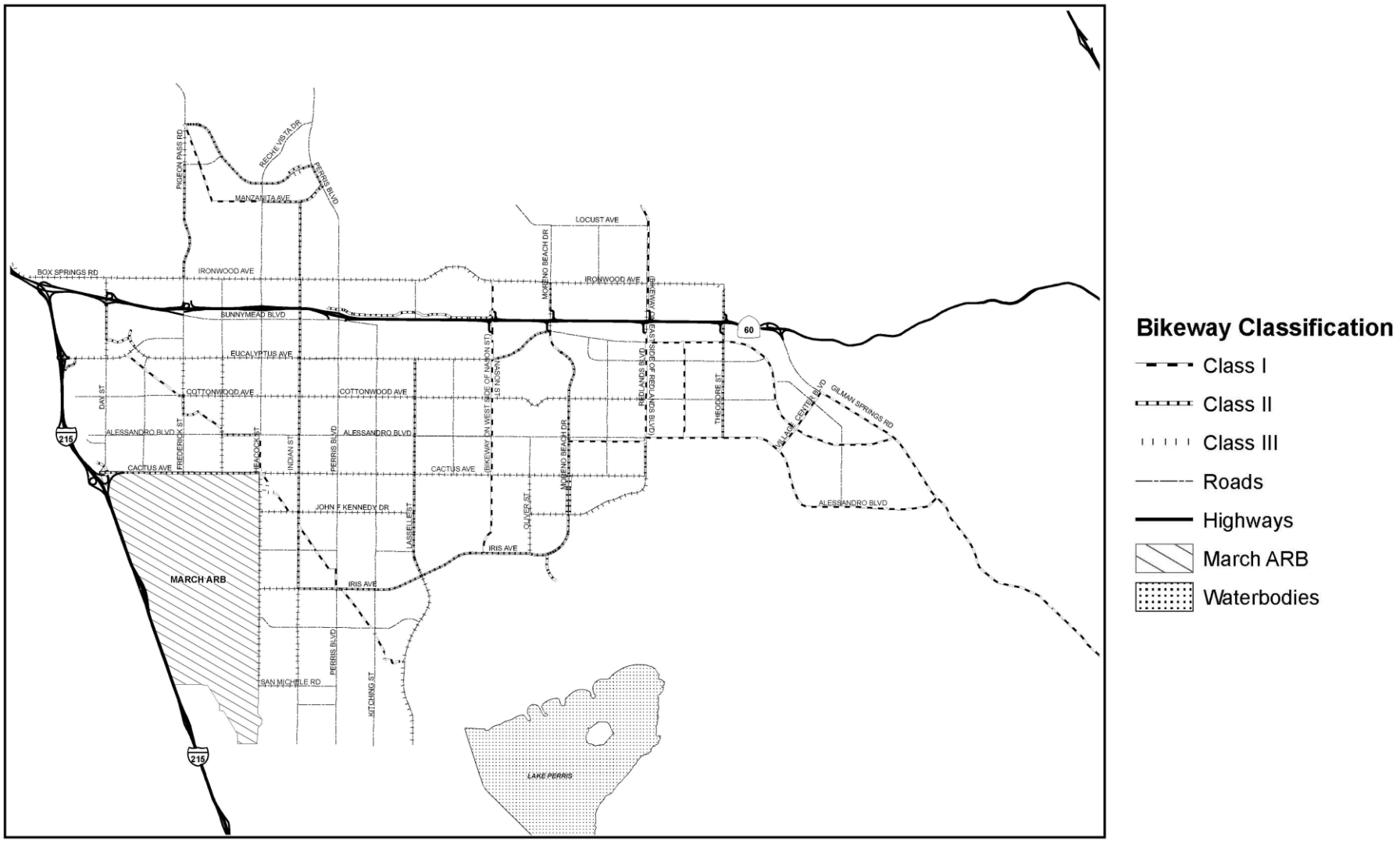

Source: City of Moreno Valley General Plan

Figure 4.1-5
Moreno Valley Bikeway Plan

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4.1.6.7 Roadway Segment Analysis, Existing Conditions

Under Existing Conditions, all Study Area roadway segments operate at acceptable LOS. Please refer to TIA Table 3-2.

4.1.6.8 Freeway Ramp Queuing Analysis, Existing Conditions

Under Existing Conditions, all Study Area freeway ramp queue lengths would not exceed ramp queuing capacities. Please refer also to TIA Table 3-3.

4.1.7 FUTURE TRAFFIC CONDITIONS

Traffic that would be generated by the Project, and traffic attributable to other growth and development within the Study Area, are described below.

4.1.7.1 Project Trip Generation

ITE Trip Generation Rates

Trip generation rates used in this analysis establish likely maximum traffic volumes and related impacts attributable to the Project. Trip generation rates were obtained from Institute of Transportation Engineers (ITE) *Trip Generation Manual*; 9th Edition, 2012 (ITE Trip Generation Manual). Consistent with the land uses proposed by the Project, ITE land use categories employed are:

- ITE Land Use 140 (Manufacturing); and
- ITE Land Use 152 (High-Cube Warehouse).

PCE Trips

To account for the varying sizes and operational characteristics of the range of cars and trucks accessing the Project site, trip generation rates for High Cube Warehouse and Manufacturing uses reflect conversion of passenger car and truck trips to Passenger Car Equivalents (PCEs). PCE conversion rates employed in the TIA area as follows:

- Passenger cars (PCE baseline) = 1.0 PCE;
- 2-axle trucks = 1.5 PCE;

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- 3-axle trucks = 2.0 PCE;
- 4-axle trucks = 3.0 PCE.

The Project would generate an estimated 1,472 PCE trip-ends per day; approximately 158 AM PCE peak hour trips; and approximately 167 PM PCE peak hour trips. Project passenger car and truck trip generation expressed as PCEs are summarized at Table 4.1-6. Please refer also to the Project TIA Section 4.1, *Project Trip Generation* for further details regarding Project trip generation characteristics.

Table 4.1-6
Project Trip Generation Summary (PCEs)

Land Use	Quantity	Units Thousand Square Feet (TSF)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Manufacturing	89.270	TSF							
Passenger Cars:			31	9	40	14	26	40	209
Truck Trips:									
2-axle:			5	1	6	2	4	6	31
3-axle:			13	4	17	6	11	17	87
4+-axle:			30	9	39	14	25	39	204
Net Truck Trips (PCE)			48	14	62	22	40	62	322
Subtotal Mfg. Trips (PCE)			***79***	***23***	***102***	***36***	***66***	***102***	***531***
High-Cube Warehouse	357.080	TSF							
Passenger Cars:			20	9	29	9	20	29	371
Truck Trips:									
2-axle:			2	1	4	1	3	5	75
3-axle:			3	1	4	2	3	5	81
4+-axle:			13	6	19	8	18	26	414
Net Truck Trips (PCE)			18	8	27	11	24	36	570
Subtotal Whse. Trips (PCE)			***38***	***17***	***56***	***20***	***44***	***65***	***941***
TOTAL NET TRIPS (PCE)			**117**	**40**	**158**	**56**	**110**	**167**	**1,472**

Source: *Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA* (Urban Crossroads, Inc.) June 29, 2016.

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While available or planned alternative travel modes (e.g., public transit, walking, or bicycling) may diminish the Project's forecasted traffic volumes, the traffic-reducing potentials of alternative travel modes were not considered in the Project trip generation estimates. Project traffic volumes considered in this analysis therefore represent the likely maximum Project traffic generation and traffic impact condition.

4.1.7.2 Project Trip Distribution

Trip distribution establishes directional orientation of approaching and departing traffic. Trip distribution is influenced by location of the site in relation to nearby residential, employment and recreational opportunities, and proximity to the regional freeway system. Based on the Project truck and passenger trip distribution patterns, peak hour trips were assigned at Study Area intersections. Please refer to Figures 4.1-6, 4.1-7.

4.1.7.3 Traffic Growth

Opening Year Traffic Conditions

To account for growth in traffic between Existing Conditions (2015) and the Project Opening Year (2020), a compounded annual traffic growth rate of 2 percent was assumed (10.41 percent aggregate growth in background traffic for the period 2015—2020). The 2 percent annual growth rate is intended to capture non-specific ambient traffic growth.

In context, the TIA's assumed 2 percent compounded annual growth rate is considered a reasonable approximation of future traffic growth when compared to demographic projections reflected in other local and regional growth modeling efforts. More specifically, the Southern California Association of Governments SCAG 2012—2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) growth forecasts for the City of Moreno Valley assume the City population to increase from 187,400 in 2008 to 255,200 by the year 2035, or an approximate 1.15 percent growth rate

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compounded annually.[5] The RTP/SCS assumed growth in households over the same 27-year period reflects an increase from 51,100 households to 72,800 households; a rate of 1.32 percent compounded annually. At the upper end of assumed RTP/SCS growth rates, employment over the same 27-year period is projected to increase from 32,300 jobs to 64,400 jobs; a rate of approximately 2.59 percent compounded annually.

The 2 percent compounded annual traffic growth rate employed in the TIA reflects the fact that not all persons comprising population growth, household growth, or employment growth would translate on a one to one basis as a new vehicle trip in the region; and establishes a judicious midrange estimate lying between the RTP/SCS assumed regional population growth rate (1.15 percent) and the RTP/SCS assumed regional employment growth rate (2.59 percent).

Traffic generated by other known or probable related projects was then added to the TIA ambient traffic growth estimates. These related projects are in part already accounted for in the assumed annual 2 percent increase in ambient traffic growth noted above; and in certain instances these related projects would likely not be implemented and functional within the 2020 Opening Year time frame assumed for the Project. The resultant assumed traffic growth rate employed in the TIA (2 percent annual ambient growth + traffic generated by all related projects) would therefore tend to overstate rather than understate background cumulative traffic impacts under 2020 conditions.

[5] On March 9, 2015, SCAG, as Lead Agency, published a Notice of Preparation (NOP) of a Program Environmental Impact Report ("PEIR") for the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy ("2016 RTP/SCS"). The 2016 RTP/SCS was adopted April 7, 2016, subsequent to distribution of the EIR NOP (March 14, 2016). The 2016 RTP/SCS forecasts reflect reduced growth rates and total growth when compared to the 2012 – 2035 RTP/SCS forecasts reflected in the EIR. The EIR 2012 – 2035 RTP/SCS growth projections, and traffic impacts related to that growth are therefore likely overstated when compared to the 2016 – 2040 RTP/SCS growth projections.

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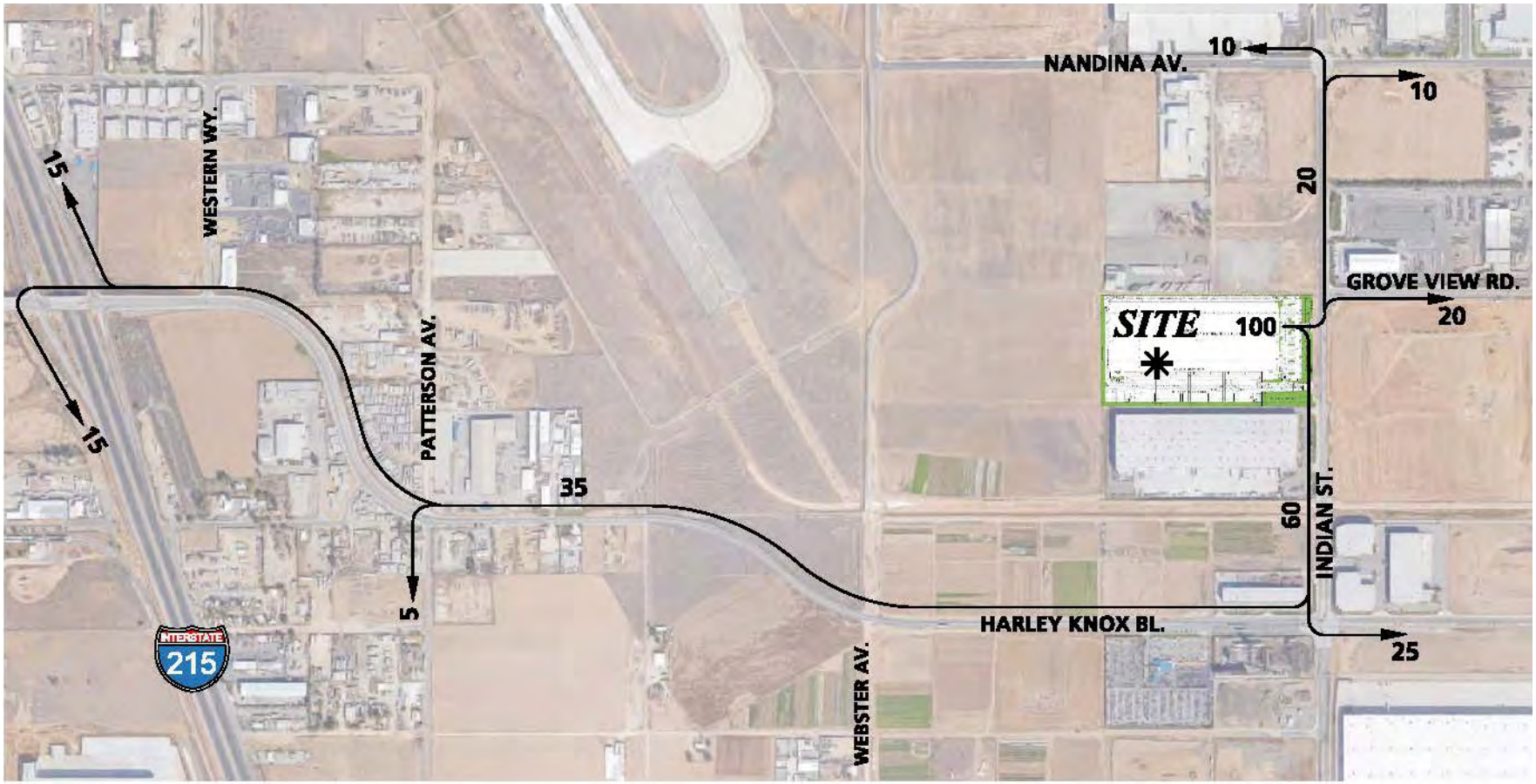

Source: Urban Crossroads, Inc.

Figure 4.1-6
Project (Passenger Car) Trip Distribution

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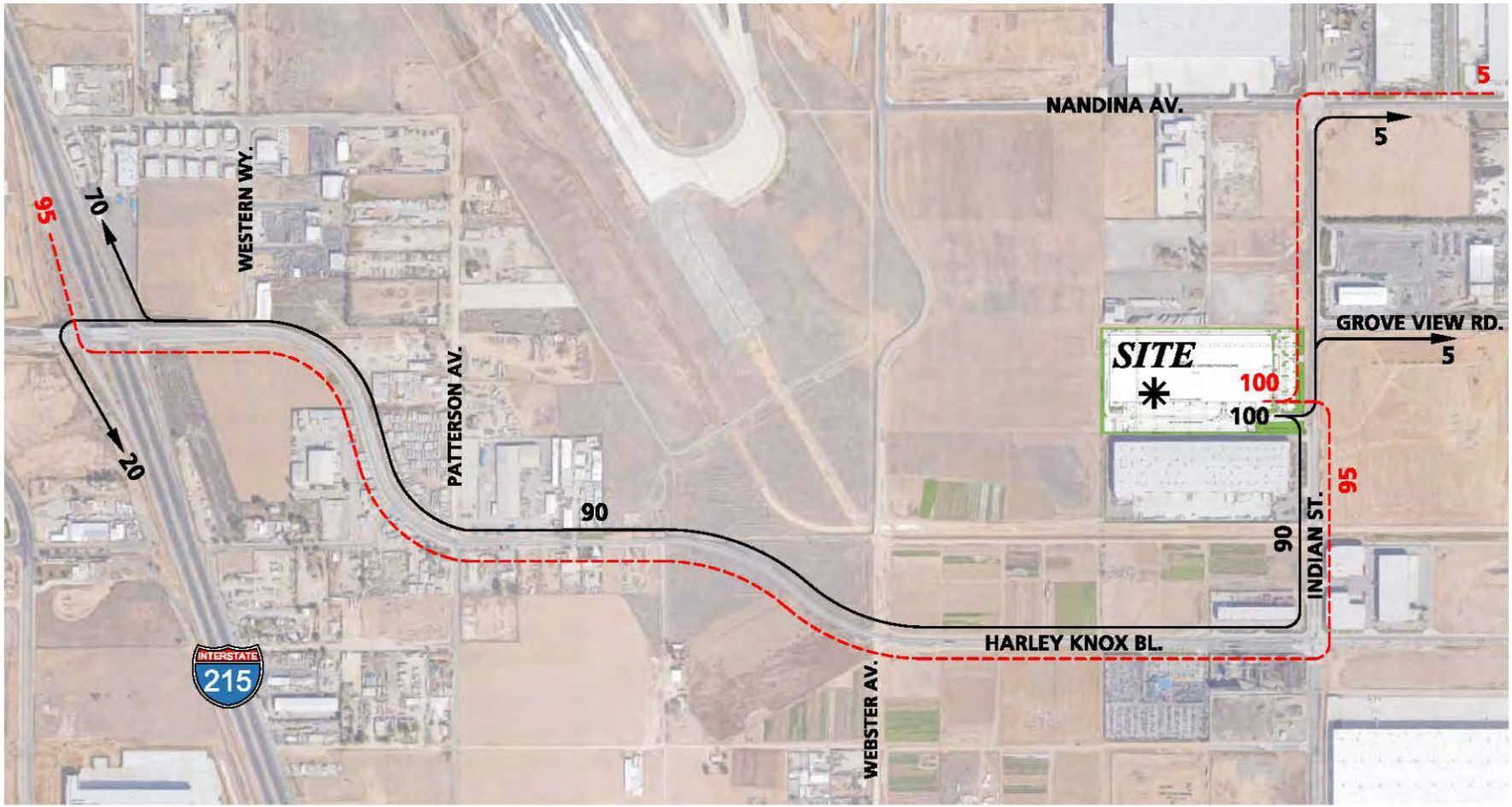

LEGEND:

10 = PERCENT TO/FROM PROJECT

= OUTBOUND

= INBOUND

N

NOT TO SCALE

Source: Urban Crossroads, Inc.

Figure 4.1-7
Project (Truck) Trip Distribution

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4.1.7.4 Project Improvements

As discussed at EIR Section 3.0, *Project Description*, Project implementation would involve the construction of on-site and site adjacent roadway and intersection improvements. Under Existing-with-Project Conditions, these improvements would act to avoid or preclude potentially significant traffic/transportation impacts in the vicinity of the Project site. These same improvements would, under Opening Year with Project Conditions, would act to incrementally reduce potential future localized circulation system impacts. Improvements that would be constructed by the Project illustrated at Figure 4.1-8, and are described below.

General:

- Unless otherwise stipulated by the Lead Agency, roadways adjacent to the Project site, site access points and site-adjacent intersections would be designed and constructed consistent with City of Moreno Valley General Plan Circulation Element roadway classifications and respective cross-sections.
- On-site traffic signing and striping plans would be submitted concurrent with submittal of Project construction plans and would be subject to City review and approval.
- Sight distance at each Project access point would conform to City of Moreno Valley sight distance standards and would be subject to City review and approval.

Indian Street:

- Construct Indian Street from the northern Project boundary to the southern Project boundary at its ultimate half-section width as a Minor Arterial (88-foot right-of-way), in compliance with applicable City of Moreno Valley standards.

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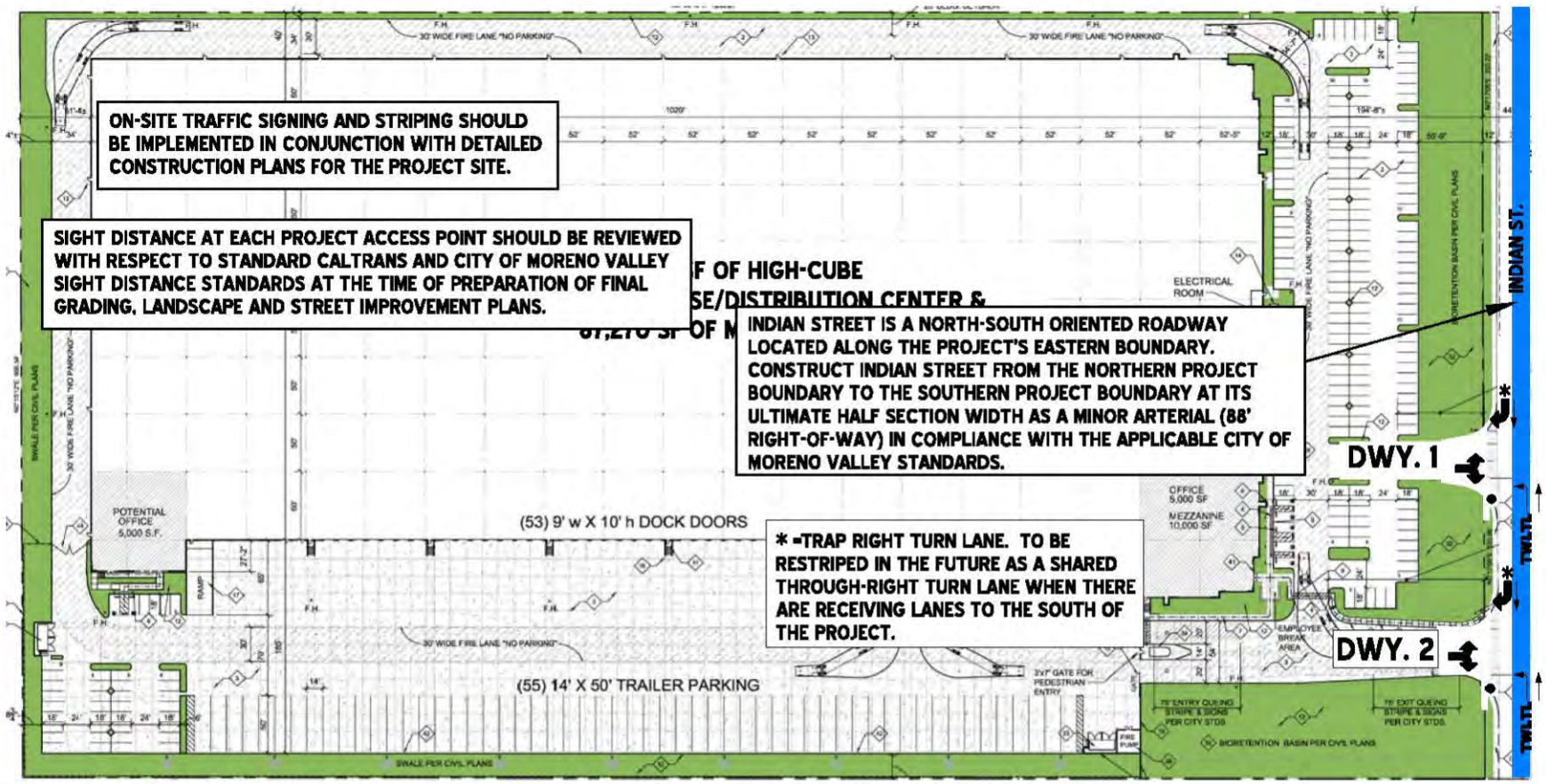

Source: Urban Crossroads, Inc.

Figure 4.1-8
Site Access Improvements

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4.1.8 STANDARDS OF SIGNIFICANCE

Consistent with the standards of significance outlined in the *CEQA Guidelines*, traffic and circulation impacts would be considered potentially significant if the Project would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;

- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;

- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;

- Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);

- Result in inadequate emergency access; or

- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

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4.1.9 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.1.9.1 Introduction

The following discussions focus on topical issues where it has been determined that the Project may result in potentially significant traffic and circulation impacts, pursuant to comments received through the NOP process, and based on the analysis presented within this Section and included within the EIR Initial Study. Of the CEQA standards of significance considerations identified above at Section 4.1.8, and as substantiated in the Initial Study (EIR Appendix A), the Project's potential impacts under the following topics are determined to be less-than-significant, and are not further substantively discussed here:

- Result in inadequate emergency access; or

- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

All other CEQA topics addressing the Project's potential traffic/transportation impacts are discussed below. Please also refer to Initial Study Checklist Item XVII., *Transportation/Traffic*.

4.1.9.2 Impact Considerations

Study Area traffic conditions without and with the Project are summarized within the subsequent discussions, followed by identification of the Project's potential impacts to Study Area traffic/transportation facilities.

Under the CEQA topic: "Potential to conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system . . ." potential impacts are identified for Existing and Opening Year Conditions. Sub-topics evaluated under each of these scenarios include:

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- Intersection LOS Analysis;
- Roadway Segment LOS Analysis; and
- Freeway Ramp Progression Analysis.

Under the CEQA topic: "Conflict with an applicable congestion management program [CMP] but not limited to a level of service standards and travel demand measures. . ." CMP facilities within the Study Area are identified, and potentially significant Project impacts affecting these facilities are summarized. Interstate 215 (I-215) facilities within the Study Area are designated CMP components. Project impacts to CMP facilities are coincident with analyses of Intersection LOS noted above.

Under the CEQA topic: "Substantially increase hazards to a design feature . . ." the analysis presented summarizes Project design and operational concepts that act to avoid hazardous conditions and ensure adequate emergency access.

4.1.9.3 Mitigation Considerations

Mitigation or avoidance of potentially significant transportation/circulation system impacts attributable to the Project would be achieved through construction of necessary improvements and/or Project fee payments that would be assigned to construction of required improvements.

Project Improvements

The Project would construct improvements necessary to ensure safe and efficient access and operating conditions along adjacent roadways. These improvements are summarized below.

General:

- Unless otherwise stipulated by the Lead Agency, roadways adjacent to the Project site, site access points and site-adjacent intersections would be designed and constructed consistent with City of Moreno Valley General Plan Circulation Element roadway classifications and respective cross-sections.

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- On-site traffic signing and striping plans would be submitted concurrent with submittal of Project construction plans and would be subject to City review and approval.
- Sight distance at each Project access point would conform to City of Moreno Valley sight distance standards and would be subject to City review and approval.

Indian Street:

- Construct Indian Street from the northern Project boundary to the southern Project boundary at its ultimate half-section width as a Minor Arterial (88-foot right-of-way), in compliance with applicable City of Moreno Valley standards.

Improvements Funded by Directed Fee Assessments

The Project would also pay all requisite fees directed to the completion of other necessary Study Area traffic improvements at locations where Project traffic would contribute to projected cumulative circulation system deficiencies. Required fees would be assessed and collected in total prior to Project implementation, or as otherwise stipulated by the Lead Agency.

The Project would participate in, and would be subject to requirements of, the following fee programs: Fair Share Fee assessments; City of Moreno Valley Development Impact Fee (DIF) Program; and the WRCOG Transportation Uniform Mitigation Fee (TUMF) Program.

Notwithstanding the Project's full compliance with fee assessments and fee programs noted above, Project payment of fees would not ensure timely completion of required improvements. Within these discussions, potentially significant impacts that are addressed through Project fee payments are considered to remain significant and unavoidable pending completion of the required improvements. Traffic/transportation fees that would be assessed of the Project along with a description of fee programs assessment and fee assignment mechanisms are summarized below.

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Fair Share Fees

The Project TIA recommends improvements for each potentially impacted facility within the Study Area, and compares these with improvements already identified and included in other established fee programs (i.e., TUMF, City of Moreno Valley DIF). If an impacted facility requires improvements other than, or in addition to, those already identified within a regional or local fee program, the Project would contribute a "fair-share" percentage toward the costs of the recommended improvements. Fair share fees assessed of the Project in this manner would be collected by the City and deposited to a dedicated Capital Improvement Project account, created for the express purpose of constructing the required improvements.

Providing context for and summarizing traffic volumes generated by the Project, Table 4.1-7 identifies Project peak hour traffic volumes as a percentage additional peak hour traffic that would be generated between Existing (2015) Conditions and Opening Year (2020) Conditions. The Project's increment of new traffic volumes also provide an indication of the relative effects of Project traffic in the context of additional traffic that would be generated within the Study Area. The Project's proportional impacts at affected intersections would be the basis for fair share fee assessments. Please refer also to TIA Table 1-6, *Project Fair Share Contributions*.

Table 4.1-7
Project Traffic Volumes as Percent of Total New Traffic for the Period 2015—2020
(AM and PM peak hours)

ID No.	Location	Existing [A]	Project [B]	2020 With Project [C]	Total New Traffic [C—A]=[D]	Project Fair Share [B]÷[D]
3	Western Way/ Harley Knox Bl.					
	AM Peak Hour	1,597	103	3,720	2,123	4.9%
	PM Peak Hour	1,549	109	3,946	2,397	4.5%
7	Indian St./ Grove View Rd.					
	AM Peak Hour	607	34	2,658	2,051	1.3%
	PM Peak Hour	1,026	35	3,178	2,152	1.1%

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Table 4.1-7
Project Traffic Volumes as Percent of Total New Traffic for the Period 2015—2020
(AM and PM peak hours)

ID No.	Location	Existing [A]	Project [B]	2020 With Project [C]	Total New Traffic [C—A]=[D]	Project Fair Share [B]÷[D]
10	Indian St./ Harley Knox Bl.					
	AM Peak Hour	1,508	125	3,667	2,159	3.4%
	PM Peak Hour	1,739	131	4,205	2,466	3.1%

Source: *Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA* (Urban Crossroads, Inc.) June 29, 2016.

Riverside County Transportation Uniform Mitigation Fee (TUMF) Program

The TUMF program is administered by the Western Riverside Council of Governments (WRCOG) based on a regional Nexus Study completed in early 2003 and updated in 2009 to address major changes in right of way acquisition and improvement cost factors. The TUMF Program (Program) identifies a network of backbone and local roadways that are needed to accommodate growth of the region through 2035. The Program was established to ensure that new development contributes equitably to construction of area-serving facilities needed to maintain requisite level of services.

TUMF assessments are imposed on new residential, industrial, and commercial development through application of the TUMF Ordinance, and assessed fees are collected at the building or occupancy permit stage. TUMF assessments are adjusted on a regular basis to ensure that fees collected keep pace with inflation, and local construction and labor costs. The Project Applicant would pay requisite TUMF assessments at the prevailing rate in effect pursuant to the TUMF Ordinance.

Project payment of requisite TUMF assessments satisfies its obligations under the TUMF Ordinance, acting to sustain the regional transportation system. WRCOG is responsible for administration of the TUMF program, to include assignment of fees toward completion of TUMF-funded improvements within the region.

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City of Moreno Valley Development Impact Fee (DIF) Program

City of Moreno Valley Development Impact Fee (DIF) payments are collected from new residential, commercial and industrial development for the purpose of funding roadways and intersections necessary to support buildout of the City pursuant to the City General. The City's DIF program includes facilities that are not part of, or which may exceed improvements identified and covered by, the WRCOG TUMF program.

The Project Applicant would be subject to the City's DIF program, and would pay the requisite City DIF at incumbent City Ordinance rates. Under the City's DIF program, the City may grant developers a credit against specific components of fees when those developers construct certain facilities identified in the list of improvements funded by the DIF program.

4.1.9.4 Impact Statements

Potential Impact: *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.*

Impact Analysis:

Existing (2015) and Opening Year (2020) Traffic Conditions

OVERVIEW

The following discussions summarize potential traffic impacts within the Study Area reflecting implementation of the Project under Existing (2015) and Opening Year (2020) Conditions. Less-than-significant impacts are noted, and mitigation measures are proposed for those impacts determined to be potentially significant.

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EXISTING CONDITIONS WITHOUT-PROJECT AND WITH-PROJECT TRAFFIC ANALYSIS

The Existing Conditions without-Project and with-Project Traffic Analysis identifies potential traffic/transportation impacts that would occur assuming implementation of the Project under Existing Conditions, and provides an indication of the incremental effects of the Project without the addition of assumed future cumulative traffic growth. This analysis indicates where Project traffic alone would cause or result in new potentially significant impacts. In these instances, the Project Applicant would timely construct required improvements.

The Existing-with-Project analysis also identifies currently deficient LOS conditions to which the Project would contribute additional traffic; and/or extra-jurisdictional or shared jurisdictional locations that would be adversely affected by Project traffic. Improvements that would resolve these pre-existing and/or extra-jurisdictional or shared jurisdictional deficiencies are identified. Project mitigation responsibilities in these instances, where impacts are cumulative or affect extra-jurisdictional or shared jurisdictional deficiencies, are addressed through payment of requisite traffic impact fees. Under the Existing-with-Project Condition, all site access and site-adjacent roadway facilities to be constructed by the Project are assumed to be in place.

Intersection LOS Analysis–Existing Conditions

Under Existing and Existing-with-Project Conditions, all Study Area intersections would operate at acceptable LOS, and no additional improvements would be required. Please refer also to TIA Table 5-1.

Level of Significance: Less-Than-Significant.

Roadway Segment LOS Analysis—Existing Conditions

Under Existing and Existing-with-Project Conditions, all Study Area roadway segments would operate at acceptable LOS, and no additional improvements would be required. Please refer also to TIA Table 5-2.

Level of Significance: Less-Than-Significant.

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Freeway Off-Ramp Queuing Analysis

Under Existing and Existing-with-Project Conditions, Study Area freeway off-ramp queueing capacities would not be exceeded, and no additional improvements would be required. Please refer also to TIA Table 5-3.

Level of Significance: Less-Than-Significant.

OPENING YEAR (2020) WITHOUT-PROJECT AND WITH-PROJECT TRAFFIC ANALYSIS

The Year 2020-without-Project Condition reflects existing (2015) traffic volumes, plus additional background traffic that would be generated by generalized ambient growth within the region, as well as traffic generated by known or probable related projects. The Opening Year (2020) with Project Condition reflects addition of Project traffic to the Year 2020-without-Project Condition.

Intersection LOS Analysis–Opening Year (2020) Conditions

Intersections with identified deficiencies under either Opening Year (2020)-without-Project Conditions or Opening Year (2020)-with-Project Conditions are presented at Table 4.1-8. These are considered potentially significant cumulative impacts resulting from existing traffic, ambient traffic growth within the region, traffic generated by related projects, and Project traffic. Recommended improvements for each potentially affected intersection are listed subsequently at Table 4.1-9.

Level of Significance: Potentially Cumulatively Significant. Under Opening Year-with-Project Conditions, traffic generated by the Project in combination with traffic from regional growth and related projects would result in potentially significant cumulative impacts at the Study Area intersections listed at Table 4.1-8.

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Table 4.1-8
Opening Year (2020) Conditions
Peak Hour Intersection Deficiencies

ID No.	Intersection	LOS Std.	Year 2020 Without Project				Year 2020 With Project			
			Delay[1] (secs.)		LOS[3]		Delay[1] (secs.)		LOS[3]	
			AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps/Harley Knox Bl.	D	**180.2**	**120.3**	**F**	**F**	**199.3**	**131.2**	**F**	**F**
2	I-215 NB Ramps/Harley Knox Bl.	D	**78.5**	**>200.0**	**E**	**F**	**81.9**	**>200.0**	**F**	**F**
3	Western Way / Harley Knox Bl.	D	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
4	Patterson Ave. / Harley Knox Bl.	D	**74.0**	**85.2**	**E**	**F**	**86.5**	**114.1**	**F**	**F**
7	Indian St. / Grove View Rd.	D	**78.5**	25.6	**F**	D	**98.4**	26.3	**F**	D
10	Indian St. / Harley Knox Bl.	D	29.6	**>200.0**	C	**F**	34.4	**>200.0**	C	**F**

Source: *Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA* (Urban Crossroads, Inc.) June 29, 2016.

Mitigation Measures:

4.1.1 Prior to the issuance of building permits, the Project Applicant shall pay requisite fees toward the construction of Year 2020 improvements as indicated at following Table 4.1-9 and summarized at Table 4.1-12 and illustrated at Figure 4.1-9 at the conclusion of this Section.

Table 4.1-9
Opening Year (2020) Conditions
Peak Hour Intersection LOS-With Improvements

ID No.	Intersection	Traffic Control	Intersection Approach Lanes												Delay (secs.)		Level o Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PI
1	I-215 SB Ramps / Harley Knox Bl.																	
	- Without Project	TS	0	0	0	**2**	1	0	0	2	d	**2**	2	0	39.4	45.5	D	D
	- With Project	TS	0	0	0	**2**	1	0	0	2	d	**2**	2	0	42.1	46.6	D	D
2	I-215 NB Ramps / Harley Knox Bl.																	
	- Without Project	TS	0	1	1	0	0	0	**2**	2	0	0	2	**1>>**	30.8	20.7	C	C
	- With Project	TS	0	1	1	0	0	0	**2**	2	0	0	2	**1>>**	31.8	20.8	C	C
3	Western Way / Harley Knox Bl.																	
	- Without Project	**TS**	0	0	0	0	1	0	**1**	2	0	0	2	d	17.4	35.8	B	D
	- With Project	**TS**	0	0	0	0	1	0	**1**	2	0	0	2	d	21.3	39.6	C	D

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Table 4.1-9
Opening Year (2020) Conditions
Peak Hour Intersection LOS-With Improvements

ID No.	Intersection	Traffic Control	Intersection Approach Lanes												Delay (secs.)		Level o Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
4	Patterson Ave. / Harley Knox Bl.																	
	- Without Project	TS	0	1	0	0	1	d	1	**3**	1	1	**3**	1	24.4	22.2	C	C
	- With Project	TS	0	1	0	0	1	d	1	**3**	1	1	**3**	1	25.3	29.0	C	C
7	Indian St. / Grove View Rd.																	
	- Without Project	**TS**	0	**2**	0	1	**2**	0	0	0	0	1	0	1	6.5	7.1	A	A
	- With Project	**TS**	0	**2**	0	1	**2**	0	0	0	0	1	0	1	9.1	8.7	A	A
10	Indian St. / Harley Knox Bl.																	
	- Without Project	TS	2	2	1	1	2	**1>**	**2**	3	d	1	3	0	17.9	53.3	B	D
	- With Project	TS	2	2	1	1	2	**1>**	**2**	3	d	1	3	0	18.9	53.8	B	D

Source: *Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA* (Urban Crossroads, Inc.) June 29, 2016.
L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d= Defacto Right Turn Lane; **1** = Improvement

Level of Significance after Mitigation: ***Cumulatively Significant and Unavoidable.*** The Project Applicant would pay all requisite fees, acting to offset the Project's proportional contributions to cumulative traffic impacts projected to occur under Opening Year-with-Project Conditions. Notwithstanding, payment of fees pursuant to Mitigation Measure 4.1.1 would not ensure timely completion of required improvements. Thus, while the physical improvements identified may be capable of mitigating potentially significant impacts, these improvements cannot be assured. Moreover, there are not any plans to improve the affected intersection(s) within the Project's estimated opening date, and the City of Moreno Valley does not have an existing agreement with extra-jurisdictional agencies regarding the improvement or timing of improvements at locations along, or beyond the City of Moreno Valley corporate boundaries.

Based on the preceding, pending completion of the required improvements, Project contributions to cumulative impacts under Opening Year-with-Project Conditions are recognized as cumulatively significant and unavoidable at all Study Area intersections listed at previous Table 4.1-8.

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Roadway Segment LOS Analysis—Year 2020 Conditions

Peak hour assessment of intersections located on either side of potentially deficient Study Area roadway segments was conducted to determine if peak hour traffic flows can be accommodated by the roadway segment in question. If it is determined that intersection peak hour traffic flows can be accommodated at the City's stated intersection LOS thresholds, then widening of connecting roadway segments is not recommended.

As indicated at Table 4.1-10, modeled traffic flows for certain Study Area roadway segments indicate potentially significant cumulative LOS deficiencies under Opening Year-with-Project Conditions. Functionally nonetheless, these roadway segments are projected operate acceptably given that the (improved) controlling intersections along the affected roadways would operate acceptably.

Table 4.1-10
Opening Year (2020) Roadway Segment Deficiencies

ID No.	Roadway	Segment Limits	LOS Capacity (ADT)	2020 w/o Project (ADT)	V/C	LOS	2020 w/ Project (ADT)	V/C	LOS	LOS Std.
2	Harley Knox Blvd.	I-215 NB Ramps to Western Way	35,900	35,262	**0.98**	**E**	36,263	**1.01**	**F**	D
3	Harley Knox Blvd.	East of Western Way	25,900	36,133	**1.40**	**F**	37,133	**1.43**	**F**	D
4	Harley Knox Blvd.	West of Patterson Ave.	25,900	35,118	**1.36**	**F**	36,118	**1.39**	**F**	D
9	Indian St.	South of Nandina Ave.	18,750	34,847	**1.86**	**F**	35,007	**1.87**	**F**	D
10	Indian St.	North of Grove View Rd.	18,750	33,724	**1.80**	**F**	33,884	**1.81**	**F**	D
11	Indian St.	South of Grove View Rd.	18,750	26,361	**1.40**	**F**	26,659	**1.42**	**F**	D

Source: *Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA* (Urban Crossroads, Inc.) June 29, 2016.

Level of Significance: Potentially Cumulatively Significant.

Mitigation Measure: Required improvements necessary to achieve acceptable Study Area roadway segment LOS are coincident with through lane improvements required to achieve acceptable LOS at controlling intersections. Pursuant to previous Mitigation Measure 4.1.1, the Project would pay requisite fees toward implementation of required improvements at all Study Area intersections affected by potentially significant

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cumulative impacts under Opening Year with Project conditions. Payment of fees in this manner fulfills the Project's mitigation responsibilities.

Level of Significance after Mitigation: ***Cumulatively Significant and Unavoidable.*** The peak hour intersection analysis presented in the TIA substantiates that the controlling Study Area intersections along potentially deficient roadway segments are anticipated to operate at acceptable LOS with the incorporation of required intersection and lane improvements. As such, roadway lane improvements beyond those identified in Table 4.1-9 does not appear necessary and is not recommended.

Pursuant to Mitigation Measure 4.1.1, the Project would pay requisite fees addressing Study Area intersection LOS deficiencies projected to occur under Opening Year-with-Project Conditions, and in so doing would also address potential roadway segment deficiencies. No additional mitigation is required or recommended.

Payment of fees pursuant to Mitigation Measure 4.1.1 would not however, ensure timely completion of required improvements. Thus, while the physical improvements identified may be capable of mitigating potentially significant impacts, these improvements cannot be assured. Moreover, there are not any plans to improve the affected intersection(s) within the Project's estimated opening date, and the City of Moreno Valley does not have an existing agreement with extra-jurisdictional agencies regarding the improvement or timing of improvements at locations along, or beyond the City of Moreno Valley corporate boundaries.

Based on the preceding, pending completion of the required improvements, Project contributions to cumulative impacts under Opening Year-with-Project Conditions are recognized as cumulatively significant and unavoidable at all Study Area roadway segments listed at previous Table 4.1-10.

Freeway Off-Ramp Queuing Analysis

Under Year 2020-with-Project Conditions, all Study Area freeway ramps queues would conform to Caltrans 95th percentile performance standards with the exception of the I-215 SB Ramps/Harley Knox Boulevard(AM peak hour only). Addition of Project traffic

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under Opening Year Conditions at this location would result in potentially adverse queuing deficiencies, and Project contributions to freeway ramp queuing impacts would be considered cumulatively significant.

Level of Significance: Potentially Cumulatively Significant at I-215 SB Ramps/Harley Knox Boulevard (AM peak hour only).

Mitigation Measures: Required improvements necessary to achieve acceptable queues at I-215 SB Ramps/Harley Knox Boulevard are coincident with improvements required to achieve acceptable intersection LOS at I-215 SB Ramps/Harley Knox Boulevard (Study Area Intersection No.1). Pursuant to previous Mitigation Measure 4.1.1, the Project would pay requisite fees toward implementation of required improvements at all intersections affected by potentially significant cumulative impacts under Opening Year with Project conditions. Payment of fees in this manner fulfills the Project's mitigation responsibilities.

Level of Significance after Mitigation: ***Cumulatively Significant and Unavoidable.*** The Project Applicant would pay all requisite fees, acting to offset the Project's proportional contributions to cumulative traffic impacts projected to occur under Opening Year-with-Project Conditions. Notwithstanding, payment of fees pursuant to Mitigation Measure 4.1.1 would not ensure timely completion of required improvements. Thus, while the physical improvements identified may be capable of mitigating potentially significant impacts, these improvements cannot be assured. Moreover, there are not any plans to improve the affected intersection(s) within the Project's estimated opening date, and the City of Moreno Valley does not have an existing agreement with extra-jurisdictional agencies regarding the improvement or timing of improvements at locations along, or beyond the City of Moreno Valley corporate boundaries.

Based on the preceding, pending completion of the required improvements, Project contributions to cumulative ramp queuing impacts under Opening Year-with-Project Conditions are recognized as cumulatively significant and unavoidable at I-215 SB Ramps / Harley Knox Boulevard (AM peak hour only).

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Freeway Mainline Segment Impact Considerations

A freeway segment impact analysis has been prepared for the Project pursuant to protocols and methodologies, as outlined in Caltrans District 8 *Guide for the Preparation of Traffic Impact Studies*. The Project freeway segment analysis, *Indian Street Commerce Center Supplemental Basic Freeway Segment Analysis* (Urban Crossroads, Inc.) April 27, 2016 is provided in its entirety at EIR Appendix B. Results and conclusions of the Project Freeway Segment Analysis are summarized below.

Caltrans has established level of service (LOS) "D" as the minimum acceptable mainline freeway segment operational condition within the Study Area. Employing this threshold, the addition of Project traffic would result in a less-than-significant traffic impact on the analysis segments for Existing Plus Project traffic conditions. Opening Year Cumulative (2020) traffic growth along the SR-91 and I-215 Freeway is anticipated to exceed the capacity of existing lanes, and would thus result in deficient LOS conditions for seven Study Area freeway mainline segments under Opening Year Cumulative (2020) traffic conditions (please refer to Table 4.1-11, below). The addition of Project traffic would not, however, result in any new freeway segment deficiencies. The Project is anticipated to contribute no more than 25 peak hour one-way trips to the deficient freeway mainline segments.

Table 4.1-11
Freeway Segment Deficiencies (2020 Conditions)

1	I-215, Northbound, University Avenue to Martin Luther King Boulevard
2	I-215, Northbound, Box Springs Road to SR-60/I-215 Freeway
3	I-215, Northbound, Eucalyptus Avenue to Alessandro Boulevard
4	I-215, Northbound, Ramona Expressway to Nuevo Road
5	I-215, Southbound, Eucalyptus Avenue to Alessandro Boulevard
6	I-215, Southbound, Ramona Expressway to Nuevo Road
7	SR-91, Westbound, Riverwalk Parkway to Magnolia Avenue

Source: *Indian Street Commerce Center Supplemental Basic Freeway Segment Analysis* (Urban Crossroads, Inc.) April 27, 2016.

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Level of Significance: Potentially Cumulatively Significant

Mitigation Measures: There are no near-term solutions for the deficiencies noted above; and these freeway mainline segment deficiencies are therefore projected to carry forward to the Project Opening Year Cumulative (2020) conditions evaluated in this Section. Under Opening Year Cumulative (2020) Conditions, the Project would contribute additional traffic to the already deficient I-215 and SR-91 Freeway mainline segment deficiencies noted above. Globally, Project payment of TUMF would fulfill its mitigation responsibilities for contributions for cumulative traffic impacts deficiencies affecting I-215 Freeway mainline segments. However, it is not within the jurisdictional authority or purview of the Lead Agency or Applicant to adopt, implement, or enforce mitigation measures requiring the construction of improvements by Caltrans, or upon facilities within Caltrans' jurisdiction.

There are no feasible mitigation measures that would reduce cumulative freeway mainline segments impacts below significance thresholds. As such, the Project's contributions to Opening Year Cumulative traffic impacts affecting the Study Area freeway segments considered herein are considered cumulatively significant and unavoidable.

Level of Significance after Mitigation: ***Cumulatively Significant and Unavoidable.***

FEE-BASED MITIGATION REQUIREMENTS AND ASSOCIATED INTERSECTION IMPROVEMENTS

Table 4.1-12 summarizes transportation/traffic mitigation improvements necessary to achieve acceptable LOS within the Study Area. Required improvements are identified for each development/analytic scenario considered herein (Existing Conditions, Year 2020 Conditions). DIF, TUMF, and fair share fees paid by the Project would be directed to fund the required improvements. TIA Table 1-5, *Summary of Improvements by Analysis Scenario* provides further detail regarding Study Area traffic improvements, jurisdictional responsibilities and improvement funding sources.

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Table 4.1-12
Improvements by Analytic Scenario

ID No.	Intersection Location	Jurisdiction	Improvements			
			Existing (2015)	Existing w/ Project	2020 w/o Project	2020 w/ Project
1	I-215 SB Ramps / Harley Knox Bl.	Caltrans, Riverside Co.	None	None	Restripe SB approach w/ 2 left turn lanes and shared through-right turn lane	Same
					2nd WB left turn lane	Same
2	I-215 NB Ramps / Harley Knox Bl.	Caltrans, Perris	None	None	2nd EB left turn lane	Same
					WB free-right turn lane	Same
3	Western Way / Harley Knox Bl.	Perris	None	None	Traffic signal	Same
					EB left turn lane	Same
4	Patterson Ave. / Harley Knox Bl.	Perris	None	None	3rd EB through lane	Same
					3rd WB through lane	Same
7	Indian St. / Grove View Rd.	Moreno Valley	None	None	Traffic signal	Same
					Add 2nd NB through lane	Same
					Add 2nd SB through lane	Same
10	Indian St. / Harley Knox Bl.	Perris	None	None	SB right turn lane w/ overlap phasing	Same
					2nd EB left turn lane	Same

Source: *Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA* (Urban Crossroads, Inc.) June 29, 2016.

Figure 4.1-9 schematically illustrates ultimate configurations of required intersection improvements under Existing-with-Project Conditions, and Opening Year (2020) With Project Conditions.

Potential Impact: *Conflict with an applicable congestion management program, including, but not limited to a level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.*

Impact Analysis:

CMP Intersections

Study Area CMP intersections; governing jurisdictional agencies; and LOS Standards are summarized at Table 4.1-13.

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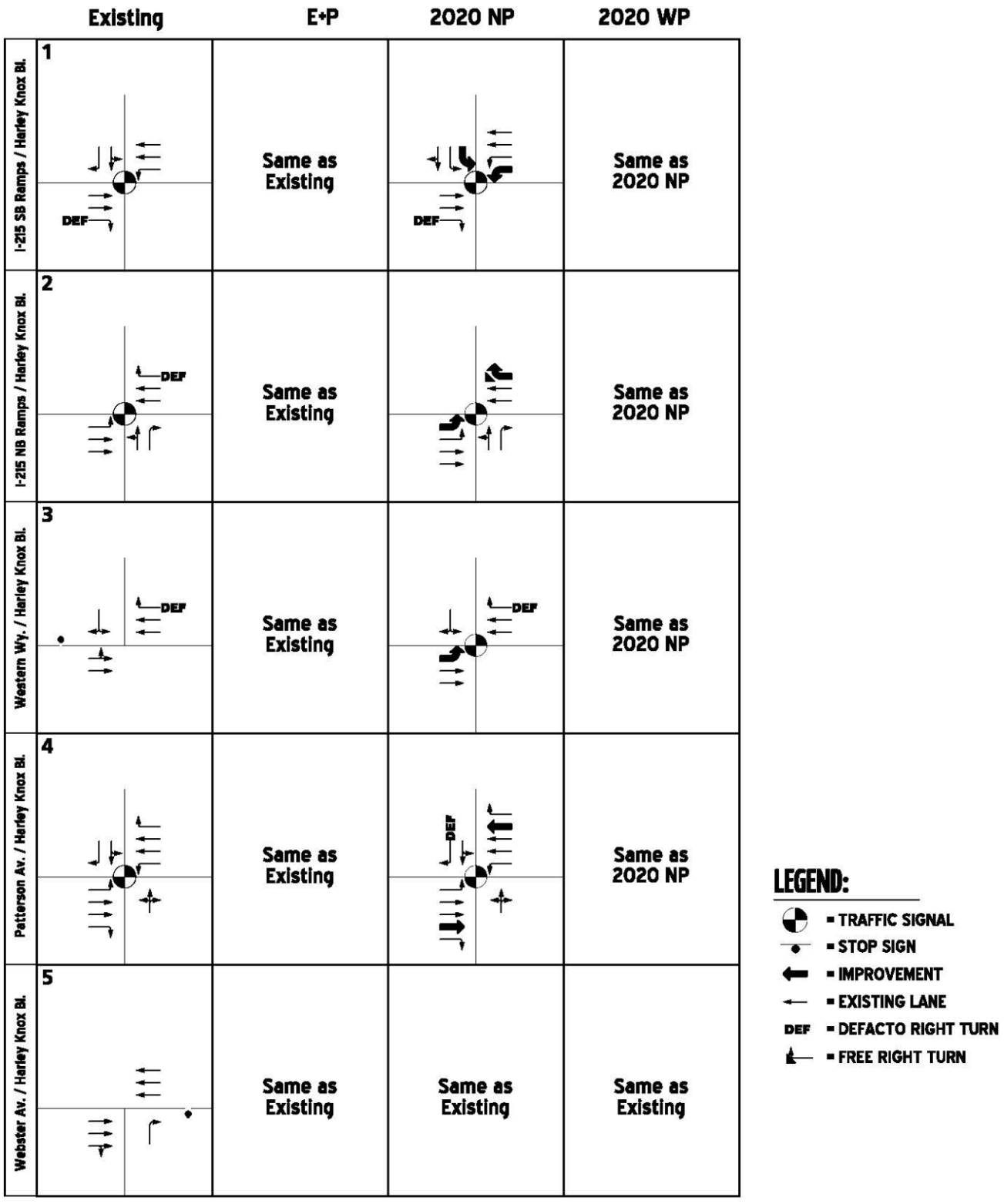

Source: Urban Crossroads, Inc.

Figure 4.1-9
Summary of Improvements (1 of 2)

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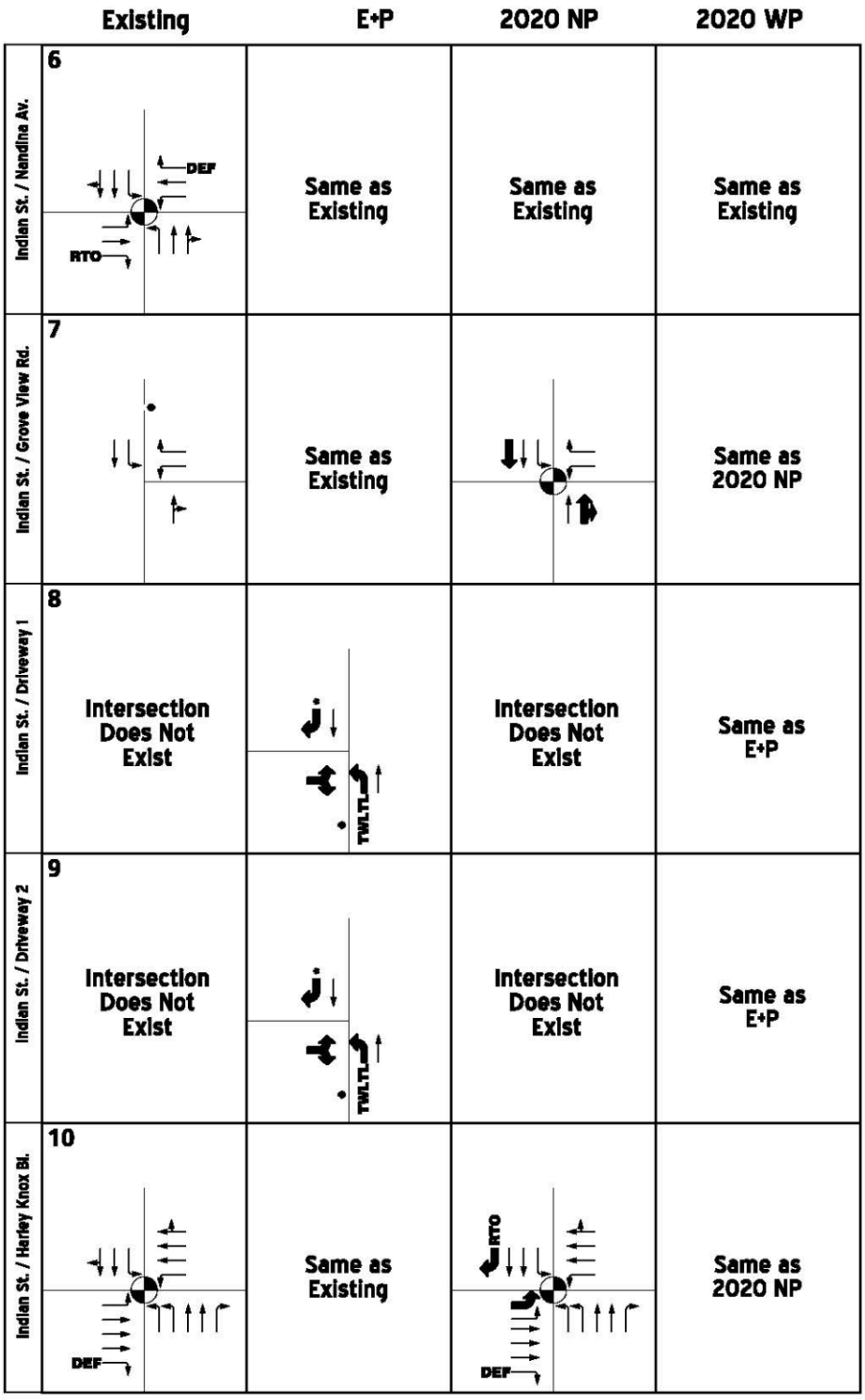

Source: Urban Crossroads, Inc.

Figure 4.1-9
Summary of Improvements (2 of 2)

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Table 4.1-13
Study Area CMP Intersections

ID No.	Intersection Location	Jurisdiction	LOS Std.
1	I-215 Southbound Ramps / Harley Knox Boulevard	Caltrans, Riverside Co.	D
2	I-215 Northbound Ramps / Harley Knox Boulevard	Caltrans, Perris	D

Source: *Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA* (Urban Crossroads, Inc.) June 29, 2016.

Under Existing (2015) without and with Project Conditions, all CMP intersections would operate at acceptable LOS.

CMP deficiencies projected to occur under Opening Year (2020) without and with Project Conditions are summarized at Table 4.1-14.

Table 4.1-14
Study Area Opening Year (2020) CMP Deficiencies

ID No.	Intersection	LOS Std.	Year 2020 Without Project				Year 2020 With Project			
			Delay[1] (secs.)		LOS[3]		Delay[1] (secs.)		LOS[3]	
			AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Harley Knox Bl.	D	**180.2**	**120.3**	**F**	**F**	**199.3**	**131.2**	**F**	**F**
2	I-215 NB Ramps / Harley Knox Bl.	D	**78.5**	**>200.0**	**E**	**F**	**81.9**	**>200.0**	**F**	**F**

Source: *Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA* (Urban Crossroads, Inc.) June 29, 2016.

CMP intersection deficiencies noted at Table 4.1-14 are coincident with impacts affecting Study Area intersections as presented previously in this analysis. Project contributions to impacts at the CMP intersections listed at Table 4.1-14 would be cumulatively considerable under Opening Year-with-Project Conditions. These are potentially significant cumulative impacts.

Level of Significance: Potentially Cumulatively Significant (Study Area Intersection No.'s 1 and 2).

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Mitigation Measures: Mitigation for CMP intersection deficiencies is coincident with other Study Area intersection mitigation identified herein. Please refer to previous Mitigation Measure 4.1.1.

Level of Significance after Mitigation: Cumulatively Significant and Unavoidable.
The Project would pay all requisite fees for improvements at Study Area CMP facilities. However, as discussed herein, fee payments would not ensure timely completion of improvements required for mitigation of cumulatively significant impacts within the Study Area. Pending completion of required improvements, Project contributions to impacts affecting Study Area CMP facilities are therefore considered cumulatively significant and unavoidable.

Potential Impact: *Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).*

Impact Analysis: Efficient and safe access within, and access to, the Project is provided by the Project site plan design concept, site access improvements, and site adjacent roadway improvements included as components of the Project. On-site traffic signing and striping would be implemented in conjunction with detailed construction plans for the Project site.

To ensure appropriate design and implementation of all Project circulation improvements; and the final design of the Project site plan, to include locations and design of proposed driveways, are subject to review and approval by the City prior to the issuance of development permits. In addition, Police and Fire Department representatives would review the Project's plans to ensure that emergency access is provided consistent with Department(s) requirements.

Based on the preceding, the implemented Project inclusive of the design features noted at EIR Section 3.0, *Project Description* would not substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

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It is also recognized that temporary and short-term traffic detours and traffic disruption could result during Project construction activities. Management and control of construction traffic would be addressed through the preparation and submittal of a construction area traffic management plan, to be reviewed and approved by City prior to or concurrent with Project building plan review(s). The Project Construction Traffic Management Plan (Plan), also summarized within the EIR Project Description, would identify traffic controls for any street closures, detours, or other potential disruptions to traffic circulation during Project construction. The Plan would also be required to identify construction vehicle access routes, and hours of construction traffic.

As supported by the preceding discussions and information presented in the EIR Project Description, the potential for the Project to substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Level of Significance: Less-Than-Significant.

Potential Impact: *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.*

Impact Analysis: MARB/IPA is located westerly of the Project site. No other airports of airfields are located proximate to the Project site or would otherwise be potentially affected by the Project.

The Project does not propose or require development or operations that would conflict with state law, federal regulations and/or adopted master plans and land use compatibility plans for MARB/IPA. Nor does the Project propose elements or aspects that would interfere with or obstruct City coordination with laws, regulations or plans for MARB/IPA.

The Project does not propose or require amendment to the Riverside County Airport Land Use Compatibility Plan (Riverside County ALUCP). Nor would the Project

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otherwise interfere or obstruct administration and maintenance of the Riverside County ALUCP.

Project compliance with land use planning provisions and restrictions established under the Riverside County ALUCP is implemented through City and Riverside County ALUC review of Project plans.

The Project's proposed warehouse/manufacturing uses are consistent with permitted or conditionally permitted uses identified under the Riverside County ALUCP Airport Compatibility Matrix (please refer to EIR Section 4.5, *Hazards and Hazardous Materials,* Figure 4.5-1). Further, the EIR discussions of potential Noise impacts (EIR Section 4.4), and potential Hazards/Hazardous Materials impacts (EIR Section 4.5) substantiate that the Project would not be adversely affected by the Airport or Airport operations. Project compatibility with the Airport and Airport Operations is documented further through the Project's Federal Aviation Administration (FAA) *Determination(s) of No Hazard to Air Navigation* (available through the City Community Development Department).

Pursuant to the Riverside County ALUCP, an avigation easement would be recorded against all Project properties within ALUCP Zone B2; deed notice and disclosure would be provided for all Project properties within ALUCP Zone C1.

As supported by the preceding discussion, the potential for the Project to result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks is considered less-than-significant.

Level of Significance: Less-Than-Significant.

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4.2 AIR QUALITY

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4.2 AIR QUALITY

Abstract

This Section identifies and addresses potential air quality impacts that may result from construction and implementation of the Project. More specifically, the air quality analysis evaluates the potential for the Project to result in the following impacts:

- *Conflict with or obstruct implementation of the applicable air quality plan;*
- *Violate any air quality standard or contribute substantially to an existing or projected air quality violation;*
- *Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard, including releasing emissions which exceed quantitative thresholds for ozone precursors;*
- *Expose sensitive receptors to substantial pollutant concentrations;*
- *Create objectionable odors affecting a substantial number of people.*

The following analysis of Project-related air quality impacts supports the following conclusions:

- *Even with application of mitigation, Project operational-source NO_x emissions would exceed applicable South Coast Air Quality Management District (SCAQMD) regional thresholds.*

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- *Project operational-source NO_x emissions exceeding applicable SCAQMD regional thresholds would result in cumulatively considerable air quality impacts.*

- *Project operational-source NO_x emissions exceedances would result in a cumulatively considerable net increase in criteria pollutants (ozone and $PM_{10}/PM_{2.5}$) for which the Project region is non-attainment.*

Other potential air quality impacts of the Project addressed in this Section are either less-than-significant or can be reduced to levels that are less-than-significant with application of the mitigation measures described herein.

4.2.1 INTRODUCTION

This Section presents existing air quality conditions and identifies potential air quality impacts resulting from construction and operations of the Project. Local and regional climate, meteorology and air quality are discussed, as well as existing federal, state and regional air quality regulations. The information presented in this Section is summarized from: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016 (Project AQIA); and *Indian Street Commerce Center Mobile Source Diesel Health Risk Assessment, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016 (Project HRA). The Project AQIA, Project HRA and all supporting modeling data are presented at EIR Appendix C.

4.2.2 AIR QUALITY FUNDAMENTALS

Air pollution comprises many substances generated from a variety of sources, both man-made and natural. Since the rapid industrialization of the twentieth century, almost every human endeavor, especially those relying on the burning of fossil fuels, creates air pollution. Most contaminants are actually wasted energy in the form of unburned fuels or by-products of the combustion process. Motor vehicles are by far the most significant source of air pollutants in urban areas, emitting photochemically reactive hydrocarbons (unburned fuel), carbon monoxide, and oxides of nitrogen. These primary pollutants chemically react in the atmosphere with sunlight and the passage of time to form secondary pollutants such as ozone.

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Air pollutants are generally classified as either primary or secondary pollutants. Primary pollutants are generated daily and emitted directly from the source, whereas secondary pollutants are created over time and occur within the atmosphere as chemical and photochemical reactions take place. Examples of primary pollutants include carbon monoxide (CO), oxides of nitrogen (NO_2 and NO), sulfur dioxide (SO_2), particulate matter (PM_{10} and $PM_{2.5}$), and various hydrocarbons or volatile organic compounds (VOC). Examples of secondary pollutants include ozone (O_3), which is a product of the reaction between NO_x and VOC in the presence of sunlight. Other secondary pollutants include photochemical aerosols.

To aid in the review of discussions presented subsequently in this Section, recurring terms, abbreviations, and acronyms are defined as follows: PPM - Parts per Million; $\mu g/m^3$ - Micrograms Per Cubic Meter; PM_{10} - Particulate Matter Less Than 10 Microns In Diameter; $PM_{2.5}$ - Particulate Matter Less Than 2.5 Microns In Diameter.

4.2.2.1 Criteria Air Pollutants

Criteria air pollutants are those air contaminants for which air quality standards currently exist. Currently, state and federal air quality standards exist for ozone, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), carbon monoxide (CO), suspended particulate matter (PM_{10} and $PM_{2.5}$), and lead. California has also set standards for visibility, sulfates, hydrogen sulfide, and vinyl chloride. Evaluated criteria air contaminants, or their precursors, typically also include volatile organic compounds (VOC), oxides of nitrogen (NO_x), sulfur oxides (SO_x), and respirable particulate matter (PM_{10} and $PM_{2.5}$). In general, the Basin as a whole has experienced decreases in criteria air pollutant levels when compared to historic conditions (please refer to EIR Section 4.2.5, Regional Air Quality Trends). Pollutant properties and sources, and potential health effects are summarized below.

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Carbon Monoxide

Properties and Sources

Carbon monoxide (CO) is a colorless, odorless, toxic gas formed by incomplete combustion of fossil fuels. CO levels tend to be highest during the winter mornings, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest CO concentrations are generally found near congested transportation corridors and intersections. Other sources include aircraft, off-road vehicles, stationary equipment (e.g., fuel-fired furnaces, gas water heaters, fireplaces, gas stoves, gas dryers, charcoal grills), and landscape maintenance equipment such as lawnmowers and leaf blowers.

Human Health Effects

A consistent association between increased ambient CO levels and higher-than-average rates of hospital admissions for heart diseases (such as congestive heart failure) has been observed. Carbon monoxide can cause decreased exercise capacity, and adversely affects conditions with an increased demand for oxygen supply (fetal development, chronic hypoxemia, anemia, and diseases involving the heart and blood vessels). Exposure to CO can cause impairment of time interval estimation and visual function.

Ozone

Properties and Sources

Ozone (O_3) is a highly reactive and unstable gas that is formed when volatile organic compounds (VOC) and oxides of nitrogen (NO_x), which are both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of the pollutant.

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Human Health Effects

Short-term exposure to ozone can cause a decline in pulmonary function in healthy individuals including breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue and immunological changes. Additionally, an increase in the frequency of asthma attacks, cough, chest discomfort and headache can result.

A correlation has been reported between elevated ambient ozone levels and increases in daily hospital admission rates and mortality as a result of long-term ozone exposure. A risk to public health implied by altered connective tissue metabolism and host defense in animals has also been reported.

Oxides of Nitrogen

Properties and Sources

Oxides of nitrogen (NO_x) serve as integral participants in the process of photochemical smog production. During combustion, oxygen reacts with nitrogen to produce NO_x. Two major forms of NO_x are nitric oxide (NO) and nitrogen dioxide (NO_2). Natural causal sources or originators of NO_x include lightning, soils, wildfires, stratospheric intrusion, and the oceans. Natural sources accounted for approximately seven percent of 1990 emissions of NO_x for the United States (EPA 1997). Atmospheric deposition of NO_x occurs when atmospheric or airborne nitrogen is transferred to water, vegetation, soil, or other materials. Acid deposition involves the deposition of nitrogen and/or sulfur acidic compounds that can harm natural resources and materials. The major source of NO_x in the Basin is on-road vehicles. Stationary commercial and service source fuel combustion are other contributors.

Human Health Effects

Exposure to NO_x may alter sensory responses or impair pulmonary function, and may increase incidence of acute respiratory disease including infections and respiratory symptoms in children. Difficulty in breathing in healthy individuals as well as bronchitic groups may also occur. NO_x is also an ozone precursor. Health effects of ground-level ozone include: aggravated asthma; reduced lung capacity; increased

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respiratory illness susceptibility; increased respiratory and cardiovascular hospitalizations; and premature deaths.

Sulfur Dioxide

Properties and Sources

Sulfur dioxide (SO_2) is a colorless, pungent gas. At levels greater than 0.5 ppm, SO_2 has a strong odor. Sulfuric acid is formed from sulfur dioxide, which is an aerosol particle component that affects acid deposition. Anthropogenic, or human-caused, sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. SO_2 is a precursor to sulfates and PM_{10}.

Human Health Effects

Health effects of SO_2 include higher frequencies of acute respiratory symptoms (including airway constriction in some asthmatics and reduction in breathing capacity leading to severe difficulties) and diminished ventilatory function in children. Very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Lead

Properties and Sources

Lead (Pb) is a solid heavy metal that can exist in air pollution as an aerosol particle component. An aerosol is a collection of solid, liquid, or mixed-phase particles suspended in the air. It was first regulated as an air pollutant in 1976. Leaded gasoline was first marketed in 1923 and was used in motor vehicles until around 1970. The exclusion of lead from gasoline helped to decrease emissions of lead in the United States from 219,000 to 4,000 short tons per year between 1970 and 1997. Lead-ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources emanate from the dust of soils contaminated with lead-based paint and solid waste disposal.

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Lead concentrations once exceeded the state and federal air quality standards by a wide margin, but have not exceeded state or federal air quality standards at any regular monitoring station since 1982. Lead is no longer a gasoline additive, accounting for substantive reductions in airborne lead concentrations throughout the Basin.

Human Health Effects

Lead adversely affects the development and function of the central nervous system, leading to learning disorders, distractibility, lower IQ and increased blood pressure. An increase in blood lead levels may impair or decrease hemoglobin synthesis. Lead poisoning can cause anemia, lethargy, seizures, and death.

Particulate Matter

Properties and Sources

Particulate matter is a generic term that defines a broad group of chemically and physically different particles (either liquid droplets or solids) that can exist over a wide range of sizes. Examples of atmospheric particles include those produced from combustion (diesel soot or fly ash), light (urban haze), sea spray (salt particles), and soil-like particles from re-suspended dust. Fugitive dust is defined as any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of human activities (Rule 403, Fugitive Dust, SCAQMD).

Within air quality analyses, particulate matter is categorized by diameter: PM_{10} and $PM_{2.5}$. PM_{10} refers to particulate matter that is 10 microns or less in diameter (1 micron is one millionth of a meter, or one micrometer [µm]). $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in diameter. The size of particles can determine the residence time of the material in the atmosphere. $PM_{2.5}$ has a longer atmospheric lifetime than PM_{10} and, therefore, can be transported over longer distances.

Particulate matter originates from a variety of stationary and mobile sources. Stationary sources that generate particulate matter include: fuel combustion for electric utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in

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agriculture; erosion from tilled lands; waste disposal and recycling. Mobile or transportation-related sources that generate particulate matter include highway vehicles, non-road vehicles and fugitive dust from paved and unpaved roads. Diesel Particulate Matter (DPM) is a mixture of many exhaust particles and gases that is produced when an engine burns diesel fuel. As the result of California Air Resources Board (CARB) regulatory actions, DPM emissions within the Basin have been reduced when compared to historic levels, and will continue to decline.

Human Health Effects

A consistent correlation between elevated ambient PM_{10} levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed.

Many compounds found in diesel exhaust are carcinogenic, including sixteen compounds that are classified as possibly carcinogenic by the International Agency for Research on Cancer. DPM includes the particle-phase constituents in diesel exhaust. Some short-term (acute) effects of diesel exhaust include eye, nose, throat and lung irritation, as well as coughs, headaches, light-headedness and nausea. Diesel exhaust is a major source of ambient particulate matter pollution, and numerous studies have linked elevated particle levels in the air to increased hospital admission, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. DPM in the Basin poses the greatest cancer risk of all identified toxic air pollutants.

Valley Fever may also be transmitted through PM_{10} and $PM_{2.5}$ emissions. "Valley Fever is a fungal infection caused by coccidioides organisms. It can cause fever, chest pain and coughing, among other signs and symptoms. Two species of coccidioides fungi cause valley fever. These fungi are commonly found in the soil in specific areas and can be stirred into the air by anything that disrupts the soil, such as farming, construction and wind. The fungi can then be breathed into the lungs and cause valley fever, also known as acute coccidioidomycosis. Mild cases of valley fever usually resolve on their own. In

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more severe cases, doctors prescribe antifungal medications that can treat the underlying infection."[1]

Volatile Organic Compounds

Properties and Sources

Volatile Organic Compounds (VOCs), also termed Reactive Organic Gases (ROGs) are defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. It should be noted that there is no state or national ambient air quality standard for VOCs because they are not classified as criteria pollutants. They are regulated, however, because a reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are also transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility. The major sources of VOCs in the Basin are on-road motor vehicles and solvent evaporation. VOCs are also an ozone precursor.

Benzene is a commonly occurring VOC within the Basin. Typical sources of benzene emissions include: gasoline service stations (fuel evaporation), motor vehicle exhaust, tobacco smoke, and oil and coal incineration. Benzene is also sometimes employed as a solvent for paints, inks, oils, waxes, plastic, and rubber. It is used in the extraction of oils from seeds and nuts. It is also used in the manufacture of detergents, explosives, dyestuffs, and pharmaceuticals.

Human Health Effects

Health effects of ground-level ozone include: aggravated asthma; reduced lung capacity; increased respiratory illness susceptibility; increased respiratory and cardiovascular hospitalizations; and premature deaths.

[1] Mayo Clinic Staff. "Diseases and Conditions-Valley Fever." *Mayo Clinic*. N.p., 27 May 2015. Web. 13 Oct. 2015.

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Benzene is a known carcinogen. Short-term (acute) exposure to high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, unconsciousness can occur. Long-term (chronic) occupational exposure to high doses by inhalation has caused blood disorders, including aplastic anemia and lower levels of red blood cells.

4.2.3 SETTING

4.2.3.1 Local and Regional Climate

The Project site is located in the South Coast Air Basin (SCAB, Basin) within the jurisdiction of SCAQMD. The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county Basin (Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino Counties), and the Riverside County portions of the Salton Sea Air Basin and Mojave Desert Air Basin.

The 6,745-square-mile SCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Los Angeles County portion of the Mojave Desert Air Basin is bounded by the San Gabriel Mountains to the south and west, the Los Angeles/Kern County border to the north, and the Los Angeles/San Bernardino County border to the east. The Riverside County portion of the Salton Sea Air Basin is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley.

Persistent climatic conditions and variations in temperature, wind, humidity, precipitation, and ambient sunshine significantly influence air quality in the SCAB. Annual average temperatures throughout the SCAB vary from the low to mid 60s (degrees Fahrenheit). Due to a decreased marine influence, easterly portions of the SCAB exhibit greater variability in average annual temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures ranging from 47°F

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in central Los Angeles to 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures exceeding 100°F.

Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide to sulfates is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. It should be noted that these effects decrease with distance from the coast.

More than 90 percent of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB, with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14-½ hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas," each year. During the dry season, which coincides with the months of

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maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind.

Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal areas.

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NO_x and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

The distinctive climate of the Project area and the SCAB is determined by its terrain and geographical location. The Basin is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with

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high mountains forming the remainder of the perimeter. Wind patterns across the south coastal region are characterized by westerly and southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season.

4.2.3.2 Existing Air Quality

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect, as well as a summary of the health effects of each pollutant regulated under these standards are included in the following Table 4.2-1.

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O_3, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are not equaled or exceeded at any time in any consecutive three-year period; and the federal standards (other than O_3, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The O_3 standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

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Table 4.2-1
State and National Criteria Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	State Standard	National Primary Standard	National Secondary Standard	Human Health and Atmospheric Effects	Major Sources
Ozone	1 hour 8 hours	0.09 ppm[1] 0.07 ppm[2]	-- 0.075 ppm	Same as Primary Standard	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when reactive organic gases (ROG) and nitrogen oxides (NOx) react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
Carbon Monoxide	1 hour 8 hours	20 ppm 9 ppm	35 ppm 9 ppm	-- --	Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
Nitrogen Dioxide	1 hour Annual Average	0.18 ppm 0.030 ppm	100 ppb 0.053 ppm	-- Same as Primary Standard	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
Sulfur Dioxide	1 hour 3 hours 24 hours Annual Average	0.25 ppm -- 0.04 ppm --	75 ppb -- 0.14 ppm 0.030 ppm	-- 0.5 ppm -- --	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
Respirable Particulate Matter (PM_{10})	24 hours Annual Average	50 $\mu g/m^3$ 20 $\mu g/m^3$	150 $\mu g/m^3$ --	Same as Primary Standard	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, fuel combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
Fine Particulate Matter ($PM_{2.5}$)	24 hours Annual Average	-- 12 $\mu g/m^3$	35 $\mu g/m^3$ 12 $\mu g/m^3$	Same as Primary Standard	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of

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Table 4.2-1
State and National Criteria Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	State Standard	National Primary Standard	National Secondary Standard	Human Health and Atmospheric Effects	Major Sources
						other pollutants, including NOx, sulfur oxides, and organics.
Lead	Monthly Average Quarterly Rolling 3-Mo. Avg.	1.5 $\mu g/m^3$ -- --	-- 1.5 $\mu g/m^3$ 0.15 $\mu g/m^3$	Same as Primary Standard	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction.	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
Hydrogen Sulfide	1 hour	0.03 ppm	None	None	Nuisance odor (rotten egg smell), headache and breathing difficulties (higher concentrations)	Geothermal Power Plants, Petroleum Production and Refining.
Sulfates	24 hour	25 $\mu g/m^3$	None	None	Breathing difficulties, aggravates asthma, reduced visibility	Produced by the reaction in the air of SO_2.
Visibility Reducing Particles	8 hour	Light extinction of 0.23/km; visibility of 10 miles or more	None	None	Reduces visibility, reduced airport safety, lower real estate value, discourages tourism.	See PM_{10}/$PM_{2.5}$.

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.
Notes:
[1] PPM = parts per million; $\mu g/m^3$ = micrograms per cubic meter
[2] This concentration was approved by the California Air Resources Board on April 28, 2005 and became effective May 17, 2006.

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Regional Air Quality

The SCAQMD monitors regional air quality through measurement and quantification of various criteria pollutants at 30 monitoring stations located throughout the air district. In 2012, the latest year of record, the federal and state ambient air quality standards (NAAQS and CAAQS) were exceeded on one or more days for ozone, PM_{10}, and $PM_{2.5}$ at most monitoring locations. No areas of the SCAB exceeded federal or state standards for SO_2, CO, or sulfates. Attainment designations for the SCAB are provided at Table 4.2-2.

Table 4.2-2
Attainment Status of Criteria Pollutants in the South Coast Air Basin (SCAB)

Pollutant	State Designation	Federal Designation
Ozone (1-hour)	Non-attainment	No Standard
Ozone (8-hour)	Non-attainment	Extreme Non-attainment[1]
Particulate Matter (PM_{10})	Non-attainment	Serious Non-attainment
Particulate Matter ($PM_{2.5}$)	Non-attainment	Non-attainment
Carbon Monoxide	Attainment	Attainment/Maintenance
Nitrogen Dioxide	Non-attainment[2]	Attainment/Maintenance
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment/Non-attainment[3]	Attainment/Non-attainment[4]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

Notes:

[1] The USEPA approved redesignation from Severe 17 to Extreme Nonattainment on May 5, 2010, effective June 4, 2010.

[2] The SCAB was reclassified from attainment to non-attainment for nitrogen dioxide on March 25, 2010.

[3] Los Angeles County was reclassified from attainment to non-attainment for lead on March 25, 2010; the remainder of the SCAB is in attainment of the State standard.

[4] The Los Angeles County portion of the SCAB is classified as non-attainment for lead; the remainder of the SCAB meets State attainment standards.

Local Air Quality

Relative to the Project site, the nearest long-term air quality monitoring site for Particulate Matter ≤ 10 Microns (PM_{10}) and Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$) is the SCAQMD Perris monitoring station (SRA 24), located approximately 4.8 miles north of the Project site. Data for Carbon Monoxide (CO), Nitrogen Dioxide (NO_2), and Ultra-Fine Particulates ($PM_{2.5}$) was obtained from the Metropolitan Riverside County 2

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monitoring station (SRA 23), located approximately 10.6 miles northwest of the Project site. Data from the Metropolitan Riverside County 2 monitoring station was utilized in lieu of the Perris monitoring station only where data was not available from the nearest monitoring site.

The most recent three years of monitoring data available is presented at Table 4.2-3, and identifies the number of days ambient air quality standards were exceeded for the study area, which was considered to be representative of the local air quality at the Project site (data for SO_2 has been omitted as attainment is regularly met in the South Coast Air Basin and few monitoring stations measure SO_2 concentrations).

Table 4.2-3
Project Area Air Quality Monitoring Summary 2012–2014

POLLUTANT	STANDARD	YEAR		
		2012	2013	2014
Ozone (O_3)				
Maximum 1-Hour Concentration (ppm)		0.136	0.143	0.126
Maximum 8-Hour Concentration (ppm)		0.111	0.111	0.101
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	42	--	34
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	66	--	60
Number of Days Exceeding Federal 1-Hour Standard	> 0.12 ppm	4	3	1
Number of Days Exceeding Federal 8-Hour Standard	> 0.075 ppm	45	27	42
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	0	0	0
Carbon Monoxide (CO)				
Maximum 1-Hour Concentration (ppm)		--	--	2.0
Maximum 8-Hour Concentration (ppm)		1.5	1.6	1.4
Number of Days Exceeding State 1-Hour Standard	> 20 ppm	--	0	0
Number of Days Exceeding Federal / State 8-Hour Standard	> 9.0 ppm	0	0	0
Number of Days Exceeding Federal 1-Hour Standard	> 35 ppm	0	0	0
Nitrogen Dioxide (NO_2)				
Maximum 1-Hour Concentration (ppm)		0.060	0.058	0.056
Annual Arithmetic Mean Concentration (ppm)		0.017	0.016	0.016
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0

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Table 4.2-3
Project Area Air Quality Monitoring Summary 2012–2014

POLLUTANT	STANDARD	YEAR		
		2012	2013	2014
Particulate Matter ≤ 10 Microns (PM_{10})				
Maximum 24-Hour Concentration (µg/m3)		62	70	87
Number of Samples		60	57	60
Number of Samples Exceeding State Standard	> 50 µg/m³	1	10	8
Number of Samples Exceeding Federal Standard	> 150 µg/m³	0	0	0
Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$)				
Maximum 24-Hour Concentration (µg/m³)		30.2	53.7	30.9
Annual Arithmetic Mean (µg/m³)		11.4	11.2	10.9
Number of Samples Exceeding Federal 24-Hour Standard	> 35 µg/m³	0	0	0

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

4.2.3.3 Air Pollutant Emissions Generated by Existing Activities

The Project site is currently vacant and undeveloped and is not a source substantive source of air pollutant emissions.

4.2.4 REGULATORY BACKGROUND AND GENERAL PLAN GOALS

4.2.4.1 Federal Regulations

The U.S. Environmental Protection Agency (EPA) is responsible for setting and enforcing the NAAQS for O_3, CO, NO_x, SO_2, PM_{10}, and lead. The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the California Air Resource Board (CARB).

The Federal Clean Air Act (CAA) was first enacted in 1955, and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA

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establishes the National Ambient Air Quality Standards (NAAQS), and specifies Standards compliance dates. The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these Standards. SIPs must include pollution control measures demonstrating how Standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O_3, NO_2, SO_2, PM_{10}, CO, $PM_{2.5}$, and lead. The NAAQS were amended in July 1997 to include an additional standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. Table 4.2-1 (previously presented) provides the NAAQS within the Basin.

Mobile-source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NO_x. NO_x is a collective term that includes all forms of nitrogen oxides (NO, NO_2, NO_3) which are emitted as byproducts of the combustion process.

4.2.4.2 California Regulations

The CARB, which became part of the California EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the CAAQS for

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all pollutants for which the federal government has NAAQS and, in addition, establishes standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However, at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS.

Local air quality management districts, such as the SCAQMD, regulate air emissions from commercial and light industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g., motor vehicle use generated by residential and commercial development);
- A District-permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a five percent or more annual reduction in emissions or 15 percent or more in a period of three years for ROGs, NO_x, CO and PM_{10}. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than five percent per year under certain circumstances.

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4.2.4.3 Regional Air Quality Management Planning

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided subsequently within the analysis discussion in this Section.

4.2.5 REGIONAL AIR QUALITY TRENDS

SCAQMD is the agency responsible for regulating stationary air pollution sources within the Basin.[2] To these ends, SCAQMD develops comprehensive plans and regulatory programs for the region in order to attain federal air quality standards by dates specified under federal law. SCAQMD responsibilities also include attainment of state air quality standards at the earliest achievable date, employing reasonably available control measures.

SCAQMD rule development through the 1970s and 1980s realized substantial improvement in Basin air quality. Subsequent SCAQMD pollution prevention and control programs developed during the 1990s relied on: (i) development and application of cleaner technologies; (ii) add-on emission controls; and (iii) uniform CEQA review throughout the Basin. Industrial-source air pollutant emissions within the Basin have been significantly reduced through this approach. Additionally, Basin-wide vehicular-source emissions have been reduced by technologies implemented at the state level by the California Air Resources Board (CARB).

[2] Separately, the California Air Resources Board (CARB) regulates mobile-source air pollutants within the Basin.

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4.2.5.1 Criteria Pollutants Reduced Basin-wide

Air Quality Management Plans (AQMPs) prepared and periodically updated by SCAQMD establish air quality attainment targets and related strategies intended to achieve federal and state air quality standards. The Basin's historical improvement in air quality since the 1970's is the direct result of the comprehensive, multi-year air pollution reduction strategies outlined in the AQMP(s), and by utilizing uniform CEQA review throughout the Basin. Under the AQMPs, Ozone, NO_x, VOC, and CO emissions within the Basin have demonstrably decreased since 1975, with continuing substantive decreases anticipated through 2020.

Diminished air pollutant emissions with the Basin are primarily the result of replacement of older vehicles with newer more fuel-efficient and/or alternative fuel vehicles; and increasingly effective motor vehicle emissions controls, including evaporative emissions controls. Because of the mandated controls on motor vehicles and the replacement of older polluting vehicles, although vehicle miles traveled in the Basin continue to increase, NO_x and VOC levels continue to decrease. NO_x emissions resulting from electric power generation have also decreased, largely due to use of cleaner fuels and renewable energy. Relative decreases in ambient levels of Ozone, particulate matter (PM_{10} and $PM_{2.5}$), and CO are also evident Basin-wide. Ozone air quality in the SCAB has improved substantially over historic conditions. For example:

- During the 1960s, maximum 1-hour concentrations exceeded 0.60 ppm. Currently, maximum measured concentrations approximate 0.20 ppm or less;

- The 2007 peak 8-hour indicator value for Ozone was 42 percent lower than the 1988 value;

- The 2008 three-year average of the maximum 8-hour concentration for Ozone was over 41 percent lower than in 1990; and

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- The number of days that the Basin Ozone levels exceeded state and federal standards has also declined dramatically.

Trends for particulate matter emissions (PM_{10} and $PM_{2.5}$) also show an overall improvement when compared to historic conditions. Direct emissions of PM_{10} have remained somewhat constant in the Basin and direct emissions of $PM_{2.5}$ have decreased slightly since 1975. Area-wide sources (fugitive dust from roads, dust from construction and demolition, and other sources) contribute the greatest amount of direct particulate matter emissions. Despite the overall decrease, ambient concentrations still exceed the State annual and 24-hour PM_{10} standards; and the Basin is also currently designated as nonattainment under the State and national $PM_{2.5}$ standards. Measures adopted under the Basin $PM_{2.5}$ State Implementation Plan (SIP), as well as programs to reduce ozone and diesel particulate matter (DPM) will help in reducing regional ambient $PM_{2.5}$ levels.

CO concentrations in the Basin have also decreased markedly when compared to past conditions — evidenced by more than 72 percent in the peak 8-hour CO indicator since 1988. The number of CO exceedance days has also declined. During 1988, there were 73 days above the State standard and 65 days above the national standard. However, since 2003, there were no exceedance days for either standard. The Basin in its entirety is now designated as attainment for both the state and national CO standards. Ongoing reductions from motor vehicle control programs should continue the downward trend in ambient CO concentrations.

4.2.5.2 Diesel Emissions and Diesel Particulate Matter (DPM) Reduced Basin-wide

CARB and the Ports of Los Angeles and Long Beach have adopted regulations acting to reduce levels of DPM. In summary, these regulations require that older, more polluting trucks be replaced with newer, cleaner trucks. These regulatory requirements have yielded reductions in DPM emissions generated per mile traveled and associated reductions in ambient DPM levels within the Basin. Further DPM emissions reductions are anticipated as additional inefficient and polluting vehicles are retired from service.

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DPM emissions are a known source of increased cancer risks. Paralleling the decline in Basin-wide DPM levels noted above, information available from CARB indicates that overall cancer risk throughout the basin has had a declining trend since 1990. Additional reductions in diesel risk exposure are anticipated to result from CARB's Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. The key elements of the Plan include: retrofit emission control devices for older diesel engines; adoption of stringent standards for new diesel engines; and reduced sulfur content of diesel fuel to protect advanced technology emission control devices on newer diesel engines.

4.2.6 STANDARDS OF SIGNIFICANCE

As identified within the *CEQA Guidelines*, air quality impacts would be considered potentially significant if the Project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard, including releasing emissions which exceed quantitative thresholds for ozone precursors;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

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4.2.6.1 SCAQMD Thresholds

The SCAQMD's CEQA Air Quality Significance Thresholds (Revision: March 2015)[3] indicate that projects in the SCAB with emissions exceeding applicable SCAQMD thresholds would be considered as having individually and cumulatively significant air quality impacts. Conversely, air quality impacts for projects not exceeding applicable emissions thresholds would be considered individually and cumulatively less-than-significant. While the final determination of significance thresholds is within the purview of the lead agency pursuant to the State *CEQA Guidelines*, the SCAQMD recommends that its regional and local air quality thresholds for regulated pollutants (summarized below) be employed by lead agencies in determining whether criteria air pollutant emissions impacts generated by construction or operations of a given project are significant.

Regional Thresholds

SCAQMD regional significance thresholds for maximum daily emissions of regulated pollutants are listed at Table 4.2-4. Project emissions exceeding these thresholds would be considered potentially significant.

Table 4.2-4
Maximum Daily Emissions-Regional Thresholds

Pollutant	Construction-source	Operational-source
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

[3] "SCAQMD Air Quality Significance Thresholds." *South Coast Air Quality Management District*. South Coast Air Quality Management District, n.d. Web. 13 Oct. 2015.

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Carbon Monoxide Concentrations (CO "hot spots") Thresholds

CO "hot spots" are areas of carbon monoxide concentrations exceeding national or state air quality standards. CO hot spots typically occur as a result of excessive vehicular idling, often associated with traffic backups at underperforming intersections or congested roadway links. SCAQMD also recommends an evaluation of potential localized CO "hot spot" impacts for projects which may adversely affect, or substantially contribute to, level of service impacts along area roadway segments or at area intersections.

Pursuant to SCAQMD thresholds, a project's localized CO emissions impacts would be potentially significant if they exceed the following California standards for localized CO concentrations:

- 1-hour CO standard of 20.0 parts per million (ppm);
- 8-hour CO standard of 9.0 ppm.

Localized Significance Thresholds (LSTs)

LSTs represent the maximum localized emissions concentrations that would not cause or contribute to an exceedance of the most stringent applicable national or state ambient air quality standard (NAAQS or CAAQS) at the nearest residence or sensitive receptor. LSTs apply to carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter less than 10 microns (PM_{10}), and particulate matter less than 2.5 microns ($PM_{2.5}$). The SCAQMD states that the Lead Agency may, at the Agency's discretion, employ LSTs as another indicator of significance in air quality impact analyses.

Health Risk Assessment (HRA) Thresholds

Carcinogenic Risks

Pursuant to SCAQMD thresholds, impacts of Toxic Air Contaminants (TACs) are considered potentially significant if a Health Risk Assessment (HRA) shows an increased cancer risk of greater than 10 incidents per million population.

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Noncarcinogenic Risks

Noncarcinogenic risks are numerically expressed as a Hazard Index (HI), with a threshold HI of 1.0. Pursuant to SCAQMD thresholds, noncarcinogenic Hazard Indices calculated to be greater than 1.0 are considered potentially significant.

4.2.7 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.2.7.1 Introduction

The following discussions focus on areas where it has been determined that the Project may result in potentially significant air quality impacts, pursuant to comments received through the NOP process, and based on the analysis presented within this Section and included within the EIR Initial Study (EIR Appendix A). Please refer also to Initial Study Checklist Item III., *Air Quality*.

Of the CEQA threshold considerations identified above at Section 4.2.6, and as substantiated in the Initial Study, the Project's potential impacts under the following topic are determined to have a less-than-significant impact and are not further substantively discussed here:

- Create objectionable odors affecting a substantial number of people.

All other CEQA topics concerning the Project's potential impacts to air quality are discussed below. Please refer also to Draft EIR Appendix A, Initial Study Checklist Item III., *Air Quality*.

4.2.7.2 Impact Statements

Following is an analysis of potential air quality impacts that are expected to occur as a result of the Project. Potential emissions are considered for Project construction and operation. For each topical discussion, potential impacts are evaluated under applicable criteria established above at Section 4.2.6, *Standards of Significance.*

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Potential Impact: ***Conflict with or obstruct implementation of the applicable air quality plan.***

Impact Analysis: The Project site is located within the SCAB, which is characterized by relatively poor air quality in the context of NAAQS and CAAQS. The SCAQMD has jurisdiction over an approximately 12,000-square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what used to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the SCAG, county transportation commissions, and local governments, as well as state and federal agencies to control and reduce Basin air pollutant emissions.

Currently, NAAQS and CAAQS are exceeded in most parts of the Basin. In response, the SCAQMD has developed and adopted a series of Air Quality Management Plans (AQMPs) outlining strategies to achieve state and national ambient air quality standards. AQMPs are periodically updated to reflect technological advances, recognize new or pending regulations, more effectively reduce emissions, accommodate growth, and minimize any negative fiscal impacts of air pollution control on the economy.

AQMP Consistency

The SCAQMD AQMP, last updated in 2012, incorporates the latest scientific and technical information and planning assumptions; updated emission inventory methodologies for various emissions source categories; and reflects information, plans, and programs presented in the SCAG 2012 Regional Transportation Plan/Sustainable Communities Strategy (2012 RTP). Air quality conditions and trends presented in the 2012 AQMP assume that regional development will occur in accordance with population growth projections identified by SCAG in its 2012 RTP.

The SCAG 2012 RTP in turn derives its assumptions, in part, from general plans of cities located within the SCAG region. Accordingly, if a project is consistent with the development and growth projections reflected in an adopted general plan, that project

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is considered consistent with the growth assumptions in the 2012 AQMP. The 2012 AQMP further assumes that development projects within the region will implement appropriate strategies to reduce air pollutant emissions, thereby promoting timely implementation of the AQMP.

Criteria for determining consistency with the AQMP are identified at Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD *CEQA Air Quality Handbook* (1993), as listed below. Project consistency with, and support of these criteria is presented subsequently.

- **Criterion No. 1**: The project under consideration will not result in an increase in the frequency or severity of existing NAAQS/CAAQS air quality violations or cause or contribute to new NAAQS/CAAQS violations; or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

- **Criterion No. 2**: The project under consideration will not exceed the assumptions in the AQMP in 2011 or increments based on the years of Project build-out phase.

Criterion No. 1

The CAAQS and NAAQS comprise, and are reflected in, the SCAQMD Localized Significance Thresholds (LSTs) described within this Section.[4] As discussed subsequently in this Section, the Project LST analysis substantiates that Project

[4] The CAAQS and NAAQS are not equivalent to SCAQMD regional emissions thresholds. The first AQMP consistency criterion specifically inquires whether or not a project would "result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations . . ." The only way to effectively answer this question is to determine if the NAAQS or CAAQS are exceeded – both of which are concentration-based thresholds, as opposed to the regional burden emissions "pounds per day" thresholds established by the SCAQMD. Regarding the latter, the SCAQMD employs regional thresholds to allow for and establish uniform mitigation requirements for all projects. However, evaluating whether a project would generate emissions exceeding SCAQMD regional thresholds does not answer the first criterion question since these regional thresholds are not tied back to the CAAQS/NAAQS.

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construction-source emissions and operational-source emissions would not exceed applicable LSTs, and therefore would not violate NAAQS or CAAQS. Further, the Project would implement applicable best available control measures (BACMs), and would comply with applicable SCAQMD rules, acting to further reduce its already less-than-significant air pollutant emissions. Moreover, the Project at its current location, proximate to local and regional transportation facilities, acts to reduce vehicle miles traveled (VMT) and associated mobile-source (vehicular) emissions. Additionally, Project incorporation of contemporary energy-efficiency/energy conservation technologies and operational programs; and compliance with SCAQMD emissions reductions and control requirements act to reduce stationary-source air emissions. These Project attributes and features are consistent with and support AQMP air pollution reduction strategies and promote timely attainment of AQMP air quality standards. On the basis of the preceding discussion, the Project is determined to be consistent with the first criterion.

Criterion No. 2

Criterion No. 2 addresses consistency (or inconsistency) of a given project with approved local and regional land use plans, and associated potential AQMP implications. That is, AQMP emissions models and emissions control strategies are based in part on land use data provided by local general plan documentation; and complementary regional plans, which reflect and incorporate local general plan information. Projects that propose general plan amendments may increase the intensity of use and/or result in higher traffic volumes, thereby resulting in increased stationary area source emissions and/or vehicle source emissions when compared to the AQMP assumptions. However, if a given project is consistent with and does not otherwise exceed the growth projections in the applicable local general plan, then that project would be considered consistent with the growth assumptions in the AQMP and would not affect the AQMP's regional emissions inventory for the Basin.

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The Project does not propose or require any change in land use designations, nor any increase in development intensity beyond that currently anticipated for the subject site. Because the land uses and development intensities proposed by the Project are consistent with the currently adopted City General Plan and applicable zoning standards, the Project is in compliance with Consistency Criterion No. 2.

AQMP Consistency Conclusion

The Project would not result in or cause NAAQS or CAAQS violations. The Project does not propose or require any change in land use designations, nor any increase in development intensity beyond that currently anticipated for the subject site. The Project would not generate operational-source criteria pollutant emissions not already reflected in the current AQMP regional emissions inventory. Based on the preceding, the Project is considered to be consistent with the AQMP. The potential for the Project to conflict with or obstruct implementation of the applicable air quality plan is therefore considered less-than-significant.

Level of Significance: Less-Than-Significant.

Potential Impact: ***Violate any air quality standard or contribute substantially to an existing or projected air quality violation.***

Impact Analysis: The latest SCAQMD/California Air Pollution Control Officers Association (CAPCOA)-approved version of the California Emissions Estimator Model (CalEEMod, v2013.2.2) was utilized to estimate Project-related air pollutant emissions levels. Project emissions levels were then compared to applicable SCAQMD thresholds in order to determine if air quality standards would be exceeded; or if Project emissions would contribute substantially to existing or projected air quality violations. Unless otherwise noted, CalEEMod default values and assumptions were applied throughout.

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REGIONAL IMPACTS

Construction-Source Air Pollutant Emissions

Construction activities associated with the Project will result in emissions of CO, VOCs, NO_x, SO_x, PM_{10}, and $PM_{2.5}$. These emissions would be generated by the following construction activities:

- Site Preparation;
- Grading;
- Building Construction;
- Architectural Coatings; and
- Paving.

Within the scope of the Project activities listed above, vehicular emissions generated by construction worker commutes and construction materials deliveries are also reflected.

The approximate Project construction schedule is summarized at Table 4.2-5. Air pollutant emissions based on the construction schedule presented here represents a "worst-case" analysis scenario. That is, should construction occur any time after the dates presented here, incremental and aggregate construction-source emissions would likely decrease since emission factors for construction equipment would progressively decrease in the future. This is due to the natural turnover of the older vehicle fleet and replacement with more fuel efficient equipment with enhanced emissions controls; and implementation of more stringent regulations which collectively act to reduce construction-source (and operational-source) emissions.

Table 4.2-5
Project Construction Schedule

Activity	Start Date	End Date	Number of Days Total
Site Preparation	01/28/2017	02/10/2017	10
Grading	02/11/2017	03/24/2017	30

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Table 4.2-5
Project Construction Schedule

Activity	Start Date	End Date	Number of Days Total
Building Construction	03/25/2017	05/18/2018	300
Paving	05/19/2018	06/15/2018	20
Architectural Coating	06/16/2018	08/10/2018	40

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

Construction equipment use by activity and duration is summarized at Table 4.2-6 and represents a reasonable approximation of the types and quantity of construction equipment employed on any given day.

Table 4.2-6
Summary of Construction Equipment Use by Activity

Activity	Equipment Type	Number of Equipment	Hours per day
Site Preparation	Water Trucks	2	8
	Rubber Tired Dozers	4	8
	Crawler Tractor	2	8
	Excavators	4	8
Grading	Water Trucks	2	8
	Scrapers	4	8
	Graders	4	8
	Rubber Tired Dozers	2	8
	Crawler Tractors	2	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8

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Table 4.2-6
Summary of Construction Equipment Use by Activity

Activity	Equipment Type	Number of Equipment	Hours per day
Architectural Coating	Air Compressors	4	8
	Aerial Lifts	4	8

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

Modeled maximum daily construction-source air quality impacts reflecting the above information is summarized at Table 4.2-7.

Table 4.2-7
Maximum Daily Construction-Source Air Pollutant Emissions Summary
Without Mitigation (pounds per day)

Year	Pollutant					
	VOC	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
2017	14.48	166.37	95.93	0.15	30.05	17.65
2018	76.44	33.54	41.61	0.09	5.15	2.55
Maximum Daily Emissions	**76.44**	**166.37**	**95.93**	**0.15**	**30.05**	**17.65**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

Level of Significance: Potentially Significant. As shown at Table 4.2-7, maximum daily Project construction-source air pollutant emissions would exceed applicable SCAQMD regional thresholds for VOCs and NOx. These are potentially significant impacts. It is noted however, that the impacts stated do not take credit for pollutant emissions reductions achieved through implementation of Best Available Control Measures (BACMs), or reductions achieved through standard regulatory requirements (e.g., SCAQMD Rule 403). To ensure their timely implementation and monitored compliance, application of standard BACMs and mandated SCAQMD rule compliance are restated as construction-source air quality impact mitigation measures presented below.

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Mitigation Measures:

4.2.1 *The following requirements shall be incorporated into Project plans and specifications in order to ensure implementation of SCAQMD Rule 403 and limit fugitive dust emissions:*

- *All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour;*
- *The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day; and*
- *The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are limited to 15 miles per hour or less.*

4.2.2 *Grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling. This requirement is based on the California Air Resources Board regulation in Title 13, Chapter 10, Section 2485, Division 3 of the California Code of Regulations, which imposes a requirement that heavy duty trucks not idle for greater than five (5) minutes at any location.*

4.2.3 *All off-road diesel-powered construction equipment ≥ 150 hp shall meet California Air Resources Board (CARB) Tier 4 emission standards.*

4.2.4 *Only "Zero-Volatile Organic Compounds" paints (no more than 150 grams/liter of VOC) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used.*

Level of Significance after Mitigation: Less-Than-Significant. As indicated at Table 4.2-8, implementation of Mitigation Measures 4.2.1 through 4.2.4 would reduce Project construction-source air pollutant emissions in aggregate, and in so doing would also achieve SCAQMD regional thresholds for VOC and NOx.

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Table 4.2-8
Maximum Daily Construction-Source Air Pollutant Emissions Summary
With Mitigation (pounds per day)

Year	Pollutant					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
2017	5.08	66.91	81.21	0.15	11.84	6.99
2018	16.83	33.54	41.61	0.09	5.15	2.55
Maximum Daily Emissions	**16.83**	**66.91**	**81.21**	**0.15**	**11.84**	**6.99**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

Operational-Source Air Pollutant Emissions

Project operational activities would generate emissions of VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Operational air pollutant emissions would be generated by the following primary sources:

- Mobile Sources
  - Tailpipe emissions; and
  - Fugitive dust related to vehicular travel.

- Stationary/Area Sources
  - Combustion emissions associated with natural gas and electricity use;
  - Landscape maintenance equipment;
  - On-Site Equipment Operations;
  - Emissions from consumer products; and
  - Architectural coatings.

Each of these operational emissions sources are described in the following paragraphs and the estimated emissions from each source are summarized subsequently. Within the following discussions, full Project buildout and occupancy under Opening Year Conditions are assumed.

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Mobile Sources (vehicles)

Vehicle Exhaust/Tailpipe Emissions

Project-related operational air quality impacts derive predominantly from mobile sources. In this regard, approximately 98 percent (by weight) of all Project operational-source emissions would be generated by mobile sources (vehicles). Vehicle exhaust impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. Vehicle trip characteristics available from the Project Traffic Impact Analysis (Project TIA, EIR Appendix B) were employed in the Project AQIA. For the Project mobile-source emissions, air quality impacts have been evaluated employing assumptions and protocols reflected in the South Coast Air Quality Management District *Draft Warehouse Truck Trip Study* (SCAQMD) December 2014 (Draft Warehouse Truck Trip Study); and reflecting likely maximum trip lengths as follows:

- For passenger car trips, the CalEEMod default for a one-way trip length of 16.6 miles was assumed.

- For heavy duty trucks, average trip length were employed reflecting distances from the Project site to the far edges of the South Coast Air Basin (SCAB.)

    - Project site to the Port of Los Angeles/Long Beach: 80 miles;
    - Project site to East on State Route 60: 30 miles;
    - Project site to San Diego County line: 60 miles;
    - Project site to Inland Empire: 50 miles;
    - Project site to Perris destinations: 10 miles;
    - Project site to Moreno Valley destinations: 10 miles.

Assuming that 50% of all delivery trips will travel to and from the Project and the Port of Los Angeles/Long Beach, 10% go East on the State Route 60, 20% go to San Diego,

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10% go to the Inland Empire, 5% go to Perris destinations and the remainder as Moreno Valley destinations. The average truck trip length is calculated as 61 miles.

Mobile-source vehicle tail pipe emissions cannot be materially controlled or mitigated by the Lead Agency or the Project Applicant. Rather, these emissions sources are regulated by CARB and USEPA. As summarized herein at Section 4.2.5, Regional Air Quality Trends, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve. Future CARB and USEPA actions could be expected to have a positive effect on Project-related vehicular-source emissions, resulting in incremental reductions in vehicular-source emissions when compared to either the Project AQIA emissions estimates.

Fugitive Dust Related to Vehicular Travel

Project traffic would be a source of fugitive emissions due to the generation of road dust including particulate matter resulting from tire wear.

Stationary/Area Sources

Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every development project. Criteria pollutants are emitted through the generation of electricity and the consumption of natural gas. Because electrical generating facilities for the Project area are located either outside the region, are separately evaluated under their own environmental analyses, and/or are offset through the use of pollution credit, criteria pollutant emissions from offsite generation of electricity have been excluded from the analysis presented here.

Landscape Maintenance Emissions

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include

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lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project.

On-Site Equipment Operations

Industrial warehouse uses such as those that would be implemented under the Project typically require use of cargo handling equipment for on-site movement of containers and chassis. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks typically have a horsepower (hp) range of approximately 175 hp to 200 hp. SCAQMD information indicates that high-cube warehouse projects typically employ 3.6 yard trucks per million square feet of building space. For the Project, on-site modeled operational equipment assumes two (2) yard tractors operating at 4 hours/day, 365 days/year. Other assumed on-site operational equipment supporting the Project industrial land uses would include a total of two 89-hp yard forklifts, operating 4 hours/day, 365 days/year. All on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) would be powered by non-diesel fueled engines and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

Consumer Products

Consumer products include, but are not limited to, detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which, when released in the atmosphere, can react to form ozone and other photochemically reactive pollutants.

Architectural Coatings

Over time, maintenance of Project facilities would require exterior application of architectural coatings. Such facility maintenance would generate air pollutant emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings.

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Operational Emissions Summary

Maximum daily Project operational-source air pollutant emissions are summarized at Table 4.2-9. Applicable SCAQMD regional significance thresholds are also indicated.

Table 4.2-9
Maximum Daily Operational-Source Air Pollutant Emissions Summary
Without Mitigation (pounds per day)

Land Use/Emissions Source	Pollutants					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Summer Scenario						
Area-Source	14.20	7.90E-04	0.09	1.00E-05	3.00E-04	3.00E-04
Energy-Source	0.10	0.89	0.76	5.38E-03	0.07	0.07
Mobile-Source (Trucks)	10.45	174.75	94.33	0.62	22.01	8.15
Mobile-Source (Passenger Cars)	1.22	1.64	22.48	0.08	7.27	1.95
On-Site Equipment	0.34	4.50	1.61	0.01	0.15	0.13
Total Maximum Daily Emissions	**26.31**	**177.28**	**117.66**	**0.71**	**29.35**	**10.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	No	**YES**	No	No	No	No
Winter Scenario						
Area Source	14.20	7.90E-04	0.09	1.00E-05	3.00E-04	3.00E-04
Energy Source	0.10	0.89	0.76	5.38E-03	0.07	0.07
Mobile (Trucks)	10.64	181.76	100.66	0.61	22.01	8.15
Mobile (Passenger Cars)	1.20	1.79	20.34	0.08	7.27	1.95
On-Site Equipment	0.34	4.50	1.61	0.01	0.15	0.13
Total Maximum Daily Emissions	**26.48**	**184.44**	**121.85**	**0.70**	**29.35**	**10.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	No	**YES**	No	No	No	No

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

Level of Significance: Potentially Significant. Project operational-source NOx emissions would exceed applicable SCAQMD regional thresholds. As shown at Table 4.2-14, Project operational-source NOx emissions would exceed applicable SCAQMD regional thresholds. Mitigation measures that would act to reduce Project operational-source emissions are presented below.

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Project Design Features and Operational Programs

Operational-source emissions are reduced in part through the Project's conservation/sustainability design features and operational programs described at EIR Section 3.4.10, *Energy Efficiency/Sustainability*, and restated below:

Energy-saving and sustainable design features and operational programs would be incorporated into all facilities developed pursuant to the Project. Notably, the Project in total would provide sustainable design features necessary to achieve a "Certified" rating under the United States Green Building Council's Leadership in Energy & Environmental Design (LEED) programs. The Project also incorporates and expresses the following design features and attributes promoting energy efficiency and sustainability.

- The Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provider that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City.

- All on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines.

- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:

    - Sidewalks along the Project site's Indian Street frontage would be constructed as part of the Project, and would connect to existing and planned sidewalks to the north and south of the Project site. Facilitating pedestrian access

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encourages people to walk instead of drive. The Project would not impose barriers to pedestrian access and interconnectivity.

- Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery vendor truck trips.

- To reduce water demands and associated energy use, development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy).[5] Development proposals within the Project site would also be required to implement the following:

  - Landscaping palette emphasizing drought tolerant plants consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

  - Use of water-efficient irrigation techniques consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

  - U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and other plumbing fixtures.

[5] Reduction of 20% indoor water usage is consistent with the current CalGreen Code performance standards for residential and non-residential land uses. Per CalGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

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Additionally, the Project in total would surpass, by a minimum of 5%, incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards).

Mitigation Measure: Requirements listed below at Mitigation Measure 4.2.5 would provide for generalized reductions in Project area-source air pollutant emissions. Notwithstanding, these reductions cannot be definitively quantified; and in any case, such reductions as may be realized would not materially affect the analyses or conclusions presented herein. Accordingly, for the purposes of this analysis, unmitigated and mitigated area-source air pollutant emissions generated by the Project are considered substantively equal.

4.2.5 *The following requirements shall be incorporated into Project plans and specifications:*

- *Any gasoline-powered cargo-handling equipment shall be equipped with catalytic converters.*
- *Install signs stating that the idling of trucks shall not exceed three minutes.*
- *Provide preferential parking locations for EVs, CNG vehicles, and carpool/vanpool vehicles.*

Level of Significance After Mitigation: ***Significant (NOx regional threshold exceedances)***. Mitigated Project operational-source emissions are summarized at Table 4.2-10. Any reductions as may be realized through the above mitigation measures would not materially affect the analyses or conclusions presented herein.

Moreover, and as noted previously in this Section, approximately 98 percent of all operational-source emissions (by weight) would be generated by Project mobile sources (traffic). Neither the Project Applicant nor the Lead Agency can substantively or materially affect reductions in Project mobile-source emissions.

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Accordingly, and as indicated at Table 4.2-10, even after implementation of the recommended mitigation measure, Project operational-source NOx emissions exceedances would persist. ***Individually and cumulatively, these are significant and unavoidable air quality impacts.***

Table 4.2-10
Maximum Daily Operational-Source Air Pollutant Emissions Summary
With Mitigation (pounds per day)

Land Use/Emissions Source	Pollutants					
	VOC	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Summer Scenario						
Area-Source	12.36	7.90E-04	0.09	1.00E-05	3.00E-04	3.00E-04
Energy-Source	0.10	0.89	0.76	5.38E-03	0.07	0.07
Mobile-Source (Trucks)	10.33	174.75	94.33	0.62	22.01	8.15
Mobile-Source (Passenger Cars)	1.21	1.64	22.48	0.08	7.27	1.95
On-Site Equipment	0.34	4.50	1.61	0.01	0.15	0.13
Total Maximum Daily Emissions	**24.34**	**177.28**	**117.66**	**0.71**	**29.35**	**10.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	No	**YES**	No	No	No	No
Winter Scenario						
Area Source	12.36	7.90E-04	0.09	1.00E-05	3.00E-04	3.00E-04
Energy Source	0.10	0.89	0.76	5.38E-03	0.07	0.07
Mobile (Trucks)	10.52	181.76	100.66	0.61	22.01	8.15
Mobile (Passenger Cars)	1.2	1.79	20.34	0.08	7.27	1.95
On-Site Equipment	0.34	4.50	1.61	0.01	0.15	0.13
Total Maximum Daily Emissions	**24.52**	**184.44**	**121.85**	**0.70**	**29.35**	**10.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	No	**YES**	No	No	No	No

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

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LOCALIZED IMPACTS

Localized Significance Threshold (LST) Analysis

The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the national and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, the NAAQS/CAAQS establish LSTs.

LSTs were developed in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4. More specifically, to address potential Environmental Justice implications of localized air pollutant impacts, the SCAQMD adopted LSTs indicating whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. Though not required, lead agencies may employ LSTs as another indicator of significance in its air quality impact analyses.

LSTs apply to carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter less than 10 microns (PM_{10}), and particulate matter less than 2.5 microns ($PM_{2.5}$). LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable national or state ambient air quality standard at the nearest residence or sensitive receptor.

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of the project are above or below state standards. In the case of CO and NO_2, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. For the nonattainment pollutants PM_{10} and $PM_{2.5}$, background ambient concentrations already exceed state and/or national standards. LSTs for PM_{10} and $PM_{2.5}$ are therefore based on SCAQMD Rules 403/1303 (construction-source/operational-source emissions respectively) and are established as an allowable change in concentration; background PM_{10} and $PM_{2.5}$ concentrations are irrelevant.

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Emissions Considered/Methodology

LSTs apply to carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter less than 10 microns (PM_{10}), and particulate matter less than 2.5 microns ($PM_{2.5}$). The Project LST analysis incorporates, and is consistent with, protocols and procedures established by the SCAQMD *Final Localized Significance Threshold Methodology* (Methodology) (SCAQMD, June 2003). The SCAQMD Methodology clearly states that "off-site mobile emissions from the Project should NOT be included in the emissions compared to LSTs." Accordingly only "on-site" emissions are considered in the LST analysis.

Receptors

Localized air quality impacts were evaluated at proximate sensitive receptor land uses. Proximate sensitive receptors are described below. Location of the nearest sensitive receptor land use relative to the Project site is indicated at Figure 4.2-1.

R1: Located approximately 1,968 feet northeasterly of the Project site on Nandina Avenue, R1 represents an existing single-family residential home.

R2: Location R2 represents the existing residential home located roughly 3,380 feet southerly of the Project site on Markham Street.

R3: Location R3 represents the existing residential homes on Markham Street, southwesterly of the Project site at a distance of approximately 3,645 feet.

R4: Location R4 represents the existing residential homes situated approximately 3,171 feet southwest of the Project site on Nevada Avenue.

R5: At a distance of approximately 3,964 feet, location R5 represents a single-family residential home situated on Patterson Avenue west of the Project site.

Additionally, 1-hour and 8-hour CO and NO_2 concentrations were modeled at discrete receptors placed immediately adjacent to the fence-line. Modeled pollutant concentrations at these locations reflect potential "worker" exposures.

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Source: Urban Crossroads, Inc.

Figure 4.2-1
Sensitive Receptor Locations

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Construction-Source Emissions LST Analysis

The SCAQMD has issued guidance on applying CalEEMod to LST analyses. In this regard, CalEEMod calculates construction emissions (off-road exhaust and fugitive dust) based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment.

Since CalEEMod calculates construction-source emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, the information at Table 4.2-11 is used to determine the maximum daily disturbed-acreage for comparison to LSTs.

Table 4.2-11
Maximum Daily Project Construction Equipment Operations Summary

Activity	Equipment Type	Equipment Quantity	Acres Graded per 8-hour Day	Operating Hours per day	Acres Graded Per Day
Grading	Rubber Tired Dozers	2	0.5	8	1
	Crawler Tractors	2	0.5	8	1
	Graders	4	0.5	8	2
	Scrapers	4	1	8	4
Total acres graded per day					**8**

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

Based on the information presented at Table 4.2-11, localized construction-source emissions concentrations were estimated. Detailed modeling protocols are presented in the Project AQIA, included at EIR Appendix C. Table 4.2-12 summarizes maximum daily localized construction-source emissions impacts at the nearest sensitive receptors. As indicated, unmitigated maximum daily construction-source emissions would exceed applicable LST for PM_{10}, and would therefore be potentially significant.

Level of Significance: Potentially Significant (PM_{10} emissions concentrations).

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Table 4.2-12
Maximum Construction-Source Emissions Concentrations-Unmitigated

Emissions Concentrations	Pollutant				
	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours	
Peak Concentrations at Nearest Receptor	1.12	0.77	0.14	7.67.	10.3
Background Concentration*	2.0	1.6	0.06	---	---
Total Concentration	**3.12**	**2.43**	**0.20**	**7.67.19.50**	**10.3**
SCAQMD LST	20	9	0.18	10.4	10.4
Threshold Exceeded?	No	No	**YES**	**No**	No

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.
Notes: * Highest concentration from the last three years of available data. Background PM_{10} and $PM_{2.5}$ concentrations are not considered under SCAQMD LST modeling protocols. PM_{10} and $PM_{2.5}$ concentrations are expressed in $\mu g/m^3$. All others are expressed in ppm.

Mitigation Measures: Previous Mitigation Measures 4.2.1 through 4.2.3 would act to reduce Project construction-source emissions generally, and would also reduce construction-source NO_2 emissions concentrations to levels below applicable LTSs. As indicated at Table 4.2-13, with application of Mitigation Measures 4.2.1 through 4.2.3, Project construction-source LST impacts would be less-than-significant.

Table 4.2-13
Maximum Construction-Source Emissions Concentrations-Mitigated

Emissions Concentrations	Pollutant				
	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours	
Peak Concentrations at Nearest Receptor	0.91	0.71	0.09	3.16	3.95
Background Concentration*	2.0	1.6	0.06		
Total Concentration	**2.91**	**2.31**	**0.16**	**3.16**	**3.95**
SCAQMD LST	20	9	0.18	10.4	10.4
Threshold Exceeded?	No	No	No	No	No

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.
Notes: * Highest concentration from the last three years of available data. Background PM_{10} and $PM_{2.5}$ concentrations are not considered under SCAQMD LST modeling protocols. PM_{10} and $PM_{2.5}$ concentrations are expressed in $\mu g/m^3$. All others are expressed in ppm.

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Level of Significance After Mitigation: Less-Than-Significant.

Operational-Source Emissions LST Analysis

The Project Operational-Source Emissions LST Analysis evaluates emissions generated by all on-site stationary/area sources inclusive of on-site landscaping/maintenance activities, facility energy consumption, on-site equipment use (yard trucks, etc.), and all on-site passenger car and truck travel. Detailed operational-source localized emissions modeling information is presented in the Project AQIA. Project operational-source localized emissions impacts are summarized at Table 4.2-14. As indicated, Project maximum daily operational-source emissions concentrations would not exceed applicable LSTs, and would therefore be less-than-significant.

Table 4.2-14
Localized Operational-Source Emissions Impacts Summary (lbs/day)

	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours (Operations)	
Peak Day Localized Emissions	0.01	0.01	0.0005	0.385	0.371
Background Concentration*	2.0	1.6	0.06	---	---
Total Concentration	**2.01**	**1.61**	**0.06**	**0.385**	**0.371**
SCAQMD Localized Significance Threshold	20	9	0.18	2.50	2.50
Threshold Exceeded?	No	No	No	No	No

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

Level of Significance: Less-Than-Significant.

CO "Hot Spot" Analysis

As discussed below, the Project would not result in potentially adverse localized CO concentrations or "hot spots." Adverse localized CO concentrations ("hot spots") are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a

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maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentrations in the Project vicinity have declined over time, and have not violated applicable AAQS in the last three years of record.

A CO "hot spot" would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. When the SCAQMD CEQA Handbook was first prepared in 1993, the SCAB was designated nonattainment under the California AAQS and National AAQS for CO. As identified in the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan) and subsequently within the SCAQMD's 2003 AQMP, peak carbon monoxide concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of congestion at a particular intersection.

To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon traffic periods. This hot spot analysis did not predict any violation of CO standards (please refer to Table 4.2-15).

Table 4.2-15
SCAQMD 2003 Los Angeles CO Hot Spot Analysis
Peak CO Emissions Concentrations Summary

Intersection Location	Carbon Monoxide Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire-Veteran	4.6	3.5	4.2
Sunset-Highland	4	4.5	3.9
La Cienega-Century	3.7	3.1	5.8
Long Beach-Imperial	3	3.1	8.4
CO Standard (ppm)	20.0 ppm	9.0 ppm	9.0 ppm
Standard Exceeded	No	No	No

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

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It can, therefore, be reasonably concluded that projects (such as the Indian Street Commerce Center Project evaluated here) that are not subject to the extremes in vehicle volumes and vehicle congestion that was evidenced in the 2003 Los Angeles Hot Spot Analysis would similarly not create or result in CO hot spots. As indicated by comparing the traffic volumes at Tables 4.2-16 and 4.2-17, none of the Project Study Area intersections would exceed total AM/PM daily traffic volumes and traffic congestion reflected in the 2003 Los Angeles Hot Spot Analysis.

Table 4.2-16
SCAQMD 2003 Los Angeles CO Hot Spot Analysis
Study Area Intersection Maximum Peak Hour and Daily Traffic Volumes

Intersection	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
Wilshire-Veteran	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset-Highland	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega-Century	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach-Imperial	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

Table 4.2-17
Project
Study Area Intersection Maximum Peak Hour and Daily Traffic Volumes

Intersection	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
I-215 NB Ramps - Harley Knox Blvd.	511/348	0/0	2,298/1,586	1,414/2,552	4,223/4,486
Western Way - Harley Knox Blvd.	0/0	77/108	2,275/1,374	1,369/2,464	3,721/3,946
Patterson Ave. - Harley Knox Blvd.	141/96	27/103	2,130/1,333	1,246/2,313	3,544/3,845
Indian St. - Harley Knox Blvd.	357/400	573/1,569	2,048/1,317	691/919	3,669/4,205

Source: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

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It is further noted that peak 8-hr CO concentrations noted at previous Table 4.2-15 were the result of atypical meteorological and topographical conditions affecting the Los Angeles Hot Spot Analysis study area; and not the result of intersection traffic volumes and/or congestion. As evidence of this, for example, the 8.4 ppm CO concentration measured at the Long Beach Boulevard and Imperial Highway intersection (greatest 8-hr CO concentration recorded in the 2003 Los Angeles CO Hot Spot Analysis) only 0.7 ppm of the measured 8-hr CO concentration was attributable to mobile-source emissions at this intersection; the remaining 7.7 ppm accruing to ambient air CO concentrations at the time the Analysis was prepared. In contrast, the ambient 8-hr CO concentration within the Project Study Area is estimated at 1.4 ppm—1.6 ppm (please refer to previous Table 4.2-3). Therefore, even if the traffic volumes for the Project were double or even triple of the traffic volumes generated at the Long Beach Boulevard and Imperial Highway Intersection, the Project would not be capable of resulting in a CO "hot spot" at any of the Project Study Area intersections. Moreover, ambient CO concentrations within the Basin in total have improved substantially since completion of the 2003 Los Angeles CO Hot Spot Analysis, further indicating that Project CO emissions concentrations, when added to background CO concentrations would not result in or cause CO hot spots.

Additionally, similar considerations are employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant localized CO emissions impact. The Project would not produce maximum peak hour traffic volumes traffic required to generate a CO hot spot either in the context of the 2003 Los Angeles hot spot study, or based on representative BAAQMD CO threshold considerations. Therefore, CO hot spots are not an environmental impact of concern for the Project.

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Level of Significance: Less-Than-Significant.

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TOXIC AIR CONTAMINANTS HEALTH RISK ANALYSIS

Toxic Air Contaminants (TACs) of primary concern for the Project would be Diesel Particulate Matter (DPM) emissions generated by trucks accessing the Project site. Project DPM sources are discussed below. Potential health risks of Project-related DPM emissions are described and evaluated subsequently.

Diesel Particulate Matter (DPM) Emissions

The Project would generate truck traffic, a portion of which is assumed to be diesel-powered. DPM emissions are known carcinogens and could increase area health risks. Accordingly, an analysis of potential long-term diesel exposure health risks is provided. To this end, the Project Health Risk Assessment (included at EIR Appendix C) characterizes and quantifies potential diesel emissions generated by, and health risk exposure resulting from, Project operations.

Truck trip generation characteristics presented in the Project TIA (*Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA* [Urban Crossroads, Inc.]March 2016) were utilized in the Project HRA. It should be noted that the Project TIA presents truck trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of larger/longer truck vehicles at Study Area intersections. For purposes of the HRA, however, the actual number and types of vehicles accessing the Project site (not PCEs) establishes the basis of the emissions quantification and analysis. Accordingly, the actual number of vehicles, by vehicle classification (e.g., passenger cars [including light trucks], heavy trucks) were used in the analysis. Please refer also to HRA Section 2.2, *Emissions Estimation*.

The Project is required to comply with CARB's on-site truck idling limit of 5 minutes. SCAQMD staff recommends that HRA's assume a minimum of 15 minutes of on-site truck idling, which would take into account potential protracted on-site idling which could occur at loading/unloading areas, or other areas or instances where on-site truck

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traffic movements may be impeded or delayed. Consistent with SCAQMD recommendations, the Project HRA analysis assumed on-site truck idling for a period of 15 minutes.

Carcinogenic and Chronic Illness Impacts

The SCAQMD *CEQA Air Quality Handbook* (1993) states that emissions of Toxic Air Contaminants (TACs) are considered significant if a Health Risk Assessment shows an increased cancer risk of greater than 10 incidents per million population. Consistent with the stated SCAQMD *Handbook* cancer risk threshold, for the purposes of this analysis, an increase in cancer risk of 10 incidents per million population is considered significant. Also germane to the Project HRA, specific guidance in determining health risks from diesel emissions is provided in *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (SCAQMD) 2003.

Health risks associated with exposure to carcinogenic compounds are defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. The cancer risk probability is determined by multiplying the chemical's annual concentration by its unit risk factor (URF). The URF is a measure of carcinogenic potential of a chemical when a dose is received through the inhalation pathway, and represents an upper-bound estimate of the probability of contracting cancer as a result of continuous exposure to an ambient concentration of one microgram per cubic meter ($\mu g/m^3$) over a 70-year lifetime. The URFs utilized in this analysis were obtained from the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA). Please refer also to the Project HRA presented at EIR Appendix C for greater detail regarding calculated DPM exposures and resulting health DPM-source cancer risks. Consistent with OEHHA guidance and SCAQMD HRA protocols, Project-related DPM-source cancer risks were evaluated for three exposure scenarios: "Residential," "Worker," and "School Site/School Child." OEHHA-recommended exposure parameters for each scenario are summarized at Table 4.2-18.

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Table 4.2-18
OEHHA Recommended Exposure Scenario Parameters

Exposure Parameter	Units	Residential	Worker	School Site/Child
Frequency	days/year	350	245	180
Duration	years	70	40	9
Inhalation Rate	L/kg-day	302	149	581
Exposure Duration	Years	70	40	9
Exposure Time	hours/day	24	12	10

Source: *Indian Street Commerce Center Mobile Source Diesel Health Risk Assessment, City of Moreno Valley*(Urban Crossroads, Inc.) July 7, 2016.

Carcinogenic Risk Exposure: Quantification Results

The Project HRA results for residential (maximally exposed individual receptor, MEIR), worker (maximally exposed individual worker, MEIW), and school site (maximally exposed individual school child, MEISC), carcinogenic risk exposures are summarized below. Locations of the MEIR, MEIW, and MEISC relative to the Project site are presented at Figures 4.2-2 through 4.2-4. Please refer also to the Project HRA (included at EIR Appendix C) for detailed exposure modeling inputs and results.

Residential Exposures

For the Residential Exposure Scenario, the Project HRA indicates that DPM emissions generated by the Project will have a less-than-significant health risk at the maximally impacted residential land use. More specifically, for the maximally exposed individual receptor (MEIR), the maximum risk is estimated to be 0.16 in one million, which does not exceed the SCAQMD DPM-source cancer risk threshold of 10 in one million.

Worker Exposures

For the Worker Exposure Scenario, the Project HRA indicates that DPM emissions generated by the Project will have a less-than-significant health risk at the maximally impacted worker location. More specifically, for the maximally exposed individual worker (MEIW), the maximum risk is estimated to be 0.47 in one million, which does not exceed the SCAQMD DPM-source cancer risk threshold of 10 in one million.

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LEGEND:

- Residential Receptor
- Maximally Exposed Individual Receptor

N

NOT TO SCALE

Source: Urban Crossroads, Inc.

Figure 4.2-2
MEIR Locations

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LEGEND:

- Worker Receptor
- Maximally Exposed Individual Worker

N

NOT TO SCALE

Source: Urban Crossroads, Inc.

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Figure 4.2-3
MEIW Locations

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Source: Urban Crossroads, Inc.

Figure 4.2-4
MEISC Locations

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School Site Exposures

For the School Child Exposure Scenario, the Project HRA indicates that DPM emissions generated by the Project will have a less-than-significant health risk at the maximally impacted school site. More specifically, for the maximally exposed individual school child (MEISC), the maximum risk is estimated to be 0.004 in one million, which does not exceed the SCAQMD DPM-source cancer risk threshold of 10 in one million.

Non-Carcinogenic Risk

An evaluation of the potential non-carcinogenic effects of chronic exposure to TACs was also conducted. Adverse health effects are evaluated by comparing a compound's annual concentration with its toxicity factor or Reference Exposure Level (REL). RELs employed in the Project HRA were obtained from the California Environmental Protection Agency, Office of Environmental Health Hazard (OEHHA); http://www.oehha.org/risk/chemicaldb/index.asp. Noncarcinogenic risks are numerically expressed as a Hazard Index (HI), with a threshold HI of 1.0. Noncarcinogenic Hazard Indices calculated to be less than 1.0 are considered less-than-significant.

Non-Carcinogenic Risk Exposure: Quantification Results

Non-carcinogenic risk exposures were quantified consistent with applicable SCAQMD methodology, and are expressed relative to Hazard Index threshold of 1.0. As noted above, non-carcinogenic Hazard Indices calculated to be less than 1.0 are considered less-than-significant. The Project HRA results for residential, worker, and school non-carcinogenic risk exposures are summarized below.

Residential Exposures

The calculated HI at the MEIR is estimated to be 0.0001, which would not exceed the applicable threshold of 1.0, and is therefore less-than-significant.

Worker Exposures

The calculated HI at the MEIW is estimated to be 0.002, which would not exceed the applicable threshold of 1.0, and is therefore less-than-significant.

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School Site Exposures

The calculated HI at the MEISC is estimated to be 0.00002, which would not exceed the applicable threshold of 1.0, and is therefore less-than-significant.

Cumulative TAC Impacts

Background

The South Coast Air Quality Management District (SCAQMD)[6] has conducted an analysis of the cumulative effects of Toxic Air Contaminants (TACs) within the South Coast Air Basin (Basin). This cumulative analysis, *Draft Final Report*, *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-IV)* (SCAQMD) April 2015, expresses cumulative TAC impacts in terms of potential increased cancer risks.[7] MATES-IV modeling predicts an excess cancer risk of 522.63 in one million for the Project area. [8] DPM is included in this cancer risk along with all other TAC sources. DPM accounts for 68% of the total risk shown in MATES-IV.

The SCAQMD has established a significance threshold for incremental project-level TAC impacts. Specifically, if a given project would generate TACs resulting in or causing an increase in cancer risks of 10 or more incidents per million population, that project's incremental cancer risk would be considered significant. This same significance threshold (10 in one million) is applied by SCAQMD in determining whether a given project's incremental contribution to ambient TAC-source cancer risks

[6] SCAQMD is the Responsible Agency providing guidance on applicable air quality analysis methodologies and air quality-related issues.

[7] Cancer risk refers to the probability of contracting cancer associated with exposure to a substance. It is expressed as the chance per million of a cancer case occurring. A risk of one per million, for example, would mean that in a population of one million individuals exposed over a 70-year lifetime, one additional cancer case would be expected.

[8] "MATES IV-Multiple Air Toxics Exposure Study." *South Coast Air Quality Management District*. South Coast Air Quality Management District, n.d. Web. 28 Feb. 2016. Localized background TAC-source cancer risk estimates are extrapolated from TAC monitoring data collected at 10 fixed sites within the South Coast Air Basin. *MATES-IV* extrapolates cancer risk levels throughout the Basin at 1.25 mile by 1.25 mile grids.

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is cumulatively considerable. The SCAQMD has not however established a significance threshold for ambient cumulative TAC impacts affecting the Basin. Likewise, the City of Moreno Valley (the Lead Agency) has no adopted cumulative TAC impacts significance threshold.

Absent an established threshold for cumulative TAC impacts, the following discussion assesses whether, in the light of other available existing information, the ambient cumulative TAC-source impacts affecting the Basin and the area encompassing the Project site could be characterized as significant.

Comparing the Study Area ambient cumulative TAC-source cancer risk (522.63 per million) to the SCAQMD's established threshold for project-level TAC-source cancer risks (10 in one million), the ambient cumulative TAC-source cancer risk is approximately 52.3 times greater than the incremental risk at which project-level TAC-source cancer risks would be considered significant.

Although there is not yet an established significance threshold for ambient cumulative TAC impacts, given the magnitude by which the ambient cumulative condition exceeds SCAQMD's established project-level significance threshold (ambient cumulative TAC conditions are 52.3 times greater than the project-level threshold), the ambient cumulative condition would likely exceed whatever significance threshold may be established for cumulative impacts affecting the Basin. On this basis, and absent a prevailing threshold adopted by the Lead or Responsible Agency, ambient cumulative TAC impacts are presumed to be significant.

Related Projects Contribution to Cumulative TAC Impacts

In addition to the *MATES-IV* cumulative TAC-source cancer risk noted above, other new or proposed potential TAC-generating projects (related projects) in the Study Area could contribute to cumulative TAC impacts. These related projects, due to their recency and/or tentative nature, are not reflected in the cumulative TAC impacts identified in the *MATES-IV* study.

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In consultation with the Lead Agency, related TAC-generating projects located within a one-quarter mile radius of the Project were identified and are reflected in this cumulative TAC analysis. The one-quarter mile radius encompassed within the cumulative TAC analysis reflects CARB and South Coast District analyses indicating an 80-percent drop-off in TAC concentrations at approximately 1,000 feet from the TAC source under consideration (California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective.* 2005.) Beyond 1,000 feet, the TAC emissions would be reduced and diffused such that they would not substantively and discernibly contribute to or interact with TAC emissions from other distinct sources. The one-quarter mile (1,320 feet) Study Area radius employed in the Project HRA therefore encompasses and extends beyond the distance at which related projects would generate TACs that would likely interact with TACs generated by the proposed Indian Street Commerce Center Project. The related projects listed below were selected based on their propensity to generate TACs that would contribute to, or interact with, TACs generated by the Project.

- PA 06-0152 & PA 06-0153 (First Park Nandina I & II) (483,767 square feet of high-cube warehouse);
- First Inland Logistics Center (400,130 square feet of high-cube warehouse);
- PA 09-0004 (Vogel) & Sares Regis (2,400,000 square feet of high-cube warehouse);
- First Nandina Logistics Center (1,450,000 square feet of high-cube warehouse);
- First Park Nandina III & Moreno Valley Commerce Park (1,046,282 square feet of high-cube warehouse);
- IDS/Real Estate Group - Nandina Distribution Center (697,000 square feet of high-cube warehouse);
- Moval Assemblage (459,945 square feet of high-cube warehouse);
- SP 341; PP 21552 (Majestic Freeway Business Center) (6,100,715 square feet of high-cube warehouse);
- PP 20699 (Oleander Business Park) (1,206,710 square feet of warehouse);
- 05-0113 (IDI) (1,750,000 square feet of high-cube warehouse);
- P 07-09-0018 (170,000 square feet of warehouse);
- P 05-0411 (Concrete Batch Plant) (2,000 square feet of manufacturing);

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- P 04-0343 (41,650 square feet of warehouse);
- PM 34199 & DPR 05-0387 & DPR 05-0452 & TPM 34697 & DPR 06-0396 (103,754 square feet of general light industrial use and 191,023 square feet of warehouse); and
- Integra Pacific Industrial Facility (880,000 square feet of high-cube warehouse).

Project Contribution to Cumulative TAC Impacts

Project-source TACs would incrementally increase the background cancer risk by a maximum of 0.47 incidents per million population. The applicable SCAQMD significance threshold for Project-level TAC-source cancer risk impacts is 10 incidents per million population. Similarly, SCAQMD significance thresholds state that project contributions to cumulative TAC-source cancer risks would be cumulatively considerable if greater than 10 incidents per million population would occur. The 0.47 incidents per million population increment resulting from the Project is therefore not significant, nor cumulatively considerable.

Study Area Cumulative TAC Impacts

To provide context for, and quantify cumulative TAC effects within the Study Area, the Project TAC-source cancer risk, was added to the total background risk derived from the *MATES-IV* study, yielding a maximum potential cumulative TAC-source risk affecting the Study Area. As indicated at Table 4.2-19, the maximum potential cumulative cancer risk within the Study Area is estimated at 839.36 incidents per million.

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Table 4.2-19
Study Area Cumulative Cancer Risk

Cumulative Impact Scenario	Risk Sources			Maximum Cumulative Risk
	Background TACs	Related Projects TACs	Project TACs	
	Cancer Risk Per Million Population			
Ambient Cumulative Impact	522.63	---	---	**522.63**
Cumulative Impact With Project Alone	522.63	0	0.47	**523.10**
Cumulative Impact With Project and Related Projects	522.63	316.26	0.47	**839.36**

Source: *Indian Street Commerce Center Mobile Source Diesel Health Risk Assessment, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.
Notes: Background TAC risk from: *MATES-IV Carcinogenic Risk Interactive Map* http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iv

The *MATES-IV* ambient cumulative TAC impact represents approximately 62.3 percent of the total cumulative impact identified at Table 4.2-19 and, due to its magnitude when compared to project-level TAC impact significance thresholds, is presumed to be cumulatively significant. The Project would incrementally contribute to this presumably significant cumulative impact. However, the Project's maximum incremental contribution of 0.47 incidents per million population would not exceed, or even approach the established SCAQMD threshold (10 incidents per million population) at which project-level TAC contributions would be determined cumulatively considerable. On this basis, Project TAC emissions impacts are not considered cumulatively considerable. Please refer also to the Project Air Quality Impact Analysis (AQIA) and Project Health Risk Analysis (HRA) presented at EIR Appendix C.

Level of Significance: Less-Than-Significant.

Localized Air Quality Impact Analysis Summary

As substantiated by the preceding discussions, maximum mitigated Project construction-source and operational-source emissions would not exceed applicable SCAQMD LSTs at the nearest sensitive receptors. Nor would the Project create or result in localized CO hot spots. Further, Project TACs would not result in or cause potentially

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significant health risks, either at the project-level or cumulatively. On this basis, the potential for the Project's localized emissions to violate any air quality standard or contribute substantially to an existing or projected air quality violation is considered less-than-significant.

Level of Significance: Less-Than-Significant.

Potential Impact: ***Expose sensitive receptors to substantial pollutant concentrations.***

Impact Analysis: Sensitive receptors can include uses such as long-term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child care centers, and athletic facilities can also be considered as sensitive receptors. As concluded in the above discussion of Localized Air Quality Impacts, the sensitive receptors nearest the Project site would not be subject to emissions exceeding SCAQMD LSTs. Nor would the Project create or result in localized CO hot spots. The Project HRA, summarized herein, substantiates that the Project would not generate or result in localized concentrations of TACs that would create or result in potentially significant health risks.

Based on the preceding, the potential for the Project to expose sensitive receptors to substantial pollutant concentrations is considered less-than-significant.

Level of Significance: Less-Than-Significant.

Potential Impact: ***Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard, including releasing emissions which exceed quantitative thresholds for ozone precursors.***

Impact Analysis: The Project area is designated as an extreme non-attainment area for ozone; a serious non-attainment area for PM_{10}; and a non-attainment area for $PM_{2.5}$. Germane to these regional non-attainment conditions, the Project-specific evaluation of

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emissions presented in this Section indicates that even after application of mitigation, Project operational-source NO_x emissions would exceed applicable SCAQMD regional significance thresholds. The fact that the Project operational-source NOx emissions would exceed applicable SCAQMD thresholds indicates that the Project impacts in these regards are significant on an individual basis, and under SCAQMD significance criteria, would therefore also be cumulatively considerable.

NO_x is an ozone precursor. Project operational-source emissions of NO_x would therefore contribute to a cumulatively considerable net increase in the ozone precursor NO_x within the encompassing ozone non-attainment area. Additionally, NO_x is a precursor to $PM_{10}/PM_{2.5}$, and Project operational-source emissions of NO_x would therefore contribute to a cumulatively considerable net increase in $PM_{10}/PM_{2.5}$ levels within the encompassing $PM_{10}/PM_{2.5}$ nonattainment area. These are potentially significant cumulative air quality impacts.

Please refer also to the discussion of cumulative air quality impacts presented at EIR Section 5.0, *Other CEQA Considerations*.

Level of Significance: Potentially Cumulatively Significant.

Mitigation Measures: Please refer to previous Mitigation Measure 4.2.5.

Level of Significance after Mitigation: ***Cumulatively Significant.*** Mitigation Measure 4.2.5 would reduce Project-source air pollutant emissions, including NO_x emissions, to the extent feasible. The Project would also comply with all applicable SCAQMD Rules and would be required to comply with development standards and energy efficiency performance standards established by the City of Moreno Valley.

Approximately 96 percent of the Project NO_x emissions (by weight) would be generated by vehicles accessing the Project site. Mobile-source vehicle tail pipe emissions cannot be materially controlled or mitigated by the Lead Agency or the Project Applicant.

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Rather, these emissions sources are regulated by CARB and USEPA. As summarized herein at Section 4.2.5, Regional Air Quality Trends, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve. Future CARB and USEPA actions could be expected to have a positive effect on Project-related vehicular-source emissions, resulting in incremental reductions in vehicular-source emissions when compared to either the Project AQIA emissions estimates. No further feasible measures are available that would substantively mitigate the Project's operational-source NO_x emissions.

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4.3 GLOBAL CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS

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4.3 GLOBAL CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS

Abstract

This Section identifies and addresses potential air greenhouse gas (GHG) emissions impacts that may result from construction and implementation of the Project. More specifically, the GHG emissions impacts analysis evaluates the potential for the Project to cause or result in the following impacts:

- *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or*

- *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

On the basis of the analysis presented in the Project GHG Analysis as summarized herein, even with the application of mitigation and compliance with practices, policies, and strategies outlined in the City of Moreno Valley Energy Efficiency and Climate Action Strategy, *the Project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. Project-source GHG emissions would also conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Project GHG emissions impacts would therefore be significant and unavoidable. Please refer also to related discussion of cumulative GHG emissions impacts presented at EIR Section 5.0,* Other CEQA Considerations, *5.2.3,* Cumulative Impacts Related to GHG Emissions/Global Climate Change.

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4.3.1 INTRODUCTION

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the Earth with respect to temperature, precipitation, and storms. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases in the atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. Most scientists believe that recent increases in greenhouse gases resulting from human activity and industrialization have accelerated and amplified GCC effects.

An individual development proposal, such as the Project considered herein, cannot generate enough greenhouse gas (GHG) emissions to effect a discernible change in global climate. However, the Project may contribute to the global climate change through its increment of greenhouse gases in combination with the cumulative increase in GHGs from all other sources, which when taken together constitute potential influences on global climate change. This Section summarizes the potential for the Project GHG emissions to have a potentially significant environmental impact. Detailed analysis of the Project's potential GHG/GCC impacts is presented in *Indian Street Commerce Center Greenhouse Gas Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016 (Project GHG Analysis, EIR Appendix D).

4.3.2 EXISTING CONDITIONS

4.3.2.1 Global Climate Change

Global Climate Change refers to the change in average meteorological conditions with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO_2 (Carbon Dioxide), N_2O (Nitrous Oxide), CH_4 (Methane), hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important due to their residence time (duration) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the atmosphere, but prevent heat from escaping, thus warming the atmosphere. GCC can occur naturally as it has in the past with the previous ice ages. According to the California Air Resources Board

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(CARB), the climate change that is currently in effect differs from previous climate changes in both rate and magnitude (CARB, 2004, *Technical Support document for Staff Proposal Regarding Reduction of Greenhouse Gas Emissions from Motor Vehicles*).

4.3.2.2 Greenhouse Gases

Gases that trap heat in the atmosphere are often referred to as greenhouse gases or GHGs. Greenhouse gases are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural greenhouse gas effect, the average temperature would be approximately 61° Fahrenheit (F) cooler than it is currently. The accumulation of these gases in the atmosphere is considered to be the cause for the observed increase in the Earth's temperature.

Although California's rate of growth of greenhouse gas emissions is slowing, the state is still a substantial contributor. In 2004, the state is estimated to have produced 492 million gross metric tons of carbon dioxide equivalent greenhouse gas emissions. For the purposes of this analysis, Project-related emissions of carbon dioxide, methane, and nitrous oxide were evaluated because these gases are the primary contributors to global climate change from development projects. Emissions from Project facilities and stationary sources as well as emissions generated by Project-related vehicular traffic were included in the evaluation of potential GHG emissions impacts.

Greenhouse gases exhibit varying global warming potentials (GWPs). GWP values represent the potential of a gas to trap heat in the atmosphere. Carbon dioxide is utilized as the baseline GWP reference gas, and thus has a GWP of 1. The atmospheric lifetime and GWP of greenhouse gases typically generated by urban development, and would be generated by the Project, are summarized at Table 4.3-1.

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Table 4.3-1
Global Warming Potentials and Atmospheric Lifetimes

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)
Carbon Dioxide	50 - 200	1
Methane	12 (+/-3)	25
Nitrous Oxide	120	298

Source: *Indian Street Commerce Center Greenhouse Gas Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

The following discussions summarize and describe commonly occurring greenhouse gases, their sources, and general characteristics.

Water Vapor

Water vapor (H_20) is the most abundant, important, and variable greenhouse gas in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change.

As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. For example, increased atmospheric water vapor translates to increased cloud cover and increased reflection of

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incoming solar radiation (thus diminishing potential radiant heating of the Earth's surface).

The main source of water vapor is evaporation from the oceans (approximately 85 percent). Other sources include: evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.

Carbon Dioxide

Carbon dioxide (CO_2) is an odorless and colorless GHG. Outdoor levels of carbon dioxide are not high enough to result in negative health effects. Carbon dioxide is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. Carbon dioxide is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks.

Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Left unchecked, the concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources.

Methane

Methane (CH_4) is an extremely effective absorber of radiation, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs.

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Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide

Nitrous oxide (N_2O), also known as laughing gas, is a colorless greenhouse gas. Concentrations of nitrous oxide also began to rise at the beginning of the industrial revolution. By 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. Nitrous oxide can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction.

Chlorofluorocarbons

Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the Earth's surface).

CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are

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now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons

Hydrofluorocarbons (HFCs) are synthetic, fabricated chemicals that are used as a substitute for CFCs. Out of all the greenhouse gases; they are one of three groups with the highest global warming potential. The HFCs with the greatest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were of HFC-23. HFC-134a emissions are increasing due to its use as a refrigerant. The U.S. EPA estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt.

Perfluorocarbons

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through chemical processes in the lower atmosphere. Not until the PFCs reach the mesosphere, about 60 kilometers above Earth, do very high-energy ultraviolet rays from the sun destroy them. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The U.S. EPA estimates that concentrations of CF_4 in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur Hexafluoride

Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900). The U.S. EPA indicates that concentrations in the 1990s were about 4 ppt. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

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4.3.2.3 Greenhouse Gases Emissions Inventories

Global

Worldwide anthropogenic (man-made) GHG emissions are tracked by the Intergovernmental Panel on Climate Change for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Man-made GHG emissions data for Annex I nations are available through 2012. Global GHG emissions are summarized at Table 4.3-2. As indicated, global emissions totaled approximately 28,865,994 gigagrams (Gg) Carbon Dioxide Equivalent (CO_2e) for the Year 2012. The GHG emissions in more recent years may differ from the inventories presented in Table 4.3-2; however, the data is representative of currently available inventory data.

National

Table 4.3-2 summarizes 2011 GHG emissions inventories by major source countries. As indicated at Table 4.3-2, the United States was the number two producer of GHG emissions in 2012. The primary greenhouse gas emitted by human activities in the United States was CO_2, representing approximately 83 percent of U.S. total greenhouse gas emissions. Carbon dioxide from fossil fuel combustion accounted for approximately 78 percent of U.S. GHG emissions.[1]

Table 4.3-2
Global GHG Emissions by
Major GHG Source Countries-2012

Source Countries	GHG Emissions (Gg CO_2e)
China	10,975,500
United States	6,665,700
European Union (27 member countries)	4,544,224
Russian Federation	2,322,220
India	3,013,770

[1] Project GHG Analysis, p. 12.

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Table 4.3-2
Global GHG Emissions by
Major GHG Source Countries-2012

Source Countries	GHG Emissions (Gg CO_2e)
Japan	1,344,580
Total	**28,865,994**

Source: *Indian Street Commerce Center Greenhouse Gas Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

State of California

CARB compiles GHG inventories for the State of California. CARB GHG inventory data indicates that in 2013 (the most recent inventory of record) California GHG emissions totaled approximately 459.3 Million Metric Tons of Carbon Dioxide Equivalent ($MMTCO_2e$).[2] "In 2010, California accounted for 6.8 percent of all emissions in the country [United States], and ranked second highest among the states with total emissions of 453 $MMTCO_2e$, only behind Texas with 763 $MMTCO_2e$. From a per capita standpoint, California has the 45th lowest emissions with 12.1 $MMTCO_2e$/person in 2010."[3]

City of Moreno Valley

Year 2010 Baseline Community GHG emissions for the City of Moreno Valley are estimated at 920,712 MTCO2e/year, as summarized at Table 4.3-3.

Table 4.3-3
City of Moreno Valley GHG Emissions Inventory

Source/Sector	$MTCO_2e$/year	Percent of Total
Transportation	513,581	56%
Energy	277,230	30%
Area Sources	69,437	7%

[2] Cal EPA. "California Greenhouse Gas Emission Inventory - 2015 Edition." *California's Greenhouse Gas Emission Inventory*. Cal EPA, n.d. Web. 29 Oct. 2015.
[3] California Environmental Protection Agency. Air Resources Board. *California's Greenhouse Gas Emission Inventory - 2014 Edition* (May 2014), p. 28.

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Table 4.3-3
City of Moreno Valley GHG Emissions Inventory

Source/Sector	$MTCO_2e$/year	Percent of Total
Solid Waste	43,633	5%
Water and Wastewater	16,831	2%
Totals	**920,712**	**100%**

Source: *Final City of Moreno Valley Greenhouse Gas Analysis* (Atkins) February 2012; Table 3-6.

Project Site Greenhouse Gas Emissions

The Project site is currently vacant and undeveloped, and is not a substantive source of GHG emissions.

4.3.2.4 Effects of Global Climate Change

Climate

Scenarios of Climate Change in California: An Overview (California Climate Change Center) February 2006 (Climate Scenarios Report) is generally instructive about the potential effects of Global Climate Change within California. The Climate Scenarios Report employs a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project a series of potential "warming ranges" that may occur in California during the 21st century: lower warming range (3.0-5.5°F); medium warming range (5.5-8.0°F); and higher warming range (8.0-10.5°F). The Climate Scenarios Report then presents an analysis of future climatic conditions in California under each warming range, that while uncertain, are descriptive of potential impacts of global climate change trends in California.

California Climate Adaptation Strategy (California Natural Resources Agency) August 5, 2009 (Climate Adaptation Strategy) presents a range of potential vulnerabilities arising from climate change including: temperature extremes, sea level rise, wildfires, floods, droughts, and altered precipitation patterns. The Climate Adaptation Strategy responds to the Executive Order S-13-2008 requiring state agencies to develop strategic responses to anticipated climate impacts.

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The Climate Scenarios Report and Climate Adaptation Strategy indicate that substantial temperature increases arising from increased GHG emissions could result in a broad range of impacts to the people, economy, and environment of California. Impacts of global climate change in California have the potential to include, but are not limited to, the following.

Public Health

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35 percent under the lower warming range to 75 to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios Report indicates that large wildfires could become more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A network of man-made reservoirs and aqueducts captures and transports water throughout the state. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

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If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there may be years with marginal insufficient snow for skiing and snowboarding, as was evidenced for the period 2013–2014.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major source of fresh water for the state.

Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25 percent of the water supply they need. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate O_3 pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

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Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts.

In addition, continued global climate change could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued global climate change could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors (e.g., precipitation, winds, temperature, terrain, and vegetation) future risks would likely not be uniform throughout the state.

Moreover, continued global climate change has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80 percent by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of global climate change.

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Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Increased sea level elevations of this magnitude would inundate low-lying coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12 to 14 inches.

4.3.2.5 GHG Health Effects

Health effects of greenhouse gases are summarized below.

Water Vapor

There are no known direct health effects related to water vapor at this time. Water vapor may however act as a transport mechanism for pollutants to enter the human body.

Carbon Dioxide

The National Institute for Occupational Safety and Health (NIOSH) has determined that high concentrations of carbon dioxide can result in health effects including: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. Current concentrations of carbon dioxide in the earth's atmosphere are estimated at approximately 370 ppm, while the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek; and short-term reference exposure levels of 30,000 ppm averaged over a 15-minute period (NIOSH 2005).

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Methane

Methane is extremely reactive with oxidizers, halogens, and other halogen-containing compounds, may displace oxygen in an enclosed space and act as an asphyxiant (Occupational Safety and Health Administration [OSHA] 2003).

Nitrous Oxide

Nitrous Oxide is often referred to as laughing gas; it is a colorless greenhouse gas. The health effects associated with exposure to elevated concentrations of nitrous oxide include dizziness, euphoria, slight hallucinations, and in extreme cases of elevated concentrations nitrous oxide can also cause brain damage (OSHA 1999).

Chlorofluorocarbons

CFCs are no longer being used; therefore, it is not likely that health effects would be experienced. Nonetheless, in confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

Fluorinated Gases (HFCs, PFCs, SF_6)

High concentrations of fluorinated gases can also result in adverse health effects such as asphyxiation, dizziness, headache, cardiovascular disease, cardiac disorders, and in extreme cases, increased mortality (NIOSH 1989, 1997).

4.3.2.6 Regulatory Setting

2015 United Nations Paris Climate Change Conference

On December 12, 2015, 195 nations, including the United States and China, established a strategy for combatting global climate change, targeted to effective by 2020. COP 21 participating nations agreed to a universal long-term goal of maintaining a global temperature at 2°C (3.6°F) above pre-industrial levels. The COP 21 agreement also encouraged individual participating nations to limit temperature increases to 1.5°C (2.7°F) above pre-industrial levels. COP21 participants agreed further to initiate GHG

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reduction strategies as soon as possible, recognizing that this process may be protracted for developing nations. Subsequent GHG emissions reductions are to be achieved in accordance to best available technological advances.

Western Regional Climate Action Initiative (WCI)

The Western Regional Climate Action Initiative (WCI) is a partnership among seven states, including California, and four Canadian provinces to implement a regional, economy-wide cap-and-trade system to reduce global warming pollution. The WCI will cap GHG emissions from the region's electricity, industrial, and transportation sectors with the goal to reduce the heat trapping emissions that cause global warming to 15% below 2005 levels by 2020. When the WCI adopted this goal in 2007, it estimated that this would require 2007 levels to be reduced worldwide between 50% and 85% by 2050. California is working closely with the other states and provinces to design a regional GHG reduction program that includes a cap-and-trade approach.

EPA Actions and the Clean Air Act

Coinciding the 2009 meeting in Copenhagen, on December 7, 2009, the U.S. Environmental Protection Agency (EPA) issued an Endangerment Finding under Section 202(a) of the Clean Air Act, opening the door to federal regulation of greenhouse gases. The Endangerment Finding notes that greenhouse gas emissions threaten public health and welfare and are subject to regulation under the Clean Air Act. Current EPA GHG emissions initiatives, plans, and standards can be accessed at: http://www.epa.gov/climatechange/EPAactivities/regulatory-initiatives.html

Vehicle Standards

Other regulations have been adopted to address vehicle standards including United States Environmental Protection Agency (USEPA) and National Highway Traffic Safety Administration (NHTSA) joint rulemaking for vehicle standards. Recent actions are summarized below:

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- USEPA and NHTSA have issued a Supplemental Notice of Intent announcing plans to propose stringent, coordinated federal greenhouse gas and fuel economy standards for model year 2017–2025 light-duty vehicles. The NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.

- USEPA and the NHTSA have established enhanced fuel economy and GHG standards for medium- and heavy-duty vehicles, which applies to vehicles from model years 2014–2018.

- USEPA and the NHTSA have proposed enhanced fuel economy and GHG standards for medium- and heavy-duty vehicles for model years 2018 and beyond.

Energy Independence and Security Act

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA, Act) was signed into law. Among other key measures, the Act promotes nation-wide GHG emissions reductions from mobile and non-mobile sources.

Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) Guidelines on GHG

Draft guidance prepared by the Council on Environmental Quality (CEQ) addresses consideration and evaluation of greenhouse gases and climate change within NEPA analyses. The guidance recommends that proposed federal actions that are reasonably expected to directly emit 25,000 metric tons of CO_2e/year should prepare a quantitative and qualitative NEPA analysis of direct and indirect greenhouse gas emissions.

The draft guidance provides reporting tools and instructions on how to assess the effects of climate change. The draft guidance does not apply to land and resource management actions, nor does it propose to regulate greenhouse gases. Although CEQ has not yet issued final guidance, various NEPA documents are beginning to incorporate the approach recommended in the draft guidance.

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California Title 24 Energy Standards

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (Energy Efficiency Standards, California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from development projects subject to the Energy Efficiency Standards. The CEC's most recent, 2013 Building Energy Efficiency Standards, took effect on January 1, 2014. The *2013 Building Energy Efficiency Standards for Residential and Nonresidential Building* Abstract summarizes key attributes and anticipated environmental benefits of the 2013 Energy Efficiency Standards, as excerpted below:

> The 2013 Building Energy Efficiency Standards focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings, and include requirements that will enable both demand reductions during critical peak periods and future solar electric and thermal system installations. The most significant efficiency improvements to the residential Standards are proposed for windows, envelope insulation and HVAC system testing. The most significant efficiency improvements to the nonresidential Standards are proposed for lighting controls, windows, unitary HVAC equipment and building commissioning. New efficiency requirements for process loads such as commercial refrigeration, data centers, kitchen exhaust systems and compressed air systems are included in the nonresidential Standards. The 2013 Standards include expanded criteria for acceptance testing of mechanical and lighting systems, as well as new requirements for code compliance data to be collected in a California Energy Commission-managed repository.

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The 2013 Standards also include updates to the energy efficiency divisions of the California Green Building Code Standards (Title 24, Part 11). A set of prerequisites has been established for both the residential and nonresidential Reach Standards, which include efficiency measures that should be installed in any building project striving to meet advanced levels of energy efficiency. The residential Reach Standards have also been updated to require additional energy efficiency or on-site renewable electricity generation to meet a specific threshold of expected electricity use. Both the residential and nonresidential Reach Standards include requirements for additions and alterations to existing buildings.

Energy Commission staff estimates that the implementation of the 2013 Building Energy Efficiency Standards may reduce statewide annual electricity consumption by approximately 613 gigawatt-hours per year, electrical peak demand by 195 megawatts, and natural gas consumption by 10 million therms per year. The potential effect of these energy savings to air quality may be a net reduction in the emission of nitric oxide by approximately 59 tons per year, sulfur oxides by 2.4 tons per year, carbon monoxide by 41 tons per year and particulate matter less than 2.5 microns in diameter by 10 tons per year. Additionally, Energy Commission staff estimates that the implementation of the 2013 Standards may reduce statewide carbon dioxide equivalent emissions by 215 thousand metric tons per year (*2013 Building Energy Efficiency Standards for Residential and Nonresidential Building*, Abstract).

The 2013 Energy Efficiency Standards also include updates to the energy efficiency divisions of the California Green Building Code Standards, (CALGreen Code, Title 24, Part 11). The stated purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design;

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(2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality" (2013 CALGreen Code, p. 1). The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). The CBSC has released the 2010 California Green Building Standards Code on its web site. Unless otherwise noted in the regulation, all newly constructed buildings in California are subject to the requirements of the CALGreen Code.

California Assembly Bill No. 1493 (AB 1493)

California Assembly Bill 1493 requires CARB to develop and adopt the nation's first greenhouse gas emission standards for automobiles. The Legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in California; and stated that technological solutions to reduce greenhouse gas emissions would stimulate the California economy and provide jobs.

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13 1961) and adoption of Section 1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016. Subsequent lawsuits filed against CARB prevented enforcement of CCR 13 1900 and CCR 13 1961 as amended by AB 1493 and CCR 13 1961.1.

Litigation against CARB culminated in the USEPA and the U.S. Department of Transportation adoption of a federal program to reduce greenhouse gases and improve fuel economy from passenger vehicles in order to achieve greenhouse gas benefits equivalent to, or greater than, benefits that would be realized pursuant to AB 1493

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regulations. Additionally, the State of California committed to (1) revise its standards to allow manufacturers to demonstrate compliance with the fleet-average GHG emission standard by "pooling" California and specified State vehicle sales; (2) revise its standards for 2012–2016 model year vehicles so that compliance with USEPA-adopted GHG standards would also comply with California's standards; and (3) revise its standards, as necessary, to allow manufacturers to use emissions data from the federal Corporate Average Fuel Economy (CAFE) program to demonstrate compliance with the AB 1493 regulations.

Executive Order S-3-05

Executive Order S-3-05 proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 1990 level by 2020, and to 80 percent below the 1990 level by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary also is required to submit biannual reports to the Governor and state Legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Action Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

Executive Order B-30-15

Executive Order B-30-15 (April 29, 2015) states a new statewide policy goal to reduce GHG emissions 40 percent below their 1990 levels by 2030. As of this writing, the state

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legislature has not enacted law, nor has CARB adopted regulations or standards implementing the Executive Order's goal statements.

California Assembly Bill 32 (AB 32)

California Assembly Bill 32 (AB 32), the California Climate Solutions Act of 2006, requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. To date, this reduction is being accomplished through an enforceable phased statewide cap on GHG emissions. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 indicates further that regulations adopted in response to AB 1493 should address GHG emissions from vehicles. Assembly Bill 32 contingencies also include provisions stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

In November 2007, CARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 million metric tons CO_2 equivalent ($MMTCO_2e$). Accordingly, 427 $MMTCO_2e$ was established as the emissions limit for 2020. In comparison, CARB's estimate for baseline GHG emissions was 473 $MMTCO_2e$ for 2000 and 532 $MMTCO_2e$ for 2010. "Business as usual" conditions (estimated GHG emissions levels absent CARB regulatory actions) for 2020 were projected to be 596 $MMTCO_2e$.

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In December 2007, CARB approved a regulation for mandatory reporting and verification of GHG emissions for major sources. This regulation covered major stationary sources such as cement plants, oil refineries, electric generating facilities/providers, and co-generation facilities, which comprise 94 percent of the point source CO_2 emissions in the State.

On December 11, 2008, CARB adopted a Scoping Plan (CARB Scoping Plan, Scoping Plan) to reduce GHG emissions to 1990 levels. The Scoping Plan's recommendations for reducing GHG emissions to 1990 levels by 2020 include emission reduction measures, including a cap-and-trade program linked to Western Climate Initiative partner jurisdictions, green building strategies, recycling and waste-related measures, as well as Voluntary Early Actions and Reductions. In order to achieve 2020 greenhouse gas emissions reductions targets, the CARB Scoping Plan indicates that implementation of individual measures should have been initiated no later than January 1, 2012. The Project GHG Analysis (EIR Appendix D) summarizes estimated year 2020 GHG emissions reductions from regulations and programs outlined in the Scoping Plan.

California Senate Bill No. 1368

In 2006, the State Legislature adopted Senate Bill 1368 (SB 1368), which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission (CPUC) to adopt a greenhouse gas emission performance standard (EPS) for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Coal-fired plants cannot meet this standard because such plants emit roughly twice as much carbon as combined cycle natural gas power plants.

SB 1368 effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State.

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Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California energy demand.

CEQA Guidelines

CEQA Guidelines § 15064.4(a) states "A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use . . .; or (2) Rely on a qualitative analysis or performance based standards."

CEQA emphasizes that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis. (See: *CEQA Guidelines* Section 15130(f)).

Section 15064.4(b) of the *CEQA Guidelines* provides direction for lead agencies for assessing the significance of impacts of greenhouse gas emissions:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;

2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or

3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

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City of Moreno Valley Energy Efficiency and Climate Action Strategy

The *City of Moreno Valley Energy Efficiency and Climate Action Strategy* (City of Moreno Valley) October 9, 2012 (CAS) establishes practices, policies, and strategies directed at the conservation and efficient use of energy and water that would collectively act to reduce municipal and community greenhouse gas emissions. The CAS establishes a year 2020 GHG emissions reductions target representing a 15% decrease in baseline (2010) City GHG emissions levels.

4.3.3 GCC Significance Thresholds and Performance Standards

CEQA Guidelines

The *CEQA Guidelines* do not identify a threshold of significance for greenhouse gas emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Rather, the *Guidelines* call for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project" (*CEQA Guidelines* §15064.4 [a]).

The *Guidelines* encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence. The *Guidelines* also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. *CEQA Guidelines'* suggested Environmental Checklist GHG topical issues have been incorporated into the analytic discussions presented subsequently within this Section.

Executive Order S-01-07

Executive Order S-01-07 establishes a statewide goal to reduce the carbon intensity of California's transportation fuel by at least ten percent by 2020. The Order requires further that a California-specific Low Carbon Fuel Standard be established for transportation fuels.

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Senate Bills 1078 and 107 and Executive Order S-14-08

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least twenty percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. Executive Order S-14-08 expanded the state's Renewable Energy Standard to 33 percent renewable power by 2020.

Senate Bill 375

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) prescribing land use allocations in that MPO's regional transportation plan (RTP). Under SB 375, CARB provides each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035.

CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned GHG reduction targets. If MPOs do not meet their assigned GHG reduction targets, transportation projects will not be eligible for funding programmed after January 1, 2012.

Senate Bill 375 also extends the minimum time period for the regional housing needs allocation cycle from five years to eight years for local governments located within an MPO that meets certain requirements. City or county land use policies (including general plans) consistency with the regional transportation plan (and associated SCS or APS) is not required. However, new provisions of CEQA would incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or APS, categorized as "transit priority projects."

The Southern California Association of Governments (SCAG) is required by law to update the Southern California Regional Transportation Plan (RTP) every four years. On April 4, 2012, the Regional Council of the SCAG adopted: *2012-2035 Regional*

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Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future. The RTP/SCS incorporates land use and housing policies to meet the greenhouse gas emissions targets established by the CARB.

Executive Order B-30-15

Executive Order B-30-15 (April 29, 2015) states a new statewide policy goal to reduce GHG emissions 40 percent below their 1990 levels by 2030. As of this writing, the state legislature has not enacted law, nor has CARB adopted regulations or standards implementing the Executive Order's goal statements.

South Coast Air Quality Management District Recommendations

In April 2008, the South Coast Air Quality Management District (SCAQMD), in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group." The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until CARB (or some other state agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the Working Group with a significance threshold that could be applied to various types of projects—residential, non-residential, industrial, etc. However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects where it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) as a screening numerical threshold for stationary sources. More importantly, it should be noted that when setting the 10,000 $MTCO_2e$ threshold, the SCAQMD did not consider mobile sources (vehicular travel). Rather the threshold is applicable to stationary source generators such as boilers, refineries, power plants, etc. Therefore, it would be misleading to apply this threshold, developed without consideration for mobile sources, to a Project where the majority of emissions are related to mobile sources. Moreover, by its terms, the threshold applies only to projects

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where the SCAQMD is the lead agency, and would therefore not be applicable here. There is no SCAQMD threshold that can be applied to this Project.

In September 2010, the Working Group released additional revisions which recommended a threshold of 3,500 $MTCO_2e$ for residential projects, 1,400 $MTCO_2e$ for commercial projects, and 3,000 $MTCO_2e$ for mixed use projects. Additionally, the working group identified a project-level efficiency target of 4.8 $MTCO_2e$ per service population as a 2020 target and 3.0 $MTCO_2e$ per service population as a 2035 target. The recommended plan-level target for 2020 was 6.6 $MTCO_2e$ and the plan level target for 2035 was 4.1 $MTCO_2e$. The SCAQMD has not announced when staff is expecting to present a finalized version of these thresholds to the Governing Board; thus, these proposed thresholds are not applicable to the proposed project. The SCAQMD has also adopted Rules 2700, 2701, and 2702 that address GHG reductions; however, these rules are currently applicable to boilers and process heaters, forestry, and manure management projects, none of which are germane to the Project considered herein. To date, the SCAQMD and CARB have not established quantified GHG emissions significance thresholds for projects being evaluated under CEQA.

Lead Agency Threshold as Applied in This Analysis

Under CEQA, the City has discretion to select and employ substantiated GHG emissions thresholds and significance criterion. To this end, the City has established a GHG emissions threshold of 10,000 MTCO2e per year for industrial stationary-source GHG emissions. This threshold correlates with the adopted AQMD GHG emissions threshold for industrial uses. In this latter regard, the Project is considered analogous to industrial uses considered by the AQMD. That is, the Project proposes a relatively large building (approximately 446,350 square feet) with loading bays and fenced truck courts that are expected to house a tenant (or tenants) providing mid-stream functions in the goods movement chain between manufacturers and consumers, characteristic of an industrial operation. Further, trip generation for the Project is based on the Institute of Transportation Engineers (ITE) trip generation rates for industrial and warehouse uses. The 10,000 MTCO2e/year threshold has also been used by other area lead agencies in determining GHG emissions impacts significance for similar logistics projects.

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Use of the 10,000 MTCO2e/year threshold also comports with guidance provided in the CAPCOA *CEQA and Climate Change Handbook* (Handbook). More specifically, Handbook Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold that would capture approximately 90 percent of GHG emissions from future development. SCAQMD employed this method in developing the 10,000 MTCO2e/year threshold for industrial uses described above.

To ensure that the 10,000 MTCO2e threshold is conservatively applied within this analysis, the threshold is applied to all sources of Project-related GHG emissions whether stationary source, mobile source, area source, or other. In contrast, the AQMD considers only stationary/area-source emissions when determining a given project's GHG emissions impact significance.

4.3.4 IMPACT STATEMENTS

Potential Impact: ***Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.***

Impact Analysis:

California Emissions Estimator Model (CalEEMod) Employed to Estimate GHG Emissions

CEQA Guidelines 15064.4 (b) (1) states that a Lead Agency may employ a model or methodology of its choice to quantify greenhouse gas emissions associated with a project. The SCAQMD-approved California Emissions Estimator Model (CalEEMod, Model) is accepted by the Lead Agency for modeling of greenhouse gas (GHG) emissions, and was employed in the analysis of Project GHG emissions impacts. CalEEMod calculates air pollutant/GHG emissions from direct and indirect sources, and quantifies pollutant/GHG emissions reductions achieved from mitigation measures. The Model includes and evaluates GHG emissions from the following source categories: construction, area, energy, mobile, waste, water. Considerations applicable to each of these categories are addressed briefly in the following discussions.

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Construction-Source GHG Emissions

Project construction activities would generate the GHG emissions of CO_2 and CH_4. Construction-source GHG emissions are quantified and amortized over the life of the Project. To this end, and consistent with SCAQMD-recommended methodology, greenhouse gas emissions generated by Project construction activities were totaled and then divided by 30, reflecting an assumed 30-year Project life.

Operational-Source GHG Emissions

As described below, Project operational GHG emissions sources would include: area sources, on-site equipment operations; building energy use; water supply, treatment and distribution (water use); solid waste management; and mobile-sources (vehicular) energy consumption.

Area Sources

Area Sources (generalized activities associated with landscape and building maintenance) would generate GHG emissions over the life of the Project.

On-site Equipment Operations

Industrial warehouse uses such as those that would be implemented under the Project typically require use of cargo handling equipment for on-site movement of containers and chassis. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks typically have a horsepower (hp) range of approximately 175 hp to 200 hp. SCAQMD information indicates that high-cube warehouse projects typically employ 3.6 yard trucks per million square feet of building space. For the Project, on-site modeled operational equipment assumes two (2) yard tractors operating at 4 hours/day, 365 days/year. Other assumed on-site operational equipment supporting the Project industrial land uses would include two 89-hp yard forklifts, operating 4 hours/day, 365 days/year. All on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) would be

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powered by non-diesel fueled engines and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

Building Energy Use

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod default parameters were employed in estimating GHG emissions generated by building energy use.

Water Supply, Treatment and Distribution (Water Use)

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water is determined by the volume of water used, as well as the sources of the water. Unless otherwise noted, CalEEMod default parameters were employed in estimating GHG emissions generated by water supply, treatment and distribution activities and processes.

Solid Waste Management

Commercial land uses will result in the generation and disposal of solid waste. A large percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. Unless otherwise noted, CalEEMod default parameters were employed in estimating GHG emissions generated by solid waste management activities and processes.

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Mobile-Source Emissions

GHG emissions would also be generated by Project-related mobile sources. These mobile-source emissions would result from daily operation of motor vehicles by patrons and employees accessing the Project site. Project mobile-source emissions are dependent on overall daily vehicle trip generation. Trip characteristics available from the Project Traffic Impact Analysis (EIR Appendix B) were utilized in this analysis. Please refer also to the discussion presented at Project GHG Analysis Section 3.6.3, *Mobile Source Emissions*.

Project GHG Emissions Summary

Project GHG Emissions are Potentially Significant in Context of the Lead Agency Threshold

Project GHG emissions would total an estimated 12,154.98 MTCO2e/year as summarized at Table 4.3-4. Project GHG emissions would therefore exceed the 10,000 MTCO2e/year GHG emissions threshold employed by the City of Moreno Valley. The 10,000 MTCO2e/year GHG emissions threshold employed by the City of Moreno Valley is intended to reduce GHG emissions so as to minimize or preclude significant environmental impacts. Project exceedance of the City's GHG emissions threshold would therefore *result in levels of greenhouse gas emissions that may either directly or indirectly have a significant impact on the environment. This is a potentially significant cumulative impact.*

Level of Significance: Potentially Significant.

Table 4.3-4
Project GHG Emissions Summary

Emission Source	Emissions (metric tons per year)			
	CO_2	CH_4	N_2O	Total CO_2E
Annual construction-related emissions amortized over 30 years	45.02	6.67E-03	--	45.16
High-Cube				
Area	0.02	4.00E-05	--	0.02

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Table 4.3-4
Project GHG Emissions Summary

Emission Source	Emissions (metric tons per year)			
	CO_2	CH_4	N_2O	Total CO_2E
Energy	2,297.67	0.11	0.03	262.43
Mobile Sources (Trucks)	6,252.59	0.05	--	6,253.70
Mobile Sources (Passenger Cars)	616.63	0.03	--	617.17
On-site Emissions	105.33	0.03		106.02
Waste	68.14	4.03	--	152.70
Water Usage	208.38	2.16	0.05	270.27
Manufacturing				
Area	4.05E-03	1.00E-05	--	4.28E-03
Energy	362.73	0.01	5.29E-03	364.70
Mobile Sources (Trucks)	3,598.15	0.03	0.02	3,598.73
Mobile Sources (Passenger Cars)	346.85	0.01	--	347.16
Waste	22.47	1.33	--	50.35
Water Usage	67.22	0.68	0.02	86.57
Total CO_2E (All Sources)	**12,154.98**			

Source: *Indian Street Commerce Center Greenhouse Gas Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

Mitigation Measures: EIR Section 3.0, *Project Description*, 3.4.10, *Energy Efficiency/Sustainability* (excerpted below) summarizes features and attributes that would act to reduce Project GHG emissions.

> **3.4.10 Energy Efficiency/Sustainability**
>
> Energy-saving and sustainable design features and operational programs would be incorporated into all facilities developed pursuant to the Project. Notably, the Project in total would provide sustainable design features necessary to achieve a "Certified" rating under the United States Green Building Council's Leadership in Energy & Environmental Design (LEED) programs. The Project also incorporates and expresses the following design features and attributes promoting energy efficiency and sustainability.

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- The Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provider that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City.

- All on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines.

- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:

  - Sidewalks along the Project site's Indian Street frontage would be constructed as part of the Project, and would connect to existing and planned sidewalks to the north and south of the Project site. Facilitating pedestrian access encourages people to walk instead of drive. The Project would not impose barriers to pedestrian access and interconnectivity.

  - Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery vendor truck trips.

- To reduce water demands and associated energy use, development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water

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Conservation Strategy).[4] Development proposals within the Project site would also be required to implement the following:

- Landscaping palette emphasizing drought tolerant plants consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

- Use of water-efficient irrigation techniques consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

- U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and other plumbing fixtures.

Additionally, the Project in total would surpass, by a minimum of 5%, incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards).

The above design features and operational programs would act to generally reduce Project GHG emissions from area sources, energy sources, and other on-site emissions sources which combined, account for approximately 11 percent of the Project total GHG emissions.

The remaining approximately 89 percent of Project GHG emissions are attributable to mobile sources. Neither the Project Applicant nor the Lead Agency can substantively or materially affect reductions in Project mobile-source GHG emissions. Mobile source

[4] Reduction of 20% indoor water usage is consistent with the current CalGreen Code performance standards for residential and non-residential land uses. Per CalGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

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emissions sources are regulated by CARB and USEPA. As summarized at EIR Section 4.2, *Air Quality*, 4.2.5, *Regional Air Quality Trends*, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions (including attendant GHG Emissions) have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve. Future CARB and USEPA actions could be expected to have a positive effect on Project-related vehicular-source emissions, resulting in incremental reductions in coincident vehicular-source GHG emissions when compared to GHG emissions estimates presented here. No further feasible measures are available that would substantively mitigate the Project's operational-source GHG emissions.[5]

Level of Significance After Mitigation: ***Significant and Unavoidable.***

GHG Emissions are Potentially Significant in Context of CARB AB32 Scoping Plan Emissions Reductions Targets

To further evaluate the potential significance of Project GHG emissions, GHG emissions that would be generated pursuant to development of the Project are compared with GHG emissions targets established under the CARB AB32 Scoping Plan (Scoping Plan). The Scoping Plan provides for a 28.5% reduction in statewide and local GHG emissions by the year 2020, when compared to projected GHG emissions that would result from a continuing year 2005 "Business As Usual" (BAU) Scenario.

As indicated at Table 4.3-5, Project GHG emissions would be reduced by approximately 23.08% when compared to the 2005 BAU scenario; and would not achieve the 28.5% GHG emissions reduction targets established under the Scoping Plan. The GHG emissions reductions targets established under the Scoping Plan are intended to reduce

[5] It is noted further, that in developing the 10,000 MTCO2e/year significance threshold for industrial uses, SCAQMD specifically excluded GHG emissions from mobile sources. If this same protocol was employed here rather than the conservative approach taken, Project GHG emissions would total less than 1,400 MTCO2e/year; substantively less than the 10,000 MTCO2e/year significance threshold employed by SCAQMD.

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GHG emissions so as to minimize or preclude significant environmental impacts. Project inconsistency with the Scoping Plan GHG emissions reduction targets would therefore result in levels of greenhouse gas emissions that may either directly or indirectly have a significant impact on the environment. This is a potentially significant cumulative impact.

Table 4.3-5
Comparison of 2005 BAU Scenario and Project GHG Emissions

Emission Source	CO2e Emissions Levels by Year (Metric Tons Per Year)	
	2005 BAU	2020 Project
Construction Source Emissions(amortized over 30 years)	45.16	45.16
Area	0.02	0.02
Energy Use	870.08	587.56
Mobile Sources	13,193.19	10,237.08
On-Site Emissions	123.07	102.36
Waste	203.05	203.05
Water Usage	514.06	323.37
Total	14,948.63	11,498.60
Project GHG Emissions Reduction over BAU	**23.08%**	
CARB GHG Reduction Target	**28.5%**	
Consistent with CARB GHG Emissions Reduction Target	**NO**	

Source: *Indian Street Commerce Center Greenhouse Gas Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

Level of Significance: Potentially Significant.

Mitigation Measures: Please refer to previous discussion of GHG emissions reduction attributes and programs incorporated in the Project. No further feasible measures are available that would substantively mitigate the Project's operational-source GHG emissions.

Level of Significance After Mitigation: ***Significant and Unavoidable.***

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Potential Impact: ***Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.***

As substantiated in the preceding discussions, the Project would conflict with attainment of GHG emissions reductions identified in the Scoping Plan. Further GHG emissions generated by the Project would exceed GHG emissions significance thresholds established by the City of Moreno Valley.

Based on the preceding, the Project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. This is a potentially significant impact.

Level of Significance: Potentially Significant.

Mitigation Measures: Please refer to previous discussion of GHG emissions reduction attributes and programs incorporated in the Project. No further feasible measures are available that would substantively mitigate the Project's operational-source GHG emissions.

Level of Significance After Mitigation: ***Significant and Unavoidable.***

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4.4 NOISE

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4.4 NOISE

Abstract

This Section assesses whether the Project would substantially increase ambient noise levels, or expose land uses to noise, groundborne noise, or groundborne vibration levels exceeding established standards. In this regard, potential impacts considered within this Section include:

- *Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*
- *Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels;*
- *A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project;*
- *A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project; or*
- *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the Project area to excessive noise levels.*

As presented in the following analyses, all potential noise impacts of the Project are determined to be less-than-significant, or can be mitigated to levels that are less-than-significant.

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4.4.1 INTRODUCTION

This Section presents the noise setting, methodology, standards of significance, and potential noise impacts associated with the Project. Where impacts are determined to be potentially significant, mitigation measures are proposed to avoid or reduce the severity of impacts. The information presented herein has been summarized from the *Indian Street Commerce Center, Noise Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) June 23, 2016 (Noise Impact Analysis). The Noise Impact Analysis in its entirety is presented at EIR Appendix E.

4.4.2 SETTING

Following are discussions of noise fundamentals applicable to the Project, together with assessments of existing ambient noise levels and noise sources in the Project vicinity.

4.4.2.1 Fundamentals of Noise

Noise levels are measured on a logarithmic scale in decibels which are then weighted and added over a 24-hour period to reflect not only the magnitude of the sound, but also its duration, frequency, and time of occurrence. In this manner, various acoustical scales and units of measurement have been developed, including: equivalent sound levels (Leq), day-night average sound levels (Ldn) and community noise equivalent levels (CNEL).

"A-weighted" decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against the very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. The decibel scale has a value of 0.0 dBA at the threshold of hearing and 120 dBA at the threshold of pain. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. Thus, a 1.0 decibel increase is just audible, whereas a 10 decibel increase means the sound is perceived as being twice as loud as before.

Examples of the decibel level of various noise sources are provided in the following Figure 4.4-1.

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TYPICAL NOISE LEVELS AND THEIR SUBJECTIVE LOUDNESS AND EFFECTS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

SOURCE: NOISE TECHNICAL SUPPLEMENT BY CALTRANS

Source: Urban Crossroads, Inc.

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Figure 4.4-1
Typical Noise Levels

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Noise Rating Schemes

Equivalent sound levels are not measured directly but rather, are calculated from sound pressure levels typically measured in dBA. The equivalent sound level (Leq) is the constant level that, over a given time period, transmits the same amount of acoustic energy as the actual time-varying sound. Equivalent sound levels are the basis for both the Ldn and CNEL scales.

Day-night average sound levels (Ldn) are a measure of the cumulative noise exposure of the community. The Ldn value results from a summation of hourly Leqs over a 24-hour time period with an increased weighting factor applied to the nighttime period between 10:00 p.m. and 7:00 a.m. This noise rating scheme takes into account those subjectively more annoying noise events which occur during normal sleep hours.

Community noise equivalent levels (CNEL) also carry a weighting penalty for noise that occurs during nighttime hours. In addition, CNEL levels include a penalty for noise events that occur during the evening hours between 10:00 p.m. and 7:00 a.m. Because of the weighting factors applied, CNEL values at a given location will always be larger than Ldn values, which in turn will exceed Leq values. However, CNEL values are typically within one decibel of the Ldn value.

Sound Propagation

For a "line source" of noise such as a heavily traveled roadway, the noise level drops off by a nominal value of 3.0 decibels for each doubling of distance between the noise source and the noise receptor. The nominal value of 3.0 dBA with doubling applies to sound propagation from a line source: (1) over the top of a barrier greater than 3 meters in height; or (2) where there is a clear unobstructed view of the highway, the ground is hard, no intervening structures exist and the line-of-sight between the noise source and receptor averages more than three meters above the ground.

Notwithstanding, environmental factors such as wind conditions, temperature gradients, characteristics of the ground (hard or soft) and the air (relative humidity), and the presence of vegetation combine to typically increase the attenuation achieved outside laboratory conditions to approximately 4.5 decibels per doubling of distance. The increase in noise

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attenuation in exterior environments is particularly true: (1) for freeways with an elevated or depressed profile or exhibiting expanses of intervening buildings or topography; (2) where the view of a roadway is interrupted by isolated buildings, clumps of bushes, scattered trees; (3) when the intervening ground is soft or covered with vegetation; or (4) where the source or receptor is located more than three meters above the ground.

In an area which is relatively flat and free of barriers, the sound level resulting from a single "point source" of noise drops by six decibels for each doubling of distance or 20 decibels for each factor of ten in distance. This applies to fixed noise sources and mobile noise sources which are temporarily stationary, such as an idling truck or other heavy duty equipment operating within a confined area (such as industrial processes or construction).

Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by 10 to 15 dBA. Noise barriers are most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the view of the noise source.

4.4.2.2 Factors Affecting Motor Vehicle Noise

According to the Highway Traffic Noise Analysis and Abatement Policy and Guidance, provided by the Federal Highway Administration (FHWA), the level of traffic noise depends on three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. A doubling of the traffic volume, assuming that the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mix on a given roadway may also have an effect on community noise levels. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise levels will increase. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway.

To account for the ground-effect attenuation (absorption), two types of site conditions are commonly used in traffic noise models, soft site and hard site conditions. Soft site

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conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. A drop-off rate of 4.5 dBA per doubling of distance is typically observed over soft ground with landscaping, as compared with a 3.0 dBA drop-off rate over hard ground such as asphalt, concrete, stone and very hard packed earth. The Project Noise Study indicates that generally, soft site conditions better reflect predicted noise levels within the Study Area. Related, California Department of Transportation (Caltrans) research has shown that the use of soft site conditions is more appropriate for the application of the FHWA traffic noise prediction model used in this analysis.

4.4.2.3 Community Responses to Noise

Approximately ten percent of the population has a very low tolerance for noise, and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another 25 percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment.

Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels. An increase or decrease of 1.0 dBA cannot be perceived except in carefully controlled laboratory experiments. A 3.0 dBA increase may be perceptible outside of the laboratory. An increase of 5.0 dBA is often necessary before any noticeable change in community response (i.e., complaints) would be expected.

Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon each individual's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

- Fear associated with noise producing activities;
- Noise receptor's perception that they are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity;
- Receptor's belief that the noise source can be controlled.

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Recent studies have shown that changes in long-term noise levels are noticeable, and are responded to by people. For example, about ten percent of the people exposed to traffic noise of 60 Ldn will report being highly annoyed with the noise, and each increase of one Ldn is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 Ldn or aircraft noise exceeds 55 Ldn, people begin complaining. Group or legal actions to stop the noise should be expected to begin at traffic noise levels near 70 Ldn and aircraft noise levels near 65 Ldn.

4.4.2.4 Land Use Compatibility With Noise

Some land uses are less tolerant of noise than others. For example, schools, hospitals, churches and residences are more sensitive to noise intrusion than are commercial or industrial activities. As ambient noise levels affect the perceived amenity or liveability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process.

4.4.2.5 Sensitive Receptors

Land uses classified as noise-sensitive by the State of California include: schools, hospitals, rest homes, long-term care centers, and mental care facilities. Some jurisdictions also consider day care centers, single-family dwellings, mobile home parks, churches, libraries, and recreation areas to be noise-sensitive. Moderately noise-sensitive land uses typically include: multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs.

Land uses which are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, natural open space, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

The closest sensitive receptors in the vicinity of the Project site are scattered residential uses located a minimum of one-half mile from the site.

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4.4.2.6 Current Noise Exposure

To assess existing noise levels in the Project vicinity, four long-term 24-hour measurements were taken at locations throughout the Study Area. These locations are illustrated at Figure 4.4-2, and are representative of sites that may be affected by Project-generated noise. Measurements were taken at the nearest noise sensitive uses, to assess the existing ambient hourly noise levels surrounding the Project site. Noise measurement locations included the following:

- Location L1 represents the noise levels on Nandina Avenue west of Perris Boulevard and north of existing residential homes.

- Location L2 represents the noise levels at the Project site on Indian Avenue north of the existing iHerb, Inc. distribution building.

- Location L3 represents the noise levels at the southwest corner of Nevada Avenue and Harley Knox Boulevard, north of existing residential homes, near the MARB/IPA runway.

- Located southwest of the Project site on Webster Avenue, location L4 represents the noise levels near existing residential homes.

The results of the ambient noise level measurements are presented at Table 4.4-1, below.

Table 4.4-1
24 Hour Ambient Noise Level Measurements

Location	Distance To Project Boundary	Energy Average Hourly Noise Level (dBA Leq)		CNEL
		Daytime	Nighttime	
L1	2,675'	64.0	62.9	69.5
L2	0'	62.8	63.7	70.2
L3	2,920'	57.1	56.5	63.3
L4	3,285'	57.4	57.2	63.3

Source: *Indian Street Commerce Center, Noise Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) June 23, 2016.
Daytime = 8:00 a.m. to 10:00 p.m.; Nighttime = 10:01 p.m. to 7:59 a.m.

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Source: Urban Crossroads, Inc.

Figure 4.4-2
Ambient Noise Measurement Locations

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The background ambient noise levels in the Project study area are dominated by the transportation-related noise associated with the arterial roadway network and the MARB/IPA airport. This includes the auto, heavy truck, and aircraft flyover activities near the noise level measurement locations.

4.4.3 EXISTING POLICIES AND REGULATIONS

To limit population exposure to physically and/or psychologically damaging, as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains fairly constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

4.4.3.1 State of California

Noise Requirements

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards and provides noise/land use compatibility guidance. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared according to guidelines adopted by the Governor's Office of Planning and Research. The purpose of the Noise Element is to "limit the exposure of the community to excessive noise levels." In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

California Green Building Standards Code

The 2014 State of California's Green Building Standards Code contains mandatory measures for non-residential building construction in Section 5.506 on Environmental Comfort. These noise standards are applied to new construction in California for the

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purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within an airport or freeway 65 dBA CNEL noise contour, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies must be at least 50. For those developments in areas where noise contours are not readily available and the noise level exceeds 65 dBA Leq for any hour of operation, a wall and roof-ceiling combined STC rating of 45, and exterior windows with a minimum STC rating of 40 are required (Section 5.507.4.1).

4.4.3.2 City Transportation-Source Noise Standards

The Indian Street Commerce Center site is located in the City of Moreno Valley, however, the off-site transportation noise contributions associated with the traffic generated by the Project may potentially affect sensitive land uses along roadways in the City of Perris. Therefore, the following transportation noise standards for each jurisdiction are used in this analysis to evaluate the potential off-site traffic noise impacts as a result of the Project.

City of Moreno Valley General Plan Safety Element

The City Noise Element typically provides the standards for land use compatibility for community noise exposure. However, the City of Moreno Valley General Plan does not include a noise element or specific transportation-related noise standards. Rather, noise is considered in the Environmental Safety section of the General Plan Safety Element. While the General Plan provides background and noise fundamentals, it does not identify criteria to assess the impacts associated with off-site transportation-related noise impacts. Therefore, for the purpose of this analysis, the transportation noise criteria are derived from standards contained in the California Office of Planning and Research (OPR) General Plan Guidelines. The OPR land use/noise compatibility guidelines are used by many California cities and counties and specify the maximum noise levels allowable for new developments impacted by transportation noise sources.

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The OPR Guidelines present noise compatibility criteria for industrial land uses such as the Project. Per the Guidelines, when the unmitigated exterior noise levels approach 70 dBA CNEL industrial land uses are considered normally acceptable. With exterior noise levels ranging from 70 to 80 dBA CNEL, industrial land uses are considered conditionally acceptable, and with exterior noise levels greater than 80 dBA CNEL, they are considered normally unacceptable. For normally unacceptable land use, new construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. The Project does not propose outdoor living areas requiring exterior noise mitigation as outlined in the OPR Guidelines, and therefore, only the interior noise levels experienced by employees at the Project site are evaluated against the appropriate noise level standards.

The purpose of the transportation noise criteria is to protect, create, and maintain an environment free from noise and vibration that may jeopardize the health or welfare of sensitive receptors, or degrade quality of life. City General Policies (City of Moreno Valley General Plan, pp.9-31, 9-32) act to ensure that when exterior noise levels exceed 65 dBA CNEL at sensitive receptors, mitigation is provided to confirm that interior noise levels of 45 dBA CNEL are maintained. General Plan Policies in this regard are consistent with, and support, the California Building Code interior noise standards.

City of Perris General Plan Noise Element

The City of Perris has adopted a Noise Element of the General Plan to control and abate environmental noise, and to protect the citizens of Perris from excessive exposure to noise. The Noise Element specifies the maximum allowable unmitigated exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. In addition, the Noise Element identifies the following noise policies and implementation measures designed to protect, create, and maintain an environment free from noise that may jeopardize the health or welfare of sensitive receptors, or degrade quality of life.

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I.A.1: All new development proposals will be evaluated with respect to the State Noise/Land Use Compatibility Criteria. Placement of noise sensitive uses will be discouraged within any area exposed to exterior noise levels that fall into the "Normally Unacceptable" range and prohibited within areas exposed to "Clearly Unacceptable" noise ranges.

I.A.2: Site plans for new residential development near roadway and train noise sources shall incorporate increased building setbacks and/or provide for sufficient noise barriers for usable exterior yard areas so that the noise exposure in those areas does not exceed the levels considered "Normally Acceptable" in The State of California Noise/Land Use Compatibility Criteria.

I.A.3: Acoustical studies shall be prepared for all new development proposals involving noise sensitive land uses, as defined in Section 16.22.020J of the Perris Municipal Code, where such projects are adjacent to roadways and within existing or projected roadway CNEL levels of 60 dBA or greater.

I.A.4: As part of any approvals of noise sensitive projects where reduction of exterior noise to 65 dBA is not reasonably feasible, the City will require the developer to issue disclosure statements to be identified on all real estate transfers associated with the affected property that identifies regular exposure to roadway noise.

I.A.5: No new residential dwellings shall be placed in areas with mitigated or unmitigated exterior noise levels that exceed 76 dBA CNEL.

The noise standards identified in the City of Perris General Plan are guidelines to evaluate the acceptability of the transportation-related noise level impacts. These standards are based on the guidelines set forth by the OPR and are used to assess the long-term traffic noise impacts on land uses. According to the City's Land Use Compatibility for Community Noise Exposure (Exhibit N-1), noise-sensitive land uses such as single-family residences are normally acceptable with exterior noise levels below 60 dBA CNEL and conditionally acceptable with noise levels below 65 dBA CNEL.

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4.4.3.3 City Stationary/Area-Source Noise Standards

To analyze noise impacts originating from a designated fixed location or private property such as the Indian Street Commerce Center Project, stationary-source (operational) noise such as the expected idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods are typically evaluated against standards established under a City's Municipal Code.

Although the Project site is located within the City of Moreno Valley, noise-sensitive receivers potentially impacted by stationary/area-source noise activities are also located in the City of Perris. Therefore, to accurately describe the potential Project-related operational noise level contributions, this analysis presents the appropriate standards for each jurisdiction.

City of Moreno Valley Stationary/Area-Source Noise Standards

The City of Moreno Valley Municipal Code, Chapter 11.80, *Noise Regulation*, provides performance standards and noise control guidelines for determining and mitigating non-transportation or stationary-source noise impacts from operations at private properties. The City of Moreno Valley Municipal Code defines Maximum Sound Levels (in dBA) for Residential and Commercial land uses in Table 11.80.030-2. As defined by the Municipal Code, Section 11.80.020 *Definitions*, Commercial land use means all uses of land not otherwise classified as residential, and Residential land use means all uses of land primarily for dwelling units, as well as hospitals, schools, colleges and universities, and places of religious assembly. For the purpose of this analysis, the Indian Street Commerce Center Project is considered Commercial land use since it is not classified as residential. Based on this standard, the operational noise level limits for commercial land use of 65 dBA Leq during the daytime (8:00 a.m. to 10:00 p.m.) hours and 60 dBA Leq during the nighttime (10:01 p.m. to 7:59 a.m.) hours shall apply to the operational noise from the Project.

Further, Section 11.80.030 (C), *Prohibited Acts, Nonimpulsive Sound Decibel Limits*, states: "No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2 when measured at a distance of two hundred (200) feet or more from the real

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property line of the source of the sound, if the sound occurs on a privately owned property…" Therefore, at a distance of 200 feet from the property line, the Project's operational noise levels shall not exceed the 65 dBA Leq daytime and 60 dBA Leq nighttime noise level standards for commercial land uses.

City of Perris Stationary/Area-Source Noise Standards

The City of Perris Municipal Code, Chapter 7.34, *Noise Control*, Section 7.34.040, establishes the permissible noise level that may intrude into a neighbor's property from the use of sound amplifying equipment. The Municipal Code exterior noise level criteria for residential properties affected by stationary/area noise sources is included in Section 7.34.050, *General Prohibition*, which states that the Section 7.34.040 sound amplifying equipment noise standards shall apply. Therefore, for residential properties, the exterior noise level shall not exceed 80 dBA Leq during daytime hours (7:00 a.m. to 10:00 p.m.) and shall not exceed 60 dBA Leq during the nighttime hours (10:00 p.m. to 7:00 a.m.).

4.4.3.4 City Construction-Source Noise Standards

To analyze noise impacts originating from the construction of the Indian Street Commerce Center Project, noise from construction activities are typically limited to the hours of operation established under a City's Municipal Code. To accurately describe the potential Project-related construction noise level contributions to the existing noise environment, this analysis presents the appropriate construction noise standards for each jurisdiction adjacent to the Project site.

City of Moreno Valley Construction-Source Noise Standards

The City of Moreno Valley Municipal Code noise standards for construction are described below to determine the potential noise impacts at nearby sensitive receiver locations. As a subset of its stationary-source noise regulations, the City Municipal Code establishes additional restrictions on construction-source noise. More specifically, Municipal Code Section 11.80.030 (D) (7), *Construction and Demolition*, provides the following:

> "No person shall operate or cause operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound

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there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city manager or designee."

A noise disturbance, as defined by the City of Moreno Valley Municipal Code, means any sound which:

- Disturbs a reasonable person of normal sensitivities;
- Exceeds the sound level limits set forth in this chapter [Table 11.80.030-2];
- Is plainly audible as defined in this section. Where no specific distance is set forth for the determination of audibility, references to noise disturbance shall be deemed to mean plainly audible at a distance of two hundred (200) feet from the real property line of the source of the sound, if the sound occurs on a privately owned property, or from the source of the sound, if the sound occurs on public right, public space or other publicly owned property.

Therefore, based on the Section 11.80.030 (D) construction regulations, a construction-related noise disturbance occurs when the noise levels exceed the commercial land use criteria of 65 dBA Leq during the daytime hours and 60 dBA Leq during the nighttime hours at a distance of 200 feet from the property line of the source (Project site). In addition, grading operations shall be limited to the hours identified in Section 8.21.050 (O) of 7:00 a.m. to 6:00 p.m., Monday through Friday, and 8:00 a.m. to 4:00 p.m. on weekends and holidays or as approved by the City Engineer.

City of Perris Construction-Source Noise Standards

The City of Perris Municipal Code, Section 7.34.060, identifies the City's construction noise standards and permitted hours of construction activity. Since the Project site is located in the City of Moreno Valley, the City of Perris would not have jurisdictional control over permitted hours of Project construction. Notwithstanding, the City of Perris Municipal Code, Section 7.34.060, noise level standard of 80 dBA Leq at residential properties would apply to the noise-sensitive receiver locations located in the City of Perris.

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4.4.3.5 Vibration Standards

The City of Moreno Valley and the City of Perris have not identified or adopted specific vibration level standards. However, the United States Department of Transportation Federal Transit Administration (FTA) provides guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines allow 80 VdB for residential uses and buildings where people normally sleep.

Operational and construction activities can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generate little or no ground vibration. Large bulldozers and loaded trucks can cause perceptible vibration levels proximate receptors. The FTA guidelines of 80 VdB for sensitive land uses provide a substantiated basis for determining the relative significance of potential Project-related vibration impacts due to on-site operational and construction activities.

4.4.3.6 March Air Reserve Base/Inland Port Airport Land Use Compatibility

The March Air Reserve Base/Inland Port Airport (MARB/IPA) is located approximately one-half mile westerly of the Project site. The Riverside County Airport Land Use Compatibility Plan Policy Document (RC ALUCP) includes policies for determining the land use compatibility of the Project since it is located within 2 miles of an airport runway. Policy 4.1.5 of the RC ALUCP requires that land uses, such as the proposed industrial land use of the Project site, demonstrate compatibility with determined acceptable noise levels. The RC ALUCP indicates that clearly compatible industrial land uses experience exterior noise levels below 65 dBA CNEL. For clearly compatible noise levels, the activities associated with the specified land use can be carried out with essentially no interference from the noise exposure. Normally acceptable noise levels for industrial land uses range from 65 to 70 dBA CNEL, and noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.

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4.4.4 STANDARDS OF SIGNIFICANCE

Based on the noise criteria presented above, and direction provided within the *CEQA Guidelines* as implemented by the City of Moreno Valley, Project noise impacts would be considered potentially significant if the Project is determined to result in or cause the following conditions:

- Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

- A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project;

- A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project;

- Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels;

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the Project area to excessive noise levels; or

- For a project within the vicinity of a private airstrip, expose people residing or working in the Project area to excessive noise levels.

In evaluating the above CEQA concerns, the discussion of potential noise impacts (subsequent Section 4.4.5) is organized to reflect categories or types of noise sources, including construction-source noise; vehicular-source noise; operational/area-source noise; vibration; and exposure to airport/aircraft noise.

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Summarizing the discussions presented previously at Section 4.4.3, Table 4.4-2 presents applicable noise impact thresholds for each of the five categories presented above. For ease of reference, thresholds from both the City of Moreno Valley and the City of Perris are presented. Project-related noise impacts would be considered excessive and/or substantial if any of the thresholds presented below are exceeded.

Table 4.4-2
Summary of Significance Thresholds[1]

Analysis Scenario	Receptor Land Use	City	Ambient Condition/ Exposure Scenario	Significance Criteria	
				Daytime	Nighttime
Construction-Source	Noise-Sensitive	Moreno Valley	General Activity: 7:00 a.m. to 8:00 p.m. on any day. Grading is limited to 7:00 a.m. to 6:00 p.m. Monday to Friday; 8:00 a.m. to 4:00 p.m. on weekends and holidays.		
			At 200' from the property line of the source	65 dBA Leq	n/a
		Perris	At residential land use	80 dBA Leq	n/a
Vehicular-Source	Noise-Sensitive	All	if ambient is < 65 dBA	Project plus ambient is > 65 dBA; and a ≥ 3 dBA Project increase	
			if ambient is > 65 dBA	≥ 1.5 dBA Project increase	
	Non-Noise-Sensitive		if ambient is < 70 dBA	Project plus ambient is > 70 dBA; and a ≥ 3 dBA Project increase	
Operational/ Area-Source	Noise-Sensitive	Moreno Valley	At 200' from the property line of the source	65 dBA Leq	60 dBA Leq
		Perris	At residential land use	80 dBA Leq	60 dBA Leq
		All	if ambient is ≤ 65 dBA	Project plus ambient is > 65 dBA; and a ≥ 3 dBA Project increase	
Vibration	Noise-Sensitive	All	Operational & Construction	80 VdB	80 VdB
Aircraft-Related	All	All	Proposed land use must be compatible with the criteria presented within the applicable ALCUP (i.e., considered a compatible land use for the noise contour in which the project site is located).		

Source: *Indian Street Commerce Center, Noise Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) June 23, 2016.
[1] Please refer to Noise Impact Analysis Section 4.2 for further detail regarding applicable thresholds.

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4.4.5 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.4.5.1 Introduction

The following discussions focus on areas where it has been determined that the Project may result in potentially significant noise/vibration impacts, based on the analysis presented within this Section and included within the EIR Initial Study (EIR Appendix A). Please refer also to Initial Study Checklist Item XIII. *Noise*.

Of the CEQA threshold considerations identified above at Section 4.4.4, and as substantiated in the Initial Study (EIR Appendix A), the Project's potential impacts under the following topic are determined to have no impact and are not further substantively discussed here:

- For a project within the vicinity of a private airstrip, expose people residing or working in the Project area to excessive noise levels.

All other CEQA topics concerning the Project's potential impacts to noise are discussed below. Please refer also to Draft EIR Appendix A, Initial Study Checklist Item XIII., *Noise*.

4.4.5.2 Impact Statements

Following is an analysis of potential noise impacts that are expected to occur as a result of the Project. Noise levels will change both on-site and off-site if the Project is approved and implemented. The discussion of potential noise impacts is organized to reflect categories or types of noise sources, including:

- Construction-Source Noise;
- Vehicular-Source Noise;
- Operational/Area-Source Noise;
- Vibration; and
- Exposure to Airport/Aircraft Noise.

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For each topical discussion, potential impacts are evaluated under applicable criteria established above at Section 4.4.4, *Standards of Significance*.

CONSTRUCTION-SOURCE NOISE

As previously presented, the following thresholds were used in analyzing potential construction-source noise impacts of the Project.

Table 4.4-3
Construction-Source Noise Thresholds

Analysis Scenario	Receptor Land Use	City	Ambient Condition/ Exposure Scenario	Significance Criteria	
				Daytime	Nighttime
Construction-Source	Noise-Sensitive	Moreno Valley	General Activity: 7:00 a.m. to 8:00 p.m. on any day. Grading is limited to 7:00 a.m. to 6:00 p.m. Monday to Friday; 8:00 a.m. to 4:00 p.m. on weekends and holidays.		
			At 200' from the property line of the source	65 dBA Leq	n/a
		Perris	At residential land use	80 dBA Leq	n/a

Potential Impact: ***Construction activities and associated noise would result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.***

Impact Analysis: The construction noise analysis was prepared using reference noise level measurements taken to describe the typical construction activity noise levels for each stage of Project construction. The construction reference noise level measurements, provided at Table 10-1 of the Noise Impact Analysis, represent a list of typical construction activity noise levels. Noise levels generated by heavy construction equipment can range from approximately 56 dBA to in excess of 68 dBA when measured at 200 feet. However, these noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 68 dBA measured at 200 feet from the noise source to the receiver would be reduced to 62 dBA at 400 feet from the source to the receiver, and would be further reduced to 56 dBA at 800 feet from the source to the receiver.

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Construction activities within the Project site are anticipated to occur within five stages: site preparation, grading, building construction, paving, and architectural coating. To assess potential noise impacts associated with construction activities, five noise sensitive receptor locations were identified, as illustrated at Figure 4.4-3.

Based construction equipment reference noise levels and distance to the Project site, representative noise levels at the receptor locations have been developed, and are presented below.

Table 4.4-4
Construction Noise Levels

Receiver Location	Distance To Receiver	Construction Noise Levels (dBA Leq)					
		Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Peak
@200'	200'	67.5	67.5	67.2	59.6	56.1	67.5
R1	1,968'	47.7	47.7	47.4	39.7	36.3	47.7
R2	3,380'	43.0	43.0	42.7	35.0	31.6	43.0
R3	3,645'	42.3	42.3	42.0	34.3	30.9	42.3
R4	3,171'	43.5	43.5	43.2	35.6	32.1	43.5
R5	3,964'	41.6	41.6	41.3	33.6	30.2	41.6

Source: *Indian Street Commerce Center, Noise Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) June 23, 2016.

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Source: Urban Crossroads, Inc.

Figure 4.4-3
Noise Receiver Locations

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The unmitigated peak construction noise levels are expected to range from 56.1 to 67.5 dBA Leq at a distance of 200 feet from the Project site boundary. At this distance, Project construction noise may exceed the 65 dBA Leq daytime City of Moreno Valley Municipal Code standard. However, there are no sensitive receiver locations located within 200 feet of the Project site boundary. As shown at Table 4.4-4, the peak construction noise levels experienced at the nearest sensitive receiver locations (R1—R5) are expected to range from 41.6 to 47.7 dBA Leq and will not exceed the 65 dBA Leq daytime City of Moreno Valley Municipal Code standard or the 80 dBA Leq City of Perris Municipal Code standard for construction activity.

Level of Significance: Less-Than-Significant.

Potential Impact: ***Construction activities and associated noise would result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.***

Impact Analysis: Construction-source noise is not considered a source of permanent noise increases, and associated threshold questions are not germane.

Level of Significance: Less-Than-Significant.

Potential Impact: ***Construction activities and associated noise would result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.***

Impact Analysis: As indicated previously, construction-source noise levels would not exceed City standards. Please refer to Table 4.4-4.

Level of Significance: Less-Than-Significant.

VEHICULAR-SOURCE NOISE

As previously presented, the following thresholds were used in analyzing potential vehicle-source noise impacts of the Project.

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Table 4.4-5
Vehicular-Source Noise Thresholds

Analysis Scenario	Receptor Land Use	City	Ambient Condition/ Exposure Scenario	Significance Criteria	
				Daytime	Nighttime
Vehicular-Source	Noise-Sensitive	All	if ambient is < 65 dBA	Project plus ambient is > 65 dBA; and a ≥ 3 dBA Project increase	
			if ambient is > 65 dBA	≥ 1.5 dBA Project increase	
	Non-Noise-Sensitive		if ambient is < 70 dBA	Project plus ambient is > 70 dBA; and a ≥ 3 dBA Project increase	

Potential Impact: ***Vehicular source noise would result in exposure of persons to, or generation of, noise levels in excess of standards established in the City's General Plan or Noise Ordinance, or other applicable standards of other agencies.***

Impact Analysis: To assess impacts resulting from offsite Project-related vehicular-source noise, the Noise Impact Analysis developed noise contours based on roadway average daily trip (ADT) estimates, and trip generation and distribution as presented in *Indian Street Commerce Center Traffic Impact Analysis* (Project TIA, Draft EIR Appendix B). The Project TIA reflects and analyzes traffic generated under assumed maximum buildout conditions for the Project. Noise contours were developed for the following traffic scenarios:

- Existing Without / With Project: This scenario refers to the existing present-day noise conditions, without and with the proposed Project.

- Opening Year 2020 Without / With Project: This scenario refers to the background noise conditions at future Year 2020 without and with the proposed Project. This scenario corresponds to 2020 conditions, and includes all cumulative projects identified in the Traffic Impact Analysis.

Noise Impact Analysis Tables 7-1 through 7-4 present the noise contours developed for the above scenarios for all Study Area roadways. Please refer to EIR Appendix E.

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Based on the noise contours, Tables 4.4-6 and 4.4-7 present a comparison of noise conditions along Study Area roadways without and with development realized pursuant to the Project under the above-described scenarios.

Table 4.4-6
Existing Conditions
Traffic Noise Impacts Without and With Project

ID	Road	Segment	Adjacent Planned Land Use	CNEL at Adjacent Land Use (dBA)			Threshold Exceeded?
				No Project	With Project	Project Addition	
1	Indian St.	n/o Grove View Rd.	Business Park	78.9	78.9	0.0	No
2	Indian St.	s/o Grove View Rd.	Business Park	79.4	80.0	0.6	No
3	Indian St.	s/o Driveway 1	Business Park	79.0	79.6	0.6	No
4	Indian St.	n/o Harley Knox Bl.	Business Park	79.4	79.9	0.5	No
5	Nandina Av.	w/o Indian St.	Business Park	75.5	75.5	0.0	No
6	Nandina Av.	e/o Indian St.	Business Park	73.6	73.7	0.1	No
7	Harley Knox Bl.	w/o I-215 NB Ramps	Light Industrial	77.8	78.3	0.5	No
8	Harley Knox Bl.	e/o I-215 NB Ramps	Business Park	78.9	79.3	0.4	No
9	Harley Knox Bl.	w/o Patterson Av.	Light Industrial	78.9	79.3	0.4	No
10	Harley Knox Bl.	w/o Webster Av.	Light Industrial	78.6	79.0	0.4	No
11	Harley Knox Bl.	w/o Indian St.	Light Industrial	79.4	79.7	0.3	No
12	Harley Knox Bl.	e/o Indian St.	Business Park	75.4	75.5	0.1	No

Source: *Indian Street Commerce Center, Noise Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) June 23, 2016.

As shown above, under Existing Conditions, Project traffic would not cause or result in increased noise levels that would exceed the 65 dBA CNEL threshold condition; nor would Project traffic cause or result in increased noise levels of greater than 1.5 dBA CNEL when the without-Project condition already exceeds 65 dBA CNEL.

Table 4.4-7
Year 2020 Conditions
Traffic Noise Impacts Without and With Project

ID	Road	Segment	Adjacent Planned Land Use	CNEL at Adjacent Land Use (dBA)			Threshold Exceeded?
				No Project	With Project	Project Addition	
1	Indian St.	n/o Grove View Rd.	Business Park	83.0	83.0	0.0	No
2	Indian St.	s/o Grove View Rd.	Business Park	82.2	82.5	0.3	No

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Table 4.4-7
Year 2020 Conditions
Traffic Noise Impacts Without and With Project

ID	Road	Segment	Adjacent Planned Land Use	CNEL at Adjacent Land Use (dBA)			Threshold Exceeded?
				No Project	With Project	Project Addition	
3	Indian St.	s/o Driveway 1	Business Park	82.0	82.3	0.3	No
4	Indian St.	n/o Harley Knox Bl.	Business Park	81.8	82.1	0.3	No
5	Nandina Av.	w/o Indian St.	Business Park	76.7	76.7	0.0	No
6	Nandina Av.	e/o Indian St.	Business Park	75.7	75.8	0.1	No
7	Harley Knox Bl.	w/o I-215 NB Ramps	Light Industrial	80.4	80.7	0.3	No
8	Harley Knox Bl.	e/o I-215 NB Ramps	Business Park	81.6	81.8	0.2	No
9	Harley Knox Bl.	w/o Patterson Av.	Light Industrial	81.6	81.8	0.2	No
10	Harley Knox Bl.	w/o Webster Av.	Light Industrial	81.4	81.6	0.2	No
11	Harley Knox Bl.	w/o Indian St.	Light Industrial	81.8	82.0	0.2	No
12	Harley Knox Bl.	e/o Indian St.	Business Park	77.4	77.4	0.0	No

Source: *Indian Street Commerce Center, Noise Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) June 23, 2016.

As shown above, under Year 2020 Conditions, Project traffic would not cause or result in increased noise levels that would exceed the 65 dBA CNEL threshold condition; nor would Project traffic cause or result in increased noise levels of greater than 1.5 dBA CNEL when the without-Project condition already exceeds 65 dBA CNEL.

Level of Significance: Less-Than-Significant.

Potential Impact: ***Vehicular-source noise would result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.***

Impact Analysis: Vehicular-source noise is addressed as a permanent source of noise, rather than a temporary or periodic source of noise increases. As such, associated threshold questions are not germane.

Level of Significance: Less-Than-Significant.

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Potential Impact: ***Vehicular-source noise would result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.***

Impact Analysis: As discussed previously, Project traffic would not cause or result in increased noise levels that would exceed the City's 65 dBA CNEL threshold condition; nor would Project traffic cause or result in increased noise levels of greater than 1.5 dBA CNEL when the without-Project condition already exceeds 65 dBA CNEL. As such, vehicular-source noise would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Level of Significance: Less-Than-Significant.

OPERATIONAL/AREA-SOURCE NOISE

As previously presented, the following thresholds were used in analyzing potential operational/area-source noise impacts of the Project.

Table 4.4-8
Operational/Area-Source Noise Thresholds

Analysis Scenario	Receptor Land Use	City	Ambient Condition/ Exposure Scenario	Significance Criteria	
				Daytime	Nighttime
Operational/ Area-Source	Noise-Sensitive	Moreno Valley	At 200' from the property line of the source	65 dBA Leq	60 dBA Leq
		Perris	At residential land use	80 dBA Leq	60 dBA Leq
		All	if ambient is ≤ 65 dBA	Project plus ambient is > 65 dBA; and a ≥ 3 dBA Project increase	

Potential Impact: ***Project operational noise would result in exposure of persons to, or generation of, noise levels in excess of standards established in the City's General Plan or Noise Ordinance.***

Impact Analysis: The future tenants of the proposed Project are currently unknown. To present the potential worst-case noise conditions, this analysis assumes the Project would be operational 24 hours per day, seven days per week. Business operations would primarily be conducted within the enclosed building, with the exception of the loading and

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unloading of trucks at designated loading bays. The on-site Project-related noise sources are expected to include: roof-top HVAC equipment, idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods.

The Project's stationary/area-source noise levels were estimated based on reference noise level measurements of similar logistics warehouse buildings. Please refer to Section 9.3 of the Project Noise Impact Analysis, presented as Appendix E to this EIR, for a detailed description of the reference noise level sources and locations.

Using the reference noise levels, it is possible to estimate the operational source noise levels generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receptor locations. The operational noise level calculations account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. With geometric spreading, sound levels attenuate (or decrease) at a rate of 6 dB for each doubling of distance from a point source (idling trucks, delivery truck activities, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods). Proposed noise sources, and their relationship to vicinity sensitive receptors, are illustrated at Figure 4.4-4.

Operational noise levels generated by the Project and received at proximate receptors are summarized at Table 4.4-9, below.

Table 4.4-9
Operational Noise Levels Projections

Receiver Location	Project Noise (dBA Leq)	Distance From Source To Receiver	Attenuation (dBA Leq)		Noise Level At Receiver Locations (dBA Leq)
			Distance	Existing Noise Barriers	
R1	70.1	2,577'	-38.7	0.0	31.9
R2	70.1	3,461'	-41.2	0.0	29.3
R3	70.1	3,764'	-42.0	0.0	28.5
R4	70.1	3,333'	-40.9	0.0	29.6
R5	70.1	4,269'	-43.1	0.0	27.4

Source: *Indian Street Commerce Center, Noise Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) June 23, 2016.

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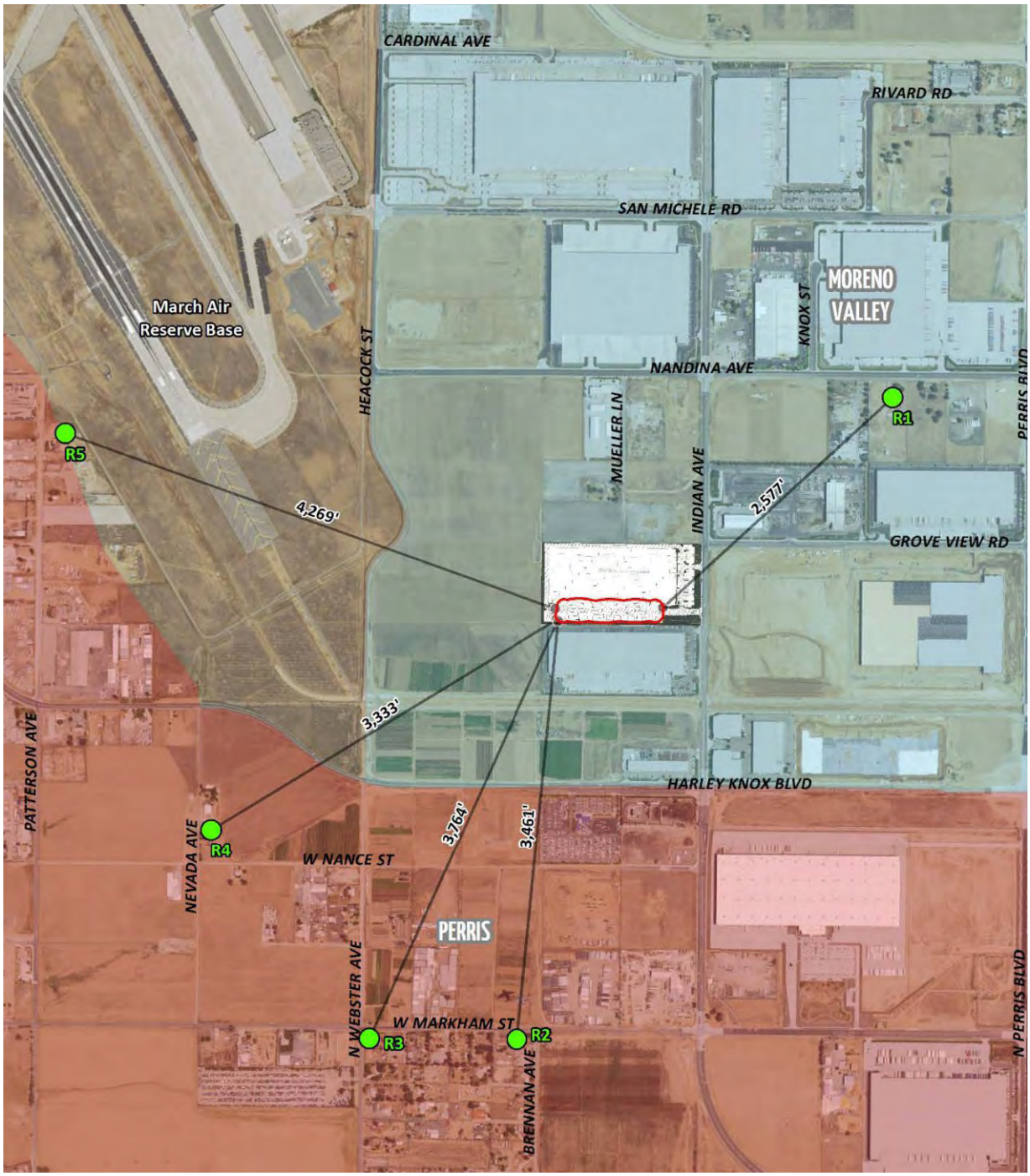

Source: Urban Crossroads, Inc.

Figure 4.4-4
Operational-Source Noise Locations

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Table 4.4-9 indicates that the hourly noise levels associated with the Project at the five sensitive receiver locations are expected to range from 27.0 to 31.4 dBA Leq. As such, the Project-related stationary/area-source noise levels will satisfy the City of Moreno Valley 65 dBA Leq daytime and 60 dBA Leq nighttime, as well as the City of Perris 80 dBA Leq daytime and 60 dBA Leq nighttime exterior noise level standards at the nearby sensitive receiver locations.

The Project-related noise level contribution is evaluated at each receiver location based on the magnitude of the Project-related increase on the ambient noise levels. To describe the Project operational noise level contributions, the Project operational noise levels were combined with the existing ambient noise level measurements at the sensitive receiver locations. The difference between the combined Project and ambient noise levels describe the Project noise level contributions. Noise levels that would be experienced at receiver locations when Project-source noise is added to ambient daytime and nighttime conditions are presented at Tables 4.4-10 and 4.4-11, respectively.

Table 4.4-10
Project Daytime Noise Level Contributions

Receiver Location	Total Project Operational Noise Level	Measurement Location	Reference Ambient Noise Levels	Combined Project and Ambient	Project Contribution	Threshold Exceeded?
R1	31.9	L1	64.0	64.0	0.0	No
R2	29.3	L4	57.4	57.4	0.0	No
R3	28.5	L4	57.4	57.4	0.0	No
R4	29.6	L3	57.1	57.1	0.0	No
R5	27.4	L3	57.1	57.1	0.0	No

Source: *Indian Street Commerce Center, Noise Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) June 23, 2016.

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Table 4.4-11
Project Nighttime Noise Level Contributions

Receiver Location	Total Project Operational Noise Level	Measurement Location	Reference Ambient Noise Levels	Combined Project and Ambient	Project Contribution	Threshold Exceeded?
R1	31.9	L1	62.9	62.9	0.0	No
R2	29.3	L4	57.2	57.2	0.0	No
R3	28.5	L4	57.2	57.2	0.0	No
R4	29.6	L3	56.5	56.5	0.0	No
R5	27.4	L3	56.5	56.5	0.0	No

Source: *Indian Street Commerce Center, Noise Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) June 23, 2016.

As indicated at the preceding tables, the Project would not substantively contribute to daytime or nighttime ambient noise levels at nearby receiver locations. Therefore, the Project-related operational noise level contributions to the daytime or nighttime ambient noise levels at nearby sensitive receiver locations would not exceed the previously-presented significance thresholds.

Based on the preceding discussions, Project operational noise would not result in exposure of persons to, or generation of, noise levels in excess of standards established in the City's General Plan or Noise Ordinance.

Level of Significance: Less-Than-Significant.

Potential Impact: ***Project operational noise would result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.***

Impact Analysis: As discussed above, noise levels attributable to ongoing operational activities within the Project site would not exceed City Noise Ordinance Standards. Similarly, temporary and periodic peak noise events generated by operational activity within the Project site would not result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

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Level of Significance: Less-Than-Significant.

Potential Impact: ***Project operational noise would result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.***

Impact Analysis: As discussed above, noise levels attributable to ongoing operational activities within the Project site would not exceed City Noise Ordinance Standards. Similarly, operational activity within the Project site would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

Level of Significance: Less-Than-Significant.

VIBRATION

As previously presented, the following thresholds were used in analyzing potential vibration impacts of the Project.

Table 4.4-12
Vibration Thresholds

Analysis Scenario	Receptor Land Use	City	Ambient Condition/ Exposure Scenario	Significance Criteria	
				Daytime	Nighttime
Vibration	Noise-Sensitive	All	Operational & Construction	80 VdB	80 VdB

Potential Impact: ***Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise.***

Impact Analysis: The following discussion addresses the potential groundborne vibration/groundborne noise impacts that may be generated by Project site construction activities and/or operational activities within the Project site.

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Construction Vibration

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures, and soil type. It is expected that groundborne vibration from Project construction activities would cause only intermittent, localized intrusion. The proposed Project's construction activities most likely to cause vibration impacts are:

- Heavy Construction Equipment: Although all heavy mobile construction equipment has the potential of causing at least some perceptible vibration while operating close to buildings, the vibration is usually short-term and is not of sufficient magnitude to cause building damage. It is not expected that heavy equipment such as large bulldozers would operate close enough to any residences or buildings to cause a vibration impact.

- Trucks: Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes. Repairing the bumps and potholes generally eliminates the problem.

Groundborne vibration levels resulting from construction activities occurring within the Project site were estimated by data published by the FTA. Construction activities that would have the potential to generate low levels of groundborne vibration within the Project site include grading and paving. Using the vibration source level of construction equipment provided on Table 6-7 of the Noise Impact Analysis and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration impacts. Table 4.4-13 presents the expected Project-related vibration levels at the five receptor locations.

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Table 4.4-13
Construction Equipment Vibration Levels

Receiver Location	Distance To Construction Activity	Receiver Vibration Levels (VdB)					Threshold Exceeded?
		Small Bulldozer	Jackhammer	Loaded Trucks	Large Bulldozer	Peak Vibration	
R1	1,968'	1.1	22.1	29.1	30.1	30.1	No
R2	3,380'	0.0	15.1	22.1	23.1	23.1	No
R3	3,645'	0.0	14.1	21.1	22.1	22.1	No
R4	3,171'	0.0	15.9	22.9	23.9	23.9	No
R5	3,964'	0.0	13.0	20.0	21.0	21.0	No

Source: *Indian Street Commerce Center, Noise Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) June 23, 2016.

As shown above, construction of the Project is not expected to generate vibration levels exceeding the FTA maximum acceptable vibration standard of 80 (VdB). Further, impacts at the site of the closest sensitive receiver are unlikely to be sustained during the entire construction period, but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter.

Operational Vibration

Although the human threshold of perception for vibration is around 65 VdB, human response to vibration is not usually significant unless the vibration exceeds 70 VdB. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement condition. Typical vibration levels for heavy trucks at normal traffic speeds do not exceed 65 VdB, and therefore, will be below the FTA vibration threshold of 80 VdB at nearby sensitive receiver locations. Truck deliveries transiting on site will be travelling at very low speeds so it is expected that delivery truck vibration impacts at nearby homes will not exceed the 80 VdB vibration threshold.

Based on the preceding discussion, the potential for the Project to result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise is less-than-significant.

Level of Significance: Less-Than-Significant.

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EXPOSURE TO AIRPORT/AIRCRAFT NOISE

As previously presented, the following thresholds were used in analyzing potential airport/aircraft-related noise impacts of the Project.

Table 4.4-14
Airport/Aircraft-Related Thresholds

Analysis Scenario	Receptor Land Use	City	Significance Criteria
Aircraft-Related	All	All	Proposed land use must be compatible with the criteria presented within the applicable ALCUP (i.e., considered a compatible land use for the noise contour in which the project site is located).

Potential Impact: ***For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the Project area to excessive noise levels.***

Impact Analysis: The noise contour boundaries that are used to determine potential aircraft-related noise impacts associated with MARB are presented within the RC ALUCP and excerpted here at Figure 4.4-5. As shown, the Project site is located within the 60 to 65 dBA CNEL noise level contours, and therefore, represents a normally acceptable land use based on RC ALUCP compatibility criteria. Typical construction practices would therefore be sufficient to eliminate substantial noise intrusion upon indoor activities.

Level of Significance: Less-Than-Significant.

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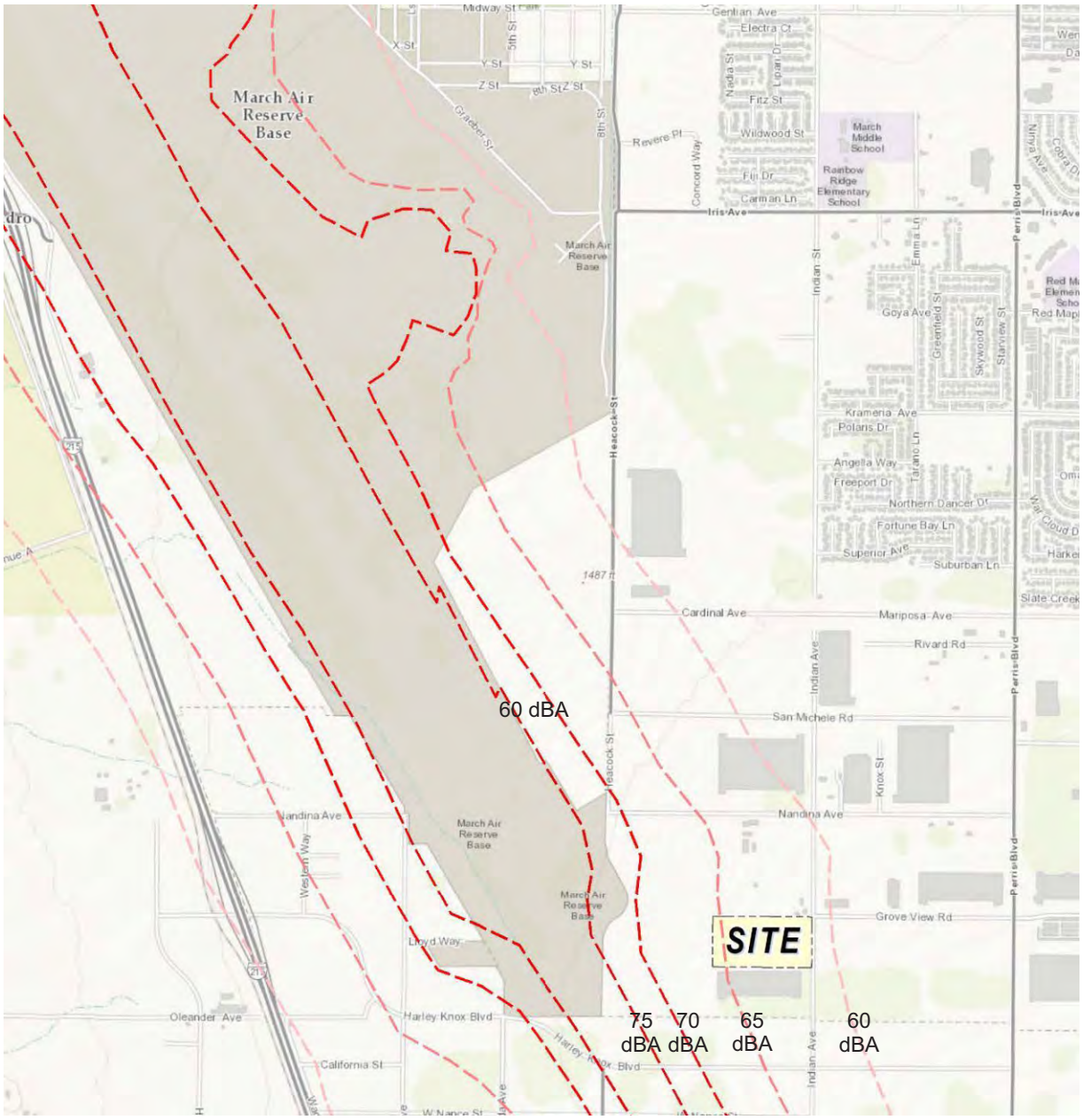

LEGEND:

- Unmitigated 60 dBA CNEL Noise Level Contour Boundary
- Unmitigated 65 dBA CNEL Noise Level Contour Boundary
- Unmitigated 70 dBA CNEL Noise Level Contour Boundary
- Unmitigated 75 dBA CNEL Noise Level Contour Boundary
- Unmitigated 80 dBA CNEL Noise Level Contour Boundary

Source: Riverside County, Airport Land Use Compatibility Plan, Exhibit MA-4.

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NOT TO SCALE

Source: Urban Crossroads, Inc.

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Figure 4.4-5
MARB/IPA Noise Contours

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4.5 HAZARDS/HAZARDOUS MATERIALS

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4.5 HAZARDS/HAZARDOUS MATERIALS

Abstract

This Section identifies and addresses potential hazards and hazardous materials impacts that may result from the implementation and operation of the Indian Street Commerce Center Project (Project). More specifically, the hazards and hazardous materials analysis presented here examines whether the Project would:

- *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;*

- *Result in a safety hazard for people residing or working in the project area for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport; or*

- *Result in a safety hazard for people residing or working in the project area for a project within the vicinity of an airstrip.*

As supported by the analysis presented in this Section, potential hazards and hazardous materials impacts of the Project would be less-than-significant.

Additionally, as substantiated in the Initial Study (EIR Appendix A), the Project's potential impacts under the following topics were previously determined to be less-than-significant, and are not further substantively discussed here:

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- *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*

- *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Section 65962.5 and, as a result, create a significant hazard to the public or the environment;*

- *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or*

- *Potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires.*

Please refer also to Initial Study Checklist Item IX., Hazards and Hazardous Materials.

4.5.1 INTRODUCTION

Information presented in this Section is summarized in part from the *Phase I Environmental Site Assessment (Phase I ESA), 17845 Indian Street, Moreno Valley, California* (Ardent Environmental Group, Inc.) July 15, 2015 and *Results of Pesticide and Herbicide Sampling* (Pesticide and Herbicide Sampling Report), *17845 Indian Street, Moreno Valley, California* (Ardent Environmental Group, Inc.) July 13, 2016. The Phase I ESA and Pesticide and Herbicide Sampling Report are provided in EIR Appendix F.

4.5.2 SETTING

The physical setting of the Project provided here serves as context for potential hazards affecting, or resulting from, the Project.

4.5.2.1 Project Location

The Project site is located in the easterly portion of the City of Moreno Valley, in western Riverside County. The Project site is located approximately one-half mile westerly of Perris Boulevard and is bounded by Indian Street to the east. Grove View Road (alignment) comprises the Project site northerly boundary. March Air Force Base

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is located approximately one-third mile westerly of the Project site. Please refer also to EIR Section 3.0, *Project Description*, Figure 3.2-1, *Project Location*.

4.5.2.2 Project Site Land Use

The Project site is a roughly rectangular-shaped parcel, totaling 19.64 acres. The Project site is a vacant dirt lot with no occupants and is heavily disturbed by general human activities including routine weed abatement. The subject site is generally characterized as a disturbed field dominated by tumbleweed.

Project Site History Summary

An overview of the past use of the site was developed through review of historic data and records. Copies of historical data are provided at Appendix C of the Phase I ESA. The site was vacant land from at least 1938 through the 1960s with possible agricultural usage during the 1930s. From at least 1978 to 2008, the southeastern parcel was occupied by a single-family residence. A prior Phase I ESA reported that the southwestern and two northern parcels were used as a sod farm in 2004. The southeastern parcel was briefly used to store truck trailers during the mid-2000s.The residential building demolition in 2008 included the removal of a septic tank. From 2008 to present-day, the site has remained a vacant lot (Phase I ESA, p. 13).

4.5.2.3 Vicinity Land Uses

In general, the site vicinity consists of commercial warehouse and distribution facilities and vacant land. The site is bound to the south by a warehouse and distribution facility. Westerly of the Project site is vacant land. Adjoining north and east (across Indian Street) are vacant properties with signage indicating future development of these properties as commercial warehouse and distribution facilities.

4.5.2.4 Sensitive Land Uses

Sensitive land uses are considered to include residential land uses, schools, hospitals, daycare centers, or any other land uses that provide long-term occupancy and/or accommodate vulnerable populations (e.g., children, the elderly, and the infirm). Sensitive land uses are located throughout the City of Moreno Valley. The land uses

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specifically discussed herein are those nearest the Project site. These land uses represent locations with the maximum potential exposure to any Project-related hazards, and thus establish a likely maximum potential impact scenario with regard to hazards/hazardous materials. Sensitive land uses nearest the Project site are Morning Dove Christian School (approximately 1.5 miles to the northeast) and Mary McLeod Bethune Elementary School (approximately 1.7 miles northeasterly). No other sensitive land uses, existing or proposed, are located proximate to the Project site.

4.5.3 EXISTING HAZARDS/HAZARDOUS CONDITIONS

Information addressing and describing existing hazards/hazardous conditions affecting the Project site was obtained from a variety of sources including:

User Provided Information - This included title and judicial records for environmental liens or activity and use limitations, recorded environmental liens, actual or specialized knowledge or commonly known information regarding environmental conditions at the site, the relationship of the purchase price of the property to the fair market value, readily available maps, environmental reports, and other environmental documents pertaining to the site (Phase I ESA, p. 4).

Records Review - This included review of: federal, state, tribal, and local regulatory agency databases and records for the site and vicinity properties; local regulatory agency files for the site and selected nearby properties of potential environmental concern; physical setting sources, including topographic maps, geologic maps, and geologic and hydrogeologic reference documents. Historic land use information was also reviewed including: historical aerial photographs, historical fire insurance rate maps, building department records, and city directories (Phase I ESA, p. 4).

Site Reconnaissance - Site reconnaissance was conducted to observe the site in context and under current conditions, and to obtain information indicating the likelihood of any recognized environmental conditions (RECs). Potential RECs include general site setting, site usage, use and storage of hazardous materials and petroleum products, disposal of waste products and materials, sources of polychlorinated biphenyls (PCBs),

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and evidence of releases and possible risks of contamination from activities at adjacent properties (Phase I ESA, p. 5).

Interviews - To the extent necessary and such persons were available, interviews were conducted with site representatives, property owners, occupants, and site managers, regarding the environmental condition of the site. Interviews with state and/or local government officials were also conducted as necessary (Phase I ESA, p. 5).

4.5.3.1 Potential Project Site Hazards and Hazardous Conditions

Past agricultural activities have resulted in certain potential hazards and potentially hazardous conditions affecting the Project site. The following discussions, summarized and excerpted from the Phase I ESA, identify specific potential concerns associated with, or affecting the Project site.

- There are no structures at the site; therefore, friable asbestos-containing building materials (ACM) and lead-based paints (LBP) are not likely present. Based on the historical agricultural usage at the site, there is a moderate potential for the presence of transite piping. If encountered, transite pipes should be removed by a licensed asbestos abatement contractor prior to or during redevelopment activities.

- No other on- or off-site environmental concerns were noted.

[Project Phase I ESA, p. 2]

Additionally, recognizing past agricultural use on the Project site, and the related potential for presence of residual pesticides and herbicides, a site-specific Pesticide and Herbicide Sampling Report (Report) was prepared. Report methodology, results, and conclusions are summarized below.

The Project site was divided into eight separate sampling grids and one soil boring was placed in the approximate center of each grid. Two additional soil borings were placed

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adjacent to the water retention pond located immediately northwest of the Project site. Soil sampling was completed on June 26, 2016. Soil samples were collected from each of the ten soil borings at depths of approximately 1 foot. Laboratory results of the sampling activities are presented at Table 4.5-1.

Table 4.5-1
Summary of Soil Sample Laboratory Results

Sample ID	Organochlorine Pesticides (mg/kg)		Organophosphorous Pesticides (mg/kg)	Chlorinated Herbicides (mg/kg)
	4,4-DDE	All Others		
B1-1	ND<0.0020	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B2-1	0.0038	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B3-1	0.0027	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B4-1	0.0086	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B5-1	0.0031	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B6-1	ND<0.0020	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B7-1	0.0047	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B8-1	0.0037	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B9-1	ND<0.0020	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B10-1	0.0025	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
DTSC-SLi (threshold)	NA	Various	Various	Various
EPA RSLi (threshold)	9.3	Various	Various	Various

Source: *Results of Pesticide and Herbicide Sampling, 17845 Indian Street, Moreno Valley, California* (Ardent Environmental Group, Inc.) July 13, 2016.
Notes:
Sample ID - sample identification
Feet bgs – feet below the ground surface
Organochlorine pesticides analyzed in general accordance with EPA Method No. 8081A
Organophosphorus Pesticides analyzed in general accordance with EPA Method No.8141A
Chlorinated Herbicides analyzed in general accordance with EPA Method No.8151A
4,4-DDE - 4,4-dichlorodiphenyldichloroethylene
mg/kg - milligrams per kilogram
ND - no detectable concentration above the reporting limit
DTSC-SLi - Department of Toxic Substance Control (DTSC), Human Ecological Risk Office (HERO), Human Health Risk Assessment (HHRA) Note 3, Screening Levels for industrial/commercial land use, dated January 2016.
EPA RSLi - EPA, Region 9, Regional Screening Levels for industrial/commercial land use, dated November 2015.

Laboratory results were compared to both the State of California DTSC Screening Levels for industrial/commercial land use (DTSC-SLi) and the Federal EPA Regional Screening Levels for industrial/commercial land use (RSLi). Both of these regulatory guidelines are

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based on a human health risk criteria. Laboratory results indicated no detectable concentrations of OCPs, OPPs, and chlorinated herbicides, with the exception of 4,4-DDE, a breakdown product of 4,4-DDT. The analytical results indicated concentrations of up to 0.0086 milligrams per kilogram (mg/kg) of 4,4-DDE in seven samples. As noted at Table 4.5-1, these concentrations are well below the RSLi guidelines of 9.3 mg/kg; the DTSC does not maintain guidelines for 4,4-DDE.

As can be seen from Table 4.5-1, laboratory results indicated non-detectable to low concentrations of Organochlorine Pesticides, specifically 4,4-DDE. Based on these results, Ardent Environmental Group concluded that "*there is a low likelihood that residual pesticides would pose a significant human health risk to future workers or occupants of the site, or a threat to groundwater below the site.*" Based on these results, the potential for the Project to result in or cause a significant hazard associated with contaminated soils is determined to be less-than-significant. Please refer also to the detailed discussion and evaluation of soil sampling presented at Appendix F.

4.5.3.2 Potential Vicinity Hazards and Hazardous Conditions

Unauthorized Releases of Hazardous Substances

As one component of the Phase I ESA, environmental information databases were researched to identify potential area hazards/hazardous conditions affecting the Project site and vicinity properties. The research was conducted to determine whether the Project site and/or properties within the vicinity of the Project site have been reported as having experienced significant unauthorized releases of hazardous substances or other events with potentially adverse environmental effects. The research encompassed federal, state, local, and tribal databases. A summary of the environmental databases searched and noted facilities of environmental concern are presented at Appendix E of the Phase I ESA.

No unmapped properties were identified in the database research report as potential sources of off-site hazards. Please refer also to the detailed discussion and evaluation of potential off-site hazards presented at Phase I ESA, pp. 18-23.

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March Air Reserve Base Airport

The March Air Reserve Base/Inland Port Airport (March ARB/IPA) is located approximately one-third mile westerly of the Project site. March ARB/IPA is classified as a joint use facility airport; it is owned and operated by the U.S. Air Force, but facilities are available for use by civil aviation. Operation of March ARB/IPA could result in potential hazard/safety impacts affecting the Project site.

4.5.4 HAZARDS/HAZARDOUS MATERIALS POLICIES AND REGULATIONS

4.5.4.1 Overview

As summarized below, the City has developed and adopted General Plan Goals and Policies addressing hazards and hazardous materials. Applicable federal, state, and local regulations which act to reduce potential creation of, or exposure to, hazards and hazardous materials are also presented.

4.5.4.2 City of Moreno Valley General Plan Goals and Policies

The City of Moreno Valley General Plan Safety Element establishes Goals, Objectives, Policies, and Actions addressing community health and safety, including potential hazards and hazardous materials concerns. Goals, Objectives, Policies, and Actions implemented by the City through its General Plan support prevention and education measures acting to minimize the occurrence and effects of hazards, emergencies and disasters; and include measures to ensure the City is able to respond appropriately under hazardous, emergency, or disaster conditions.

4.5.4.3 Regulatory Context

In addition to the above-referenced General Plan Goals, Objectives, Policies, and Actions, a number of federal, state, and local laws have been enacted to regulate and manage hazardous materials. Implementation of these laws and the associated management of hazardous materials are regulated independently of the CEQA process, through programs administered by various agencies at the federal, state, and local levels. An overview of regulatory agencies and certain key hazardous materials laws

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and regulations applicable to the Project, and to which the Project must conform, is provided below.

Federal

Overview

Several federal agencies regulate hazardous materials. These include the U.S. EPA, the United States Occupational Safety and Health Administration (USOSHA), and the United States Department of Transportation (USDOT). Applicable Federal Regulations are contained primarily in Titles 10, 29, 40, and 49 of the Code of Federal Regulations (CFR). Some of the major federal laws and issue areas include the following statutes and implementing regulations:

- Resources Conservation and Recovery Act (RCRA) - hazardous waste management;
- Hazardous and Solid Waste Amendments Act (HSWA) - hazardous waste management;
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - cleanup of contamination;
- Superfund Amendments and Reauthorization Act (SARA) - cleanup of contamination; and
- Emergency Planning and Community Right-to-Know (SARA Title III) - business inventories and emergency response planning.

The U.S. EPA is the primary federal agency responsible for the implementation and enforcement of hazardous materials regulations. In most cases, enforcement of environmental laws and regulations established at the federal level is delegated to state and local environmental regulatory agencies.

In addition, with respect to emergency planning, the Federal Emergency Management Agency (FEMA) is responsible for ensuring the establishment and development of policies and programs for emergency management at the federal, state, and local levels.

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This includes the development of a national capability to mitigate against, prepare for, respond to, and recover from a full range of emergencies.

Hazardous Waste Handling

The U.S. EPA has authorized the California Department of Toxic Substances Control (DTSC) to enforce hazardous waste laws and regulations in California. Requirements place "cradle-to-grave" responsibility for hazardous waste disposal on the shoulders of hazardous waste generators. Waste generators must ensure that their wastes are disposed of properly, and legal requirements dictate the disposal requirements for many waste streams (e.g., a ban on the disposal of many types of hazardous wastes in landfills).

Airforce Air Installation Compatibility Use Zone(s)

The Project site is located within the March Air Reserve Base Airforce Air Installation Compatibility Use Zone (MARB AICUZ) study area. The MARB AICUZ facilitates and promotes establishment and development of compatible land uses which may be subject to aircraft noise and accident hazards. To these ends, the AICUZ provides information concerning aircraft accident hazards to surrounding communities and acts to prevent incompatible development in areas affected by aircraft operations.

The 2005 AICUZ Report mapped and classified hazards areas into various categories indicating the potential for these areas to be subject to aircraft crashes. These areas included: areas on or adjacent to the runway; clear zone areas under runway approach/departure paths; Accident Potential Zone (APZ) I; and Accident Potential Zone (APZ) II. Aircraft Noise Compatibility Zones are also identified in the Report.

State

Overview

The primary state agencies with jurisdiction over hazardous chemical materials management are the DTSC and the State Water Quality Control Board (SWQCB). Other state agencies involved in hazardous materials management and oversight are the

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Department of Industrial Relations, California OSHA (Cal OSHA) implementation, Office of Emergency Services (OES - California Accidental Release Prevention Implementation), Air Resources Board (ARB), California Department of Transportation (Caltrans), State Office of Environmental Health Hazard Assessment (OEHHA - Proposition 65 implementation) and CalRecycle (formerly the California Integrated Waste Management Board, CIWMB). The enforcement agencies for hazardous materials transportation regulations are the California Highway Patrol (CHP) and Caltrans. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations.

Relevant hazardous materials management laws in California include, but are not limited to, the following statutes and implementation regulations:

- Hazardous Materials Management Act - business plan reporting;
- Hazardous Waste Control Act - hazardous waste management;
- Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) - release of and exposure to carcinogenic chemicals;
- Hazardous Substance Act - cleanup of contamination; and
- Hazardous Materials Storage and Emergency Response.

Airport operations, airport planning, airport land use compatibility, and associated hazards and safety concerns are regulated through the California State Aeronautics Act (SAA), Public Utilities Code (PUC), Section 21001 et seq. The Caltrans Division of Aeronautics is, in large part, responsible for administration of the SAA.

California Environmental Protection Agency

The California Environmental Protection Agency (CalEPA) has broad jurisdiction over hazardous materials management in the state. Within CalEPA, the DTSC has primary regulatory responsibility for hazardous waste management and cleanup. Enforcement of regulations has been delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law.

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Along with the DTSC, the SWQCB is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. SWQCB regulations are contained in Title 27 of the California Code of Regulations (CCR). Additional state regulations applicable to hazardous materials are contained in Title 22 of the CCR. Title 26 of the CCR is a compilation of those sections or titles of the CCR that are applicable to hazardous materials.

Department of Toxic Substances Control

The Resource Conservation and Recovery Act (RCRA) of 1976 is the principal federal law that regulates the generation, management, and transportation of hazardous materials and other wastes. The DTSC regulates hazardous waste in California primarily under the authority of the federal RCRA, and the California Health and Safety Code. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. In addition, DTSC reviews and monitors legislation to ensure that the position reflects the DTSC's goals. From these laws, DTSC's major program areas develop regulations and consistent program policies and procedures. The regulations spell out what those who handle hazardous waste must do to comply with the laws.

California law provides the general framework for regulation of hazardous wastes by the Hazardous Waste Control Law (HWCL) passed in 1972. DTSC is the State's lead agency in implementing the HWCL. The HWCL provides for state regulation of existing hazardous waste facilities, which include "any structure, other appurtenances, and improvements on the land, used for treatment, transfer, storage, resource recovery, disposal, or recycling of hazardous wastes," and requires permits for, and inspections of, facilities involved in generation and/or treatment, storage and disposal of hazardous wastes.

The oversight of hazardous materials release sites often involves several different agencies that may have overlapping authority and jurisdiction. The DTSC and SWQCB are the two (2) primary state agencies responsible for issues pertaining to hazardous materials release sites. Air quality issues related to remediation and construction at

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contaminated sites are also subject to federal and state laws and regulations that are administered at the local level.

Investigation and remediation activities that would involve potential disturbance or release of hazardous materials must comply with applicable federal, state, and local hazardous materials laws and regulations. The DTSC has developed standards for the investigation of sites where hazardous materials contamination have been identified or could exist based on current or past uses. The standards identify approaches to determine if a release of hazardous wastes/substances exists at a site and delineate the general extent of contamination; estimate the potential threat to public health and/or the environment from the release and provide an indicator of relative risk; determine if an expedited response action is required to reduce an existing or potential threat; and complete preliminary project scoping activities to determine data gaps and identify possible remedial action strategies to form the basis for development of a site strategy.

California Accidental Release Prevention Program (CalARP)

The CalARP program (CCR Title 19, Division 2, Chapter 4.5) covers certain businesses that store or handle more than a certain volume of specific regulated substances at their facilities. The list of regulated substances is found in Article 8, Section 2770.5 of the CalARP program regulations. The businesses that use a regulated substance above the noted threshold quantity must implement an accidental release prevention program, and some may be required to complete a Risk Management Plan (RMP). An RMP is a detailed engineering analysis of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential. The purpose of an RMP is to decrease the risk of an off-site release of a regulated substance that might harm the surrounding environment and community. An RMP includes the following components: safety information, hazard review, operating procedures, training, maintenance, compliance audits, and incident investigation. The RMP must consider the proximity to sensitive populations located in schools, residential areas, general acute care hospitals, long-term health care facilities, and child day-care facilities, and must also consider external events such as seismic activity.

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Caltrans Division of Aeronautics

The Caltrans Division of Aeronautics (Division) is, in large part, responsible for administration of the California State Aeronautics Act (SAA), Public Utilities Code (PUC), Section 21001 et seq. The purpose of the SAA "is to protect the public interest in aeronautics and aeronautical progress."[1] The SAA is the implementing statute requiring the formation of a county Airport Land Use Commission or comparable designated airport regulatory commission. The SAA at Section 21675. (a) (excerpted in pertinent part below) assigns the ALUC or other designated airport regulatory commission with the responsibility to prepare and adopt an Airport Land Use Compatibility Plan (ALUCP):

> 21675. (a) Each commission shall formulate an airport land use compatibility plan that will provide for the orderly growth of each public airport and the area surrounding the airport within the jurisdiction of the commission, and will safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general. The commission's airport land use compatibility plan shall include and shall be based on a long-range master plan or an airport layout plan, as determined by the Division of Aeronautics of the Department of Transportation, that reflects the anticipated growth of the airport during at least the next 20 years. In formulating an airport land use compatibility plan, the commission may develop height restrictions on buildings, specify use of land, and determine building standards, including soundproofing adjacent to airports, within the airport influence area. The airport land use compatibility plan shall be reviewed as often as necessary in order to accomplish its purposes, but shall not be amended more than once in any calendar year.

[1] *California Airport Land Use Planning Handbook* (Caltrans Division of Aeronautics) October 2011, p. vii.

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Regional

South Coast Air Quality Management District (SCAQMD)

The SCAQMD establishes Rules that regulate or control various air pollutant emissions and emissions sources, including hazardous emissions sources, within the South Coast Air Basin (Basin). The SCAQMD coordinates its actions with local, state, and federal government agencies, the business community, and private citizens to achieve and maintain healthy air quality for Riverside County, including the City of Moreno Valley.

Local

Riverside County Fire Department, Hazardous Materials Division

Under the California Unified Hazardous Waste and Hazardous Material Management Regulatory Program, (Chapter 6.11, Division 20, Section 25404 of the Health and Safety Code), hazards/hazardous materials management is addressed locally though the Certified Unified Program Agency (CUPA). The primary CUPA for the City of Moreno Valley is the County of Riverside Health Department, Environmental Health Division. In its CUPA capacity, Riverside County Department of Environmental Health Hazardous Materials Branch manages the following six hazardous material and hazardous waste programs:

- Hazardous Materials Release Response Plans and Inventory (Business Plan);
- California Accidental Release Program (CalARP);
- Underground Storage Tanks (UST);
- Aboveground Petroleum Storage Act (APSA)/Spill Prevention, Control, and Countermeasure Plan (SPCC Plan);
- Hazardous Waste Generation and Onsite Treatment; and
- Hazardous Materials Management Plans and Inventory Statements under Uniform Fire Code Article 80.

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Riverside County Airport Land Use Compatibility Plan (ALUCP)

California law mandates preparation and adoption of airport land use compatibility plans (ALUCPs) for each public-use and military airport in the state (California Public Utilities Code (PUC) §21675). ALUCPs act to "…protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around airports to the extent that these areas are not already devoted to incompatible uses" (PUC §21670(a)(2)).

In this regard, the Riverside County Airport Land Use Compatibility Plan for March Air Reserve Base/Inland Port Airport (March ARB/IPA ALUCP, ALUCP) acts to ensure mutual compatibility of the MARB/IPA with surrounding land uses, thereby reducing potential airport/aircraft related hazards. [2]

4.5.5 STANDARDS OF SIGNIFICANCE

Pursuant to the *CEQA Guidelines* as adopted and implemented by the City of Moreno Valley, and for purposes of this EIR, implementation of the Project may result in or cause potentially significant hazards/hazardous materials impacts if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment;

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

[2] The compatibility zones and criteria established in the Riverside County ALUCP for March ARB/IPA provide noise and safety compatibility protection equivalent to or greater than correlating criteria presented in the Airforce AICUZ for March ARB/IPA (ALUCP, p.1).

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- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Section 65962.5 and, as a result, create a significant hazard to the public or the environment;

- Result in a safety hazard for people residing or working in the project area for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport;

- Result in a safety hazard for people residing or working in the project area for a project within the vicinity of an airstrip.

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

4.5.6 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.5.6.1 Introduction

The following discussions focus on areas where it has been determined that the Project may result in potentially significant hazards and hazardous materials impacts, pursuant to comments received through the NOP process, and based on the analysis presented within this Section and included within the EIR Initial Study.

As discussed within the Initial Study (EIR Appendix A), the potential for the Project to result in any of the following conditions was determined to be potentially significant, and these potential impacts are discussed further within this Section.

- *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or through reasonably foreseeable upset*

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and accident conditions involving the release of hazardous materials into the environment;

- Result in a safety hazard for people residing or working in the project area for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport; or

- Result in a safety hazard for people residing or working in the project area for a project within the vicinity of an airstrip.

Other CEQA hazards/hazardous materials considerations were determined within the Initial Study to be less-than-significant. These considerations include:

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Section 65962.5 and, as a result, create a significant hazard to the public or the environment;

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

- Potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires.

These potential impacts are therefore not substantively discussed further within this Section. Please refer also to EIR Section 1.5, *Impacts Considered Previously but Not Found to Be Potentially Significant*, and Initial Study Checklist Item IX., *Hazards and Hazardous Materials*.

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4.5.6.2 Impact Statements

Potential Impact: ***Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.***

Impact Analysis: The following discussions summarize the findings of the Phase I ESA prepared for the Project site regarding existing on-site hazards, as well as potential hazards associated with operations of facilities proposed under the Project.

There are no structures at the site; therefore, friable asbestos-containing building materials (ACM) and lead-based paints (LBP) are not likely present. Based on the historical agricultural usage at the site, there is a moderate potential for the presence of transite piping. If encountered, transite pipes should be removed by a licensed asbestos abatement contractor prior to or during redevelopment activities.

Level of Significance: Potentially Significant.

Mitigation Measures:

4.5.1 *All plans, construction documents, and contracts shall contain the following or similar language: Contractors and developers are advised that underground Transite pipelines may be encountered within the Project site. If encountered, these features shall be documented and evaluated by a licensed environmental hazards remediation consultant/contractor. A final report of Transite pipe hazards encountered (if any) and associated remedial actions (if any) shall be submitted to the City. Abatement/disposal of asbestos resulting from removal of Transite pipelines shall be accomplished as detailed at EIR Section 4.5.4, Hazardous Waste Handling.*

Level of Significance after Mitigation: Less-Than-Significant.

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Potential Impact: *Result in a safety hazard for people residing or working in the project area for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, or within the vicinity of an airstrip***.**

Impact Analysis: The Project site lies within the area regulated under the 2014 Riverside County ALUCP for March ARB/IPA (ALUCP) and the 2005 March Air Reserve Base Air Installation Compatibility Use Zone Study (MARB AICUZ, AICUZ). The compatibility zones and associated criteria set forth in the ALUCP provide noise and safety compatibility protection equivalent to or greater than correlating criteria presented in the AICUZ (ALUCP, p.1). The analysis presented herein reflects the more stringent criteria established under the ALUCP.

Under the ALUCP, the Project site is overlain by Compatibility Zones B2 and C1 (please refer to Figure 4.5-1). Basic Compatibility Criteria for these Zones are also presented at Figure 4.5-1. Project consistency with applicable Zone Criteria is summarized below.

Zone B2

The westerly portion of the Project site is overlain by Zone B2, as delineated under the ALUCP. Consistent with the Basic Compatibility Criteria for Zone B2, this portion of the Project site would not be developed, nor otherwise accommodate, any of the following: children's schools; daycare centers; libraries; hospitals; congregate care facilities; hotels/ motels; places of assembly; buildings with more than three above ground habitable floors; noise-sensitive outdoor non-residential uses; critical community infrastructure facilities; or hazards to flight.

Consistent with other development conditions articulated for Zone B2, the Project site plan and building design concepts comply with the following criteria: Project structures would be located as far as possible from extended runway centerline(s); sound attenuation would be provided for all Project office uses in Zone B2 ensuring that interior noise levels would not exceed 45 dBA CNEL (please refer also to EIR Section 4.4, *Noise*); above-ground bulk storage of hazardous materials is not proposed or required.

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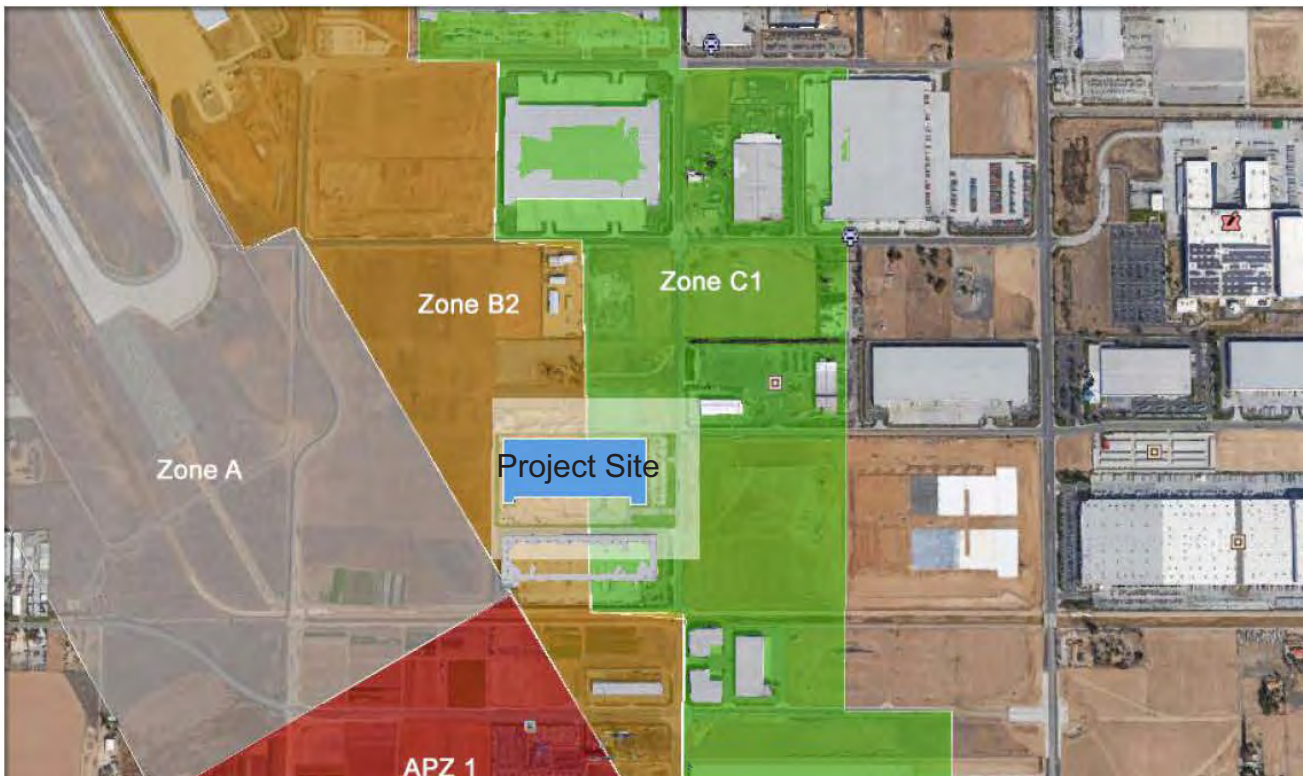

Zone	Locations	Residential (du/ac)[1]	Average[5] (pple/ac)	Single Acre[6]	Required Open Land	Prohibited Uses[3]	Other Development Conditions[4]
B2	High Noise Zone	No new dwellings allowed[10]	100	250	No Req't	Children's schools, day care centers, libraries; Hospitals, congregate care facilities, hotels/ motels, places of assembly; Bldgs with >3 aboveground habitable floors; Noise-sensitive outdoor nonresidential uses[15]; Critical community infrastructure facilities[15]; Hazards to flight[8]	Locate structures max. distance from runway; Sound attenuation as necessary to meet interior noise level criteria[18]; Aboveground bulk storage of hazardous materials discouraged[14,20]; Airspace review req'd for objects >35 ft. tall[19]; Electromagnetic radiation notification[9]; Avigation easement dedication and disclosure[4]
C1	Primary Approach/ Departure Zone	≤3.0	100	250	No Req't	Children's schools, day care centers, libraries, Hospitals, congregate care facilities, places of assembly; Noise-sensitive outdoor nonresidential uses[15]; Hazards to flight[8]	Critical community infrastructure facilities discouraged[16,20]; Aboveground bulk storage of hazardous materials discouraged[14,20]; Sound attenuation as necessary to meet interior noise level criteria[18]; Airspace review req'd for objects >70 ft. tall[19]; Electromagnetic radiation notification[9]; Deed notice and disclosure[4]

N

NOT TO SCALE

Source: ALUCP; Applied Planning, Inc.

Figure 4.5-1
ALUCP Zone Overlay

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The Project does not propose designs or uses that would not encroach on restricted air space(s) nor would the Project structures otherwise would adversely affect airfield operations. Federal Aviation Administration (FAA) airspace review has been completed for the Project, and the FAA has issued *No Hazard to Air Navigation Determinations* for all Project facilities; the Riverside County ALUC has reviewed the Project and determined the Project to be consistent with the March Air Reserve Base/Inland Port Airport ALUCP (please refer to EIR Appendix I, Airport Compatibility Documentation). The Project does not propose or require facilities or uses that would generate electromagnetic radiation; an avigation easement would be recorded against all properties within Zone B2.

Zone C1

The easterly portion of the Project site is overlain by ALUCP Zone C1. Consistent with the Basic Compatibility Criteria for Zone C1, this portion of the Project site would not be developed with, nor otherwise accommodate any of the following: children's schools; daycare centers; libraries; hospitals; congregate care facilities; places of assembly; noise-sensitive outdoor non-residential uses; or hazards to flight.

Consistent with other development conditions articulated for Zone C1, the Project site plan concept and concept building designs comply with the following criteria: critical community infrastructure facilities are not required or proposed; above-ground bulk storage of hazardous materials is not required or proposed; sound attenuation would be provided for all Project office uses in Zone B2 ensuring that interior noise levels would not exceed 45 dBA CNEL (please refer also to EIR Section 4.4, *Noise*). The Project does not propose or require facilities or uses that would generate electromagnetic radiation; deed notice and disclosure would be provided for all properties within Zone C1. The Project does not propose designs or uses that would not encroach on restricted air space(s) nor would the Project structures otherwise would adversely affect airfield operations. Federal Aviation Administration (FAA) airspace review has been completed for the Project, and the FAA has issued *No Hazard to Air Navigation Determinations* for all Project facilities; the Riverside County ALUC has reviewed the Project and determined the Project to be consistent with the March Air Reserve Base/Inland Port Airport

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ALUCP (please refer to EIR Appendix I, Airport Compatibility Documentation). The Project does not propose or require facilities or uses that would generate electromagnetic radiation; an avigation easement would be recorded against all properties within Zone B2.

Other Considerations

As noted at EIR Section 3.0, *Project Description*, the Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power (approximately 160,350 kWh/year) to serve all Project office areas (*Project Description*, p. 3-19). Given the Project's proximity to March ARB/IPA, there is the potential for the Project PV solar panel array to cause reflective glare that could adversely affect March ARB/IPA operations. The Federal Aviation Administration recommends analysis of these potential glare impacts employing the Sandia National Laboratories Solar Glare Hazard Analysis Tool (SGHAT). The SGHAT analysis of the concept Project PV panel array design (please refer to EIR Appendix I, Airport Compatibility Documentation) indicates that, if implemented, the Project PV solar panels would not result in or cause significant glare impacts that would adversely affect operations of March ARB/IPA.

Based on the preceding, the potential for the Project to: result in or cause a safety hazard for people residing or working in the Project area due to airport/airstrip operations; or to adversely affect airport/airstrip operations is considered less-than-significant.

Level of Significance: Less-Than-Significant.

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4.6 HYDROLOGY AND WATER QUALITY

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4.6 HYDROLOGY AND WATER QUALITY

Abstract

This Section of the EIR addresses potential impacts of the Project related to hydrology and water quality. The analysis presented herein focuses on the potential for the Project to:

- *Violate any water quality standards or waste discharge requirements;*
- *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site;*
- *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site;*
- *Create or contribute runoff water that would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or*
- *Otherwise substantially degrade water quality.*

As supported by the analysis presented in this Section, the above-noted potential hydrology/water quality impacts are determined to be less-than-significant.

Additionally, as substantiated in the Initial Study (EIR Appendix A), the Project's potential impacts under the following topics were previously determined to have no impact or impacts would be less-than-significant, and are not further substantively discussed here:

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- *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of the pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);*

- *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;*

- *Place within a 100-year flood hazard area structures which would impede or redirect flood flows;*

- *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or*

- *Inundation by seiche, tsunami, or mudflow.*

Please also refer to Initial Study Checklist Item X. Hydrology and Water Quality.

4.6.1 INTRODUCTION

This Section evaluates potential impacts of the Project on hydrology and water quality. Information contained in this Section has been summarized or excerpted from: *Preliminary Hydrology Report for Moreno Valley Vogel Industrial* [Indian Street Commerce Center Project] (Huitt-Zollars, Inc.) Revised July 7, 2016 (Project Drainage Study); and Project Specific Water Quality Management Plan for *Moreno Valley Vogel Industrial* [Indian Street Commerce Center Project] (Huitt-Zollars, Inc.) Revised March 29, 2016 (Project WQMP). The Project Drainage Study and Project WQMP are presented at EIR Appendix G.

Additional source and background information was obtained from the Indian Street Commerce Center Site Plan Concept; the City of Moreno Valley General Plan and General Plan EIR; the Santa Ana Regional Water Quality Control Board (SARWQCB); and the California State Water Resources Control Board (SWRCB).

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4.6.2 SETTING

Please refer to EIR Section 3.0, *Project Description*, for a general discussion of the Project's regional and vicinity setting. The hydrologic setting described below establishes the baseline against which the Project's potential hydrology/water quality impacts were evaluated.

4.6.2.1 Regional Drainage Systems

The majority of the City, including the Project site, drains to the San Jacinto River. The San Jacinto River drains approximately 540 square miles to the Railroad Canyon Reservoir (Canyon Lake) which discharges to Lake Elsinore, which then discharges to a tributary of the Santa Ana River.

The Riverside County Flood Control and Water Conservation District (RCFCWCD) is the agency responsible for the regional flood control system. The RCFCWCD has prepared three Master Drainage Plans (Sunnymead Area, West End, and Moreno), each of which covers a different portion of the City. Three major storm drains/channels (Sunnymead, Kitching, and Perris Valley) serve the City. These facilities generally trend north to south. These channels drain to the San Jacinto River, Canyon Lake and ultimately to Lake Elsinore.

4.6.2.2 Surface Water

Surface water quality in the planning area is regulated by the Santa Ana Regional Water Quality Control Board (SARWQCB) Region 8. The SARWQCB Basin Plan (Basin Plan) establishes water quality standards for all ground and surface waters within the Region. The Santa Ana Region includes the upper and lower Santa Ana River watersheds, the San Jacinto River watershed, and several other small drainage areas.

4.6.2.3 Groundwater

The majority of the City lies in the Perris North Groundwater Basin, and the easternmost portions of the City lie within the San Jacinto Groundwater Basin. Depth to groundwater under the City on averages ranges from approximately 100 feet to 150 feet below ground

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surface (BGS).[1] The Project Geotechnical Investigation indicates that depth to groundwater at the Project site is greater than 50 feet BGS.[2]

4.6.2.4 Stormwater Management and Flood Control

Regional flood control planning and facilities serving the City and the Project site are under the jurisdiction of the Riverside County Flood Control and Water Conservation District (RCFCWCD). The City of Moreno Valley has jurisdictional authority and responsibility for implementation of local drainage facilities. Road curb and gutter and roadside drainage swales supplement and complement storm drains and other components of flood control / stormwater management system.

Portions of the City are located within mapped 100-year flood hazard areas. As means of alleviating these flood hazards and improve the area-wide stormwater management system, RCFCWCD has prepared five "Master Drainage Plans" (MDPs) encompassing the City and surrounding areas. The MDPs comprise a system of open channels and underground storm drains, which in conjunction with roadway curb/gutter systems and drainage swales, allow for the safe and efficient passage of stormwaters through urbanized areas of the City. The Project site is located within the *Perris Valley MDP*. *Perris Valley MDP* Lateral B-3 exists within Indian Street, the Project site's easterly boundary. General Plan Safety Element, Figure 6-4, *Flood Hazards* indicates that the Project site is not located within a 100-year flood hazard zone.

4.6.2.5 Project Site Hydrology

Project site elevations range from approximately 1,471 feet above mean sea level (MSL) in the northwesterly portions of the Project site, to approximately 1,465 feet in the southeasterly area of the site – yielding a gradient of less than less than 1.0 percent, trending from the northwest to southeast. Runoff from the undeveloped Project site flows to a private headwall structure in the southeast corner of the site and then drains to the

1 General Plan EIR, p. 5.7-6.

2 *Geotechnical Investigation Proposed Warehouse Development Southwest Corner of Indian Avenue and Grove View Road Moreno Valley*, California (NorCal Engineering) July 21, 2014, p. 4.

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existing public storm drain located in abutting Indian Street. Stormwaters are then conveyed by the Indian Street storm drain to the Perris Valley Storm Drain Channel, ultimately discharging to the Santa Ana River.

4.6.3 REGULATORY SETTING

Applicable federal, state, and local policies and regulations which act to reduce potential hydrologic impacts and/or act to protect and preserve water quality are summarized below.

4.6.3.1 Federal Water Pollution Control Act, Federal Clean Water Act (CWA)

The principal law governing pollution of the nation's surface waters is the Federal Water Pollution Control Act, or Clean Water Act (CWA), which was substantially revised by amendments in 1972 that created the bulk of the current statutory scheme. The CWA requires states to adopt water quality standards. To achieve its objectives, the CWA is based on the concept that all discharges into the nation's waters are unlawful, unless specifically authorized by a permit. Moreover, the CWA states that discharge of pollutants into waters of the United States from any point source is unlawful unless the discharge complies with the National Pollution Discharge Elimination System (NPDES) permit.

The NPDES is a national program under Section 402 of the CWA. The CWA establishes the framework for regulating municipal and industrial (point sources) stormwater discharges under the NPDES program. In California, the NPDES program is administered through the nine Regional Water Quality Control Boards, including the Santa Ana Regional Water Quality Control Board (SARWQCB). Locally, the SARWQCB is responsible for determining the City of Moreno Valley's compliance with the water quality requirements of the CWA.

Non-point pollution sources are also regulated by the SARWQCB through the General Construction Activity Storm Water NPDES permits, which are issued for stormwater discharges. Construction activities that are subject to this general permit include clearing, grading, and disturbances to the ground such as stockpiling or excavation that result in soil disturbances. Storm water pollution prevention plans (SWPPPs) are required for the

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issuance of a construction NPDES permit and typically include both structural and non-structural Best Management Practices (BMPs) to reduce water quality impacts.

The Project would implement and comply with applicable provisions of the Federal Water Pollution Control Act, and Federal Clean Water Act.

4.6.3.2 State of California and Riverside County

At the federal level, the CWA allows the Environmental Protection Agency (EPA) to delegate its NPDES system permitting authority to states with an approved regulatory program. The CWA authorizes discharge of pollutants into waters of the State by issuance of NPDES permits. Moreno Valley, Riverside County and 23 other cities and agencies obtained a joint NPDES permit from the SARWQCB. As a co-permittee, the City has the following authority and responsibilities:

- Conduct storm drain system inspections;
- Conduct and coordinate with the County any surveys and characterizations needed to identify the pollutant sources and drainage areas;
- Implement management programs, monitoring programs and implementation plans;
- Enact legislation and ordinances as necessary to establish legal authority;
- Pursue enforcement actions as necessary to ensure compliance with the stormwater management programs and the implementation plans; and
- Respond to emergency situations (e.g., accidental spills, leaks, illegal discharges and illicit connections) to prevent or reduce the discharge of pollutants to storm drain systems and streams.

Regulated entities acting as co-permittees must obtain coverage under an NPDES stormwater permit and implement construction SWPPPs and operational Water Quality Management Plans (WQMPs), both using BMPs that effectively reduce or prevent the discharge of pollutants into receiving waters. The NPDES permit imposes various requirements on dischargers. In general, provided the discharger complies with such requirements, the discharger is deemed to be in compliance with the CWA and the Permit.

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Most of the requirements imposed by the Permit consist of BMPs, which are construction and operational discharge control practices and mechanisms that have been deemed to achieve compliance with the CWA requirements. Additional details regarding the required SWPPP and WQMP are provided below.

Construction Storm Water Pollution Prevention Plan (SWPPP) Required

In December 1999, the State Water Resources Control Board (SWRCB) issued an NPDES General Permit for the discharge of stormwater associated with construction activities. Federal regulations promulgated by USEPA (40 CFR Parts, 9, 122, 123, and 124) expanded the NPDES stormwater program to include stormwater discharges from municipal separate storm sewer systems (MS4s) and construction sites that were smaller than those previously included in the program. Accordingly, SWRCB issued a NPDES General Permit (Permit) for the discharge of stormwater associated with construction activities. The current Permit and its amendments, regulate stormwater discharges associated with construction activities. The Permit is applicable to all of California, which includes the City of Moreno Valley and the Project site.

Requirements of this Permit include a mandate that all dischargers shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP) in accordance with Section A of the NPDES General Permit. Pursuant to NPDES General Permit Section A SWPPP requirements:

- All pollutant sources shall be identified;
- BMPs shall be implemented in order to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the construction site during construction; and
- A maintenance schedule for BMPs installed during construction shall be implemented. BMPs shall be described for control of discharges from waste handling and disposal areas and methods of on-site storage and disposal of construction materials and construction waste.

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An effective combination of erosion and sediment control on all disturbed areas during the rainy season must be implemented. The SWPPP shall include a description of the erosion control practices. The SWPPP shall include descriptions of the BMPs to reduce pollutants in stormwater discharges subsequent to construction activities. The beneficial uses of the receiving waters are protected through implementation of these BMPs.

BMP stormwater pollutant source controls are articulated in the NPDES Permit, and include such measures as first flush diversion, detention/retention basins, infiltration trenches/basins, porous pavement, oil/grease separators, grass swales, education programs, and maintenance practices. The NPDES permitting program also includes measures to reduce the release of pollutants such as sediment, construction materials, or accidental spillage of polluting materials during construction. Consistent with provisions of the NPDES Permit, the City of Moreno Valley requires implementation of development-specific SWPPPs and incorporation of BMPs that reduce, to the extent practicable, stormwater and urban runoff pollutant discharges to the waters of Southern California.

Water Quality Management Plan (WQMP)

The Project is also required to develop and implement a WQMP addressing potential operational stormwater pollutant discharges over the life of the Project. As with the Project SWPPP, the Project's mandated WQMP would act to control potential discharge of pollutants, and avoid discharge of sediments into streets, stormwater channels, or waterways. A copy of the draft WQMP prepared for the Project site has been included at EIR Appendix G.

Typical SWPPP and WQMP elements include, but would not be limited to:

- Introduction and Purpose
- Compliance Requirements and Certifications
- Facility Information/Pollution Prevention Team Members
- Site Map
- List of Significant Materials
- Potential Stormwater Pollutants and Sources
- Best Management Practices

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- Summary of Pollutants, Sources, and BMPs
- Annual Comprehensive Site Evaluation
- Definitions
- State Notice of Intent (NOI) Form and Instructions

4.6.3.3 Porter-Cologne Water Quality Act

Section 303 of the federal Clean Water Act and the State's Porter-Cologne Water Quality Act establish applicable water quality objectives for ground and surface waters in the State. In general, protection and maintenance of surface water quality is the combined responsibility of the applicable Regional Water Quality Control Board (RWQCB), water supply and wastewater management agencies (Inland Empire Utilities Agency [IEUA]), City (City of Moreno Valley) and County (Riverside County) governments.

The RWQCB has purview over point and non-point sources of pollution. Point source water pollutants consist of controlled wastewater releases that are commonly generated by activities that use water to collect pollutants and transport them from the processing facility. When such wastewater discharges are proposed, the applicant must obtain a set of Waste Discharge Requirements from the RWQCB which serve to control water pollution to a non-significant level from such point sources.

Non-point sources of water pollution consist of surface runoff from a site or area during or following a storm where the source of pollution cannot be traced to a specific location. Typical non-point water pollution sources consist of agricultural fields with sediment and fertilizers, construction sites with sediment and debris, and roads with oil, tire particles, and debris common to roads. The Project will implement and comply with applicable Porter-Cologne water quality protection policies and mandates.

4.6.3.4 Santa Ana Watershed Project Authority, Water Resources Plan

The Santa Ana Watershed Project Authority (SAWPA) was formed to promote a mutually beneficial way of protecting water quality in the Santa Ana Watershed. Orange County Water District, Inland Empire Utilities Agencies, San Bernardino Valley Municipal Water District, Western Municipal Water District, and Eastern Municipal Water District represent

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all the major areas of water use in the Santa Ana Watershed. The Eastern Municipal Water District (EMWD) serves the City of Moreno Valley. SAWPA operates a desalter that removes contaminants from groundwater to make the water suitable for use.

4.6.3.5 Moreno Valley Municipal Code

All required Project storm drain facilities will be funded, designed, implemented, and maintained consistent with City of Moreno Valley policies and requirements as outlined in the City Municipal Code. General requirements are outlined below. Please refer also to the City of Moreno Valley Municipal Code available at the following website: http://qcode.us/codes/morenovalley/. More specifically, Municipal Code Title 8, *Buildings and Construction*; Chapter 8.10, *Stormwater/Urban Runoff Management and Discharge Controls*, identifies the following requirements for new development.

> 8.10.050 Reduction of pollutants in stormwater.
>
> C. New Development and Redevelopment. New development or redevelopment projects shall control stormwater runoff so as to prevent any deterioration of water quality that would impair subsequent or competing uses of the water. The city engineer shall identify the BMPs [Best Management Practices] that may be implemented to prevent such deterioration and shall identify the manner of implementation. The BMPs may, among other things, require new developments or redevelopments to do any of the following:
>
> 1. Increase permeable areas by leaving highly porous soil and low lying areas undisturbed; by incorporating landscaping, green roofs and open space into the project design; by using porous materials for or near driveways, drive aisles, parking stalls and low volume roads and walkways; and by incorporating detention ponds and infiltration pits into the project design.
> 2. Direct runoff to permeable areas by orienting it away from impermeable areas to swales, berms, green strip filters, gravel beds, rain gardens, pervious pavement or other approved green infrastructure and French drains; by installing rain-gutters oriented towards permeable areas; by modifying the grade of the property to divert flow to permeable areas and minimize the

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amount of stormwater runoff leaving the property; and by designing curbs, berms or other structures such that they do not isolate permeable or landscaped areas.

3. Maximize stormwater storage for reuse by using retention structures, subsurface areas, cisterns, or other structures to store stormwater runoff for reuse or slow release.

4. Rain gardens may be proposed in-lieu of a water quality basin when applicable and approved by the city engineer.

4.6.4 PROJECT DRAINAGE IMPROVEMENTS

4.6.4.1 Overview

At present, stormwater runoff from the majority of the Project site sheet flows across the site toward Indian Street. Under post-development conditions, the Project stormwater management system would convey and discharge stormwater runoff in a manner comparable to pre-development discharge patterns.

4.6.4.2 Project Stormwater Management System Concept

The Project Stormwater Management System Concept is presented at Figure 4.6-1. Under the illustrated Concept, runoff from the northerly and easterly areas of the Project site would sheet flow easterly and discharge through curb openings to onsite bio-retention basins No.1 and No. 2 paralleling adjacent Indian Street. These basins are connected by an onsite 18-inch storm drainage pipe that would direct stormwaters southerly/southeasterly, connecting ultimately to an onsite 30 to 36 inch storm drain. This storm drain then connects to the existing Master Drainage Plan (MDP) 6 foot high by 10 foot wide reinforced concrete box storm drain located in Indian Street. This MPD storm drain has been designed and constructed pursuant to the *Perris Valley MDP*, and in anticipation of stormwater discharges resulting from areawide development such as that proposed by the Project. Because the Project is consistent with and is anticipated under the *Perris Valley MDP*, the Project would not result in exceedance of available storm drain capacities or flooding due to the introduction of substantial, unanticipated stormwater flows. The existing Indian Street storm drain has adequate capacity to accept and convey 100-year Project stormwater flows to the Perris Valley Storm Drain Channel.

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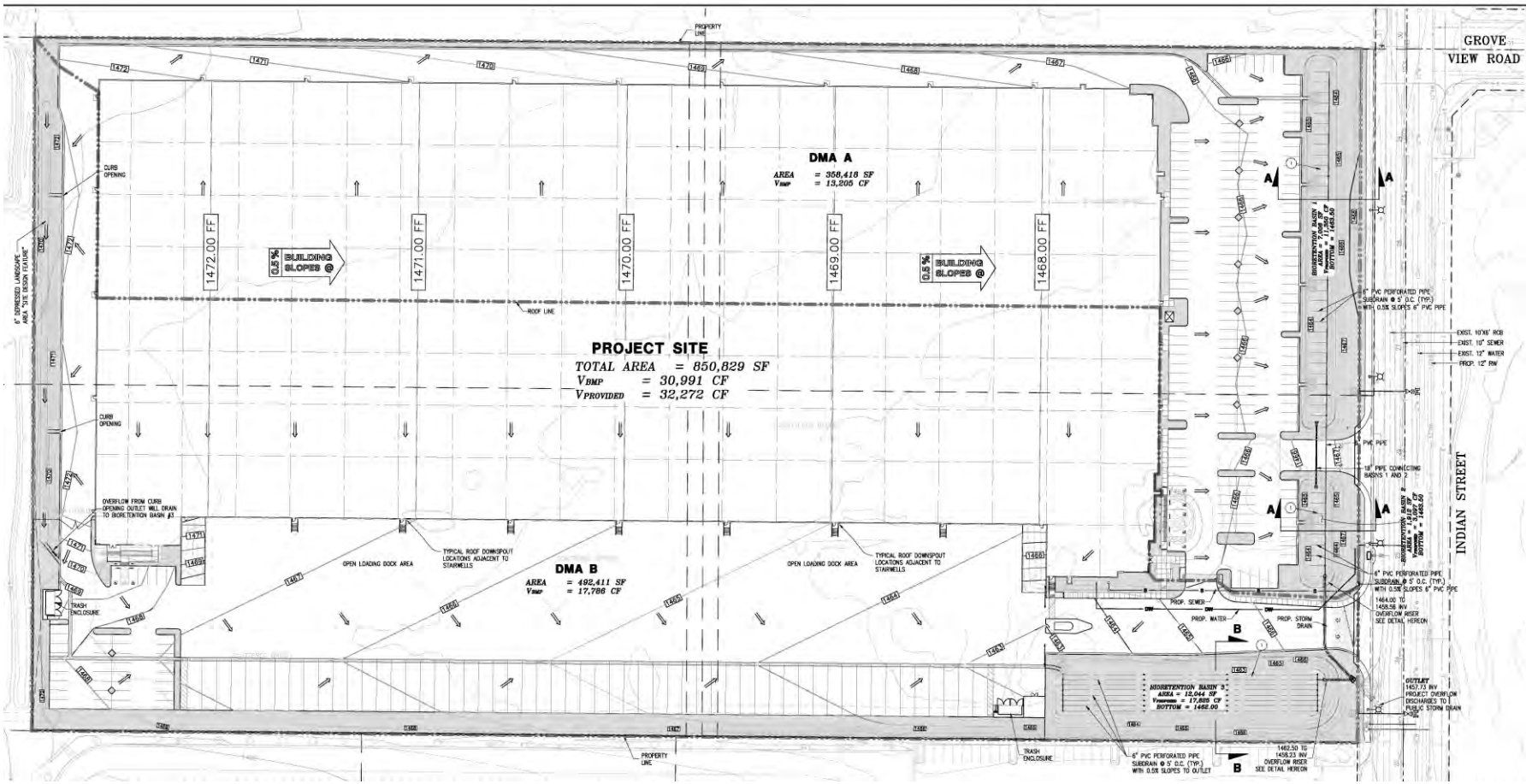


WQMP BMP NOTES

1. BIORETENTION BASIN, SEE DETAIL HEREON

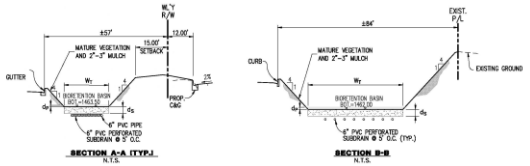
LEGEND

- SD — PROPOSED STORM DRAIN
- WQMP BOUNDARY
- PROPOSED CURB OPENING INLET W/ FILTER INSERT
- PROPOSED LANDSCAPING AREA
- CB CATCH BASIN
- TG TOP OF GRATE
- FLOW DIRECTION

PROJECT BMP CONFORMANCE ANALYSIS

NAME	AREA (SF)	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	I	C	V_{BMP} (CF)	BMP	$A_{PROVIDED}$ (SF)	$V_{PROVIDED}$ (CF)
DMA A	358,418	315,832	42,586	0.88	0.70	13,205	*BIORETENTION BASIN 1 & 2	7,006+1,912 = 8,918	11,350+3,097 = 14,447
DMA B	492,411	428,102	64,309	0.87	0.69	17,786	BIORETENTION BASIN 3	12,044	17,825

*THE BIORETENTION BASIN 1 AND 2 ARE LINKED TOGETHER BY A 18" RCP



SECTION A-A (TYP.) N.T.S.

SECTION B-B N.T.S.

NAME	d_B (FT)	d_S (FT)	W_T (FT)	d_T (FT)	$A_{PROVIDED}$ (SF)	$V_{PROVIDED}$ (CF)
*BIORETENTION BASIN 1	0.50	2.5	20	1.62	7,006	11,350
*BIORETENTION BASIN 2	0.50	2.5	20	1.62	1,912	3,097
BIORETENTION BASIN 3	0.50	2.0	40	1.48	12,044	17,825

*THE BIORETENTION BASIN 1 AND 2 ARE LINKED TOGETHER BY A 18" RCP

BIORETENTION BASIN N.T.S.

N

NOT TO SCALE

Source: Huitt-Zollars

Figure 4.6-1
Project Stormwater Management System Concept

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Runoff from the westerly portions of the Project site would sheet flow to a north - south drainage swale and would then be directed southerly to an onsite east - west cross gutter located along the site's southerly boundary. Runoff from the southerly portion of the site would sheet flow directly to this cross gutter. All stormwaters from this cross gutter would be conveyed to on-site bio-retention basin No. 3 located in the southeast corner of the Project site. Discharges from basin No. 3 would be conveyed via an onsite storm drain connecting easterly to the proposed onsite 30 to 36 inch storm drain at the southeasterly corner of the Project site.

The Project bio-retention basins would serve dual functions as stormwater quality treatment facilities and as flood control features. The basins have been designed consistent with the Riverside County Low Impact Development Design BMP Handbook and the City's Water Quality Basin Civil Design Guidelines. More specifically, the Project bio-retention basins have been sized to capture and treat the required volume of stormwater based on current Riverside County and City of Moreno Valley water quality management plan guidance materials. The Project bio-retention basins would act to attenuate stormwater discharge volumes and rates of runoff during minor storm events comparable to pre-development conditions. Preliminary WQMP estimates establish the required stormwater capture volume at approximately 31,257 cubic feet; the basins have been designed to capture 33,274 cubic feet of stormwater. Any stormwater discharge volumes exceeding bio retention capacities would be conveyed via the on-site storm drain system to the existing Indian Street storm drain box structure.

The Project bio-retention basins would collect and treat stormwater runoff via filter media placed within the bottom of each basin. The design allows for the collected stormwater to permeate through the media bottom and dissipate within a maximum of 48 hours after the end of each storm event. The basins shall be maintained regularly to ensure that there is no standing water beyond 48 hours after a rainfall event. To ensure compatibility with the March Air Reserve Base and Inland Airport operations, the proposed landscaping and vegetation in and around the retention basins and the project site will be selected in full compliance with the MARB and Inland Airport design standards and operational guidelines.

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4.6.5 STANDARDS OF SIGNIFICANCE

Consistent with the standards of significance outlined in the *CEQA Guidelines*, hydrology/water quality impacts would be considered potentially significant if the Project would:

- Violate any water quality standards or waste discharge requirements;

- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of the pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);

- Substantially alter the existing drainage pattern of the area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

- Create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

- Otherwise substantially degrade water quality;

- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;

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- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;

- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or

- Cause or result in inundation by seiche, tsunami, or mudflow.

4.6.6 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.6.6.1 Introduction

The following discussions focus on topical areas and issues where it has been determined pursuant to the EIR Initial Study/NOP processes, that the Project may result in or cause potentially significant hydrology/water quality impacts. Of the CEQA threshold considerations identified above at Section 4.6.5, and as substantiated in the Initial Study (EIR Appendix A), the Project's potential impacts under the following topics are determined to have no impact or impacts would be less-than-significant, and are not further substantively discussed here:

- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of the pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);

- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;

- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;

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- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or

- Inundation by seiche, tsunami, or mudflow.

All other CEQA topics concerning the Project's potential hydrology/water quality impacts are discussed below. Please also refer to Initial Study Checklist Item X. *Hydrology and Water Quality*.

4.6.6.2 Impact Statements

Potential Impact: *Would the Project violate any water quality standards or waste discharge requirements?*

Impact Analysis:

The Project is Required to Comply with Stormwater Discharge Standards; Project SWPPP, WQMP and Stormwater Management System Address Potential Stormwater Pollutant Discharge Impacts

The Project is mandated to acquire all necessary permits, and comply with City of Moreno Valley and RWQCB requirements for the Santa Ana Region, acting to preclude, or substantively reduce the potential of the Project to violate any water quality standards or waste discharge requirements. As discussed below, and consistent with established City building code regulations, a site-specific drainage study, SWPPP, and WQMP reflecting precise pad locations, proposed drainage structures, detention facilities, water quality management features, BMPs, etc., would be required prior to the issuance of building permits. Project compliance in these regards acts to preclude stormwater discharges that would potentially violate water quality standards.

- The Project would be developed and operated in compliance with City/SARWQCB regulations and water quality standards. More specifically, the Project would provide connection to, and interface with, existing and proposed drainage systems

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in the least invasive manner possible. Design, configuration, and locations of proposed drainage system improvements will be reviewed and approved by the City prior to, or concurrent with, application for grading permits.

- The Project's bio-retention basins would provide for elimination/reduction of pollutant discharges, including capture and treatment of dry weather and first flush runoff in a manner consistent with City and SARWQCB policies and requirements. Other permeable areas, such as landscape planters, fingers, and perimeter planters act to further enhance on-site capture and absorption of storm flows.

- All stormwater discharges would be required to comply with performance standards established under the RCFCWCD NPDES permit. Consistent with SARWQCB, RCFCWCD and City requirements, discharge of waste materials to drainage areas, streambeds, or streams would be prohibited. Appropriate BMPs will be employed throughout construction processes, thereby controlling potential discharge of pollutants, preventing sewage spills, and avoiding discharge of sediments into streets, stormwater channels, or waterways. Selected BMPs would act to:

    - Control and prevent potential contaminant spills;
    - Prevent runoff from off-site areas from flow across the construction site(s);
    - Slow runoff rates across the site;
    - Provide soils stabilization; and
    - Remove sediment from on-site runoff before it leaves the site.

- Similarly, the Project's mandated WQMP would act to control potential discharge of pollutants, prevent sewage spills, and avoid discharge of sediments into streets, stormwater channels, or waterways due to operational activities over the life of the Project. All required drainage improvements would be designed and implemented

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consistent with City, SARWQCB, and RCFCWCD design and performance standards. Please refer also to the Project WQMP provided at EIR Appendix G.

The Project Does Not Propose or Require Elements that Would Violate Waste Discharge Requirements

The Project would connect to the existing sanitary sewer system serving the Project area, and does not propose or require septic systems or other alternative treatment of wastewater that would potentially result in violation of waste discharge requirements. Further, the Project's plans for connection to existing sanitary sewer infrastructure facilities are subject to review and approval by the City and EMWD. The Project Applicant would also be required to apply for service and pay a mandated Connection Fee and ongoing Service Fees. Fees paid by the Project would be applied toward maintenance and expansion of City and EMWD wastewater conveyance and treatment facilities. Wastewater generated by the Project is typical of commercial generators and wastewater resulting from the Project uses would not require treatment beyond that provided by existing EMWD facilities. Project compliance in these regards would act to preclude violation of waste discharge requirements.

Based on the preceding discussion, the potential for the Project to violate any waste discharge requirements is determined to be less-than-significant.

Level of Significance: Less-Than-Significant.

Potential Impact: *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding or substantial erosion or siltation on- or off-site; or create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or otherwise substantially degrade water quality.*

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Impact Analysis:

Project Stormwater Management System Addresses Potential Hydrologic Impacts

The Project incorporates all necessary drainage and stormwater management systems, and would comply with all stormwater system design, construction, and operational requirements mandated under the City Municipal Code and pursuant to policies and regulations established by other agencies including: RCFCWCD, SARWQCB, and SWRCB. In combination, the Project's stormwater management components, and compliance with regulatory requirements would act to preclude potentially adverse drainage and stormwater runoff impacts.

At present, stormwater runoff from the majority of the Project site sheet flows easterly/southeasterly across the site to Indian Street. Under post-development conditions, the Project stormwater management system would convey and discharge stormwater runoff in a manner comparable to pre-development discharge patterns.

Under developed site conditions, stormwater runoff would sheet flow to on-site drainage swales and cross gutters and would be directed easterly/southeasterly to bio-retention basins located along the site's easterly and southerly boundaries. The bio-retention basins have been designed consistent with applicable WQMP requirements for the Project. More specifically, pursuant to the September 2011 RCFCWCD *Design Handbook for Low Impact Development (LID) Best Management Practices*, design specifications and performance standards, the total required Volume-based BMP (V_{BMP}) retention capacity for the Project is approximately 31,257 cubic feet. The Project bio-retention basins are designed to provide an estimated 33,274 cubic feet of retention capacity (Project Drainage Study, p. 1) and therefore comply with RCFCWCD LID specifications and requirements. Maximum drawdown times for these basins would not exceed 48 hours. Please refer also to the Project WQMP presented at EIR Appendix G.

The Project bio-retention basins would then discharge via an underground storm drain system connecting to the existing MDP storm drain located in adjacent Indian Street. This

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storm drain has been designed and constructed in anticipation of stormwater discharges that would result from development such as that proposed by the Project.

All Project stormwater management system improvements would be constructed by the Project Applicant, or would otherwise be assured (via Project Conditions of Approval or other means established by the Lead Agency) to be in place and operational prior to issuance of the first Certificate of Occupancy for the Project.

The Project stormwater management system would be developed and operated in compliance with City, RCFCWCD, SARWQCB, and SWRCB polices and regulations and water quality performance standards. The Project would provide connection to existing and proposed drainage systems in the least invasive manner possible. Design, configuration, and locations of proposed drainage system improvements would be reviewed and approved by the City and RCFCWCD prior to, or concurrent with, application for grading permits.

Based on the preceding, implementation of the Project stormwater management system would maintain existing drainage patterns and would not increase runoff in a manner which would exceed the capacity of the existing or planned stormwater drainage systems.

Project SWPPP and Compliance with Regulatory Requirements Address Potential Construction-Source Water Quality Impacts

During site preparation activities prior to construction, existing groundcover would be removed from the site, exposing the Project site to increased wind and water erosion potentials. Further, construction site stormwater runoff may carry increased loads of sediment, heavy metals and petroleum hydrocarbons (from construction equipment operations) which could degrade water quality. In accordance with NPDES and SWPPP requirements, the Project Applicant would be required to prepare a construction activities erosion control plan to alleviate potential sedimentation and stormwater discharge contamination impacts that could result from Project construction activities.

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The Project Applicant would also be responsible for compliance with the General Construction NPDES permit from the SARWQCB by filing a Notice of Intent to Commence Construction Activities. Under the General Construction Permit, discharge of materials other than stormwaters is prohibited. The Project Applicant would be required to prepare, retain at the construction site, and implement a SWPPP which identifies the sources of sediments and other pollutants that affect the quality of stormwater discharge, and implement practices to reduce sediment and other pollutants to stormwater discharge. The SWPPP would identify both construction and post-construction BMPs to reduce sediments and other pollutants.

Implementation of the Project SWPPP and compliance with applicable NPDES and SARWQCB requirements would ensure that potential construction-source water quality impacts of the Project are reduced below the level of significance. Mitigation Measure 4.6.1 (presented subsequently) is incorporated to ensure timely monitored compliance with Project SWPPP, NPDES, and SARWQCB requirements.

Project WQMP and Compliance with Regulatory Requirements Address Potential Operational-Source Water Quality Impacts

Over the life of the Project, contaminants such as oil, fuel and grease that are spilled or left behind by vehicular traffic, would collect and concentrate on paved surfaces. During storm events, these contaminants are washed into the storm drain system and may potentially degrade receiving water quality. Stormwater runoff from paved surfaces within the developed Project area could carry a variety of urban wastes, including greases and oils and small amounts of metals which are common by-products of vehicular travel. In addition, storm runoff would likely contain residual amounts of fertilizers and plant additives washed off from landscaped areas within the Project site.

Recognizing the potential hazards of such urban runoff, the EPA has issued regulations which require municipalities to participate in the NPDES. As part of this program, the SARWQCB has issued an NPDES permit for urban runoff to the RCFCWCD, and the City of Moreno Valley has been established as a co-permittee. Compliance with the provisions

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specified in the NPDES permit ensures proper management and disposal of urban runoff from the Project.

The Project Applicant would be responsible for obtaining a General Permit for stormwater discharge from the SARWQCB, in accordance with the Notice of Intent instructions. Under the General Permit, discharge of materials other than stormwater is prohibited. In support of the above requirements, the Project Applicant would also be required to develop and implement a Project-specific WQMP addressing all post-construction pollutant discharges. A draft of the Project WQMP is included at EIR Appendix G. As required under Mitigation Measure 4.6.2, below, the Project would be required to submit a final WQMP prior to the issuance of grading permits.

Based on compliance with applicable NPDES requirements, and implementation of the Project WQMP to include any additional requirements stipulated by the City and/or SARWQCB the potential for the Project to result in a potential for discharge of stormwater pollutants from post-construction activities; otherwise result in any other potential impacts to stormwater runoff from post-construction activities; or otherwise substantially degrade water quality would be reduced below the level of significance. Mitigation Measure 4.6.2 (presented subsequently) is incorporated to ensure timely monitored compliance with Project WQMP, NPDES, and SARWQCB requirements.

Level of Significance: Less-Than-Significant. As supported by the preceding discussions, the Project would implement stormwater management system improvements and comply with all regulatory requirements acting to reduce potential impacts related to or affecting the rate or amount of surface runoff; erosion or siltation on- or off-site; capacity exceedance of existing or planned stormwater drainage systems; introduction of substantial additional sources of polluted runoff; or otherwise substantially degrade water quality is determined to be less-than-significant. Mitigation Measures 4.6.1 and 4.6.2 (below) are incorporated to ensure timely monitored compliance with Project SWPPP, WQMP, NPDES, and SARWQCB requirements.

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Mitigation Measures:

4.6.1 *Prior to grading plan approval and the issuance of a grading permit by the City of Moreno Valley, the Project Applicant shall provide evidence to the City that a notice of intent (NOI) has been filed with the Regional Water Quality Control Board for coverage under the State NPDES General Construction Permit for discharge of stormwater associated with construction activities. The SWPPP shall identify Best Management Practices (BMPs) intended to prevent the release of sediment and pollutants into downstream waterways. Examples of construction BMPs to be incorporated in the Project include, but are not limited to, the following:*

- *Silt Fences;*
- *Check Dams;*
- *Gravel Bag Berms;*
- *Street Sweeping and Vacuuming;*
- *Sand Bag Barriers;*
- *Storm Drain Inlet Protection;*
- *Wind Erosion Control;*
- *Stabilized Construction Entrance/Exit; and*
- *Entrance/Outlet Tire Wash.*

Post-construction BMPs to reduce sediments and other pollutants include, but are not limited to, the following:

- *Providing permanent cover to stabilize the disturbed surfaces after construction has been completed;*
- *Incorporating structural BMPs (e.g., grease traps, debris, screens, continuous deflection separators, oil/water separators, drain inlet inserts) into the Project's design to provide detention and filtering of contaminants in urban runoff prior to discharge to stormwater facilities;*
- *Precluding non-stormwater discharges to the stormwater system; and*
- *Performing monitoring of discharges to the stormwater system.*

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4.6.2 *Prior to the issuance of grading permits, the Project Applicant shall submit a final Water Quality Management Plan (WQMP) to the City of Moreno Valley. The WQMP shall identify Best Management Practices (BMPs) addressing all post-construction pollutant discharges. Examples of BMPs included in the Project's Preliminary WQMP include the following:*

Source Control/Non-Structural BMPs

- *Education of property owners, operators, tenants, occupants, or employees;*
- *Street Sweeping of Private Streets and Parking Lots;*
- *Drainage facility inspection and maintenance;*
- *Roof Runoff Controls;*
- *Efficient Irrigation;*
- *Protection of Slopes and Channels;*
- *Storm Drain stenciling and signage;*
- *Trash Storage Areas and Litter Control;*
- *Irrigation system and landscape maintenance; and*
- *Loading dock drainage controls.*

Site Design/Structural BMPs

- *Maximize permeable areas;*
- *Minimize street, sidewalk, and parking lot aisle widths;*
- *Maintain natural drainage patterns;*
- *Incorporate drought-tolerant landscaping;*
- *On-site ponding areas or retention facilities to increase opportunities for infiltration;*
- *Convey roof runoff to landscaping/permeable areas prior to discharge to storm drains;*
- *Drain sidewalks and walkways to adjacent landscaped areas; and*
- *Integration of landscaping and drainage designs.*

Conclusion

Based on site-specific hydrologic modeling presented at EIR Appendix G, the Project stormwater management system concept incorporates those improvements and

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operational elements necessary to adequately collect and convey on- and off-site stormwaters resulting from development of the Project site. Mitigation Measures 4.6.1 and 4.6.2 are incorporated to ensure timely monitored compliance with Project SWPPP, WQMP, NPDES, and SARWQCB requirements acting to reduce the potential for the Project to: substantially alter the existing drainage pattern of the site or area; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; result in substantial erosion or siltation on- or off-site; create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems; provide substantial additional sources of polluted runoff; or otherwise substantially degrade water quality to levels that would be less-than-significant.

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4.7 BIOLOGICAL RESOURCES

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4.7 BIOLOGICAL RESOURCES

Abstract

This Section identifies and addresses potential impacts to biological resources resulting from the Project. More specifically, the analysis presented here examines whether the Project would:

- *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife (CDFW, formerly California Department of Fish and Game) or United States Fish and Wildlife Service (USFWS);*

- *Have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or California plans, policies or regulations or by the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS);*

- *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or*

- *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.*

As supported by the analysis presented in this Section, with application of proposed mitigation measures, the Project's potential impacts to biological resources are determined to be less-than-significant.

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4.7.1 INTRODUCTION

Following are discussions of existing biological resources characteristic of the Project area, with focused consideration on species of special interest known to occur, or that could potentially occur on the Project site. Potential impacts to biological resources are identified, and mitigation of potentially significant impacts is proposed. Information presented in this Section is summarized and excerpted from: *Biological Property Evaluation for Sensitive Biological Resources for a Proposed Project Located at 17845 Indian Street Located in the City of Moreno Valley, Riverside County, California* (Michael Baker International) August 21, 2015 (Project Biological Resources Report). The Project Biological Resources Report is included in its entirety at EIR Appendix H.

4.7.2 SETTING

4.7.2.1 Overview

The Project site occurs in an area that has been converted from natural habitats into industrial land uses. On-site and surrounding land uses have heavily disturbed, if not completely eliminated, most of the naturally-occurring habitats around the surrounding area, reducing the suitability of the habitat to support sensitive plant and wildlife species. The Project site is relatively flat with no areas of significant topographic relief. Site topography ranges from an elevation of approximately 1,464 to 1,468 feet above mean sea level (msl).

A literature review and records search was conducted to determine which sensitive biological resources have the potential to occur on or within the general vicinity of the Project site. This review included database records from the California Natural Diversity Database (CNDDB); the California Native Plant Society (CNPS) Inventory of Rare, Threatened, and Endangered Plants of California; the California Department of Fish and Wildlife (CDFW) lists of special-status species; and United States Fish and Wildlife Service (USFWS) species listings. In addition to literature/database reviews, a field survey of the Project site was also conducted.

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4.7.2.2 Biologic Setting

The following discussions provide the existing biologic setting for the Project site.

Vegetation

As a result of routine maintenance and weed abatement activities, undisturbed native plant communities are no longer present within the boundaries of the Project site. The site consists of a heavily disturbed, undeveloped field that is dominated by tumbleweed (*Salsola tragus*). A small number of ornamental pines (*Pinus* sp.) and Chinaberry (*Melia azedarach*) trees are found in the southwestern portion of the Project site.

Wildlife

The Project site provides limited habitat for wildlife species adapted to a high degree of human presence and development. The majority of the wildlife observed during the habitat assessment consisted of avian species. Six (6) avian species were detected which included house finch (*Haemorhous mexicanus*), black phoebe (*Sayornis nigricans*), mourning dove (*Zenaida macroura*), western kingbird (*Tyrannus verticalis*), rock pigeon (*Columba livia*), and Anna's hummingbird (*Calypte anna*).

No mammals or reptiles were detected during the habitat assessment. However, mammalian species expected to occur on the Project site are those adapted to continual human presence and development (e.g., California ground squirrel [*Otospermophilus beecheyi*], and deer mouse [*Peromyscu*s sp.]). Reptilian species expected to occur include western fence lizard (*Sceloporus occidentalis*), alligator lizard (*Elgaria coerulea*), and side-blotched lizard (*Uta stansburiana*).

Nesting Birds

On-site vegetation provides limited nesting opportunities for avian species; no nesting birds or breeding behaviors were observed during the field survey. The Project site has the potential to provide suitable nesting opportunities for ground-nesting avian species (e.g., killdeer [*Charadrius vociferous*]). However, the disturbed nature of the Project site and its routine maintenance activities greatly reduces the potential for birds to nest on-site.

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Special-Status Species

Based on a review of CNDDB and CNPS, fifteen (15) special-status plant species and forty-two (42) special-status wildlife species were identified as having the potential to occur within the general vicinity of the Project site. No CDFW sensitive habitats were identified as occurring within the general vicinity. Species determined to have the potential to occur on-site are presented at Attachment D to the Biological Resources Report. Attachment D provides details of the analysis and field surveys regarding the potential occurrence of listed and special-status plant and wildlife species within the Project site.

Sensitive Plants

The Project site is heavily disturbed from routine weed abatement activities. Based on habitat requirements for specific species and the availability and quality of habitats needed by each sensitive plant species, it was determined that the Project site does not provide suitable habitat that would support any likely known occurring CNDDB, CNPS, or MSHCP listed plant species.[1]

Sensitive Wildlife

Based on the results of the habitat assessment, it was determined that the Project site has a low potential to support Cooper's hawk (*Accipiter cooperii*) foraging and a low potential to support the burrowing owl. All other special-status wildlife species are presumed absent. The Cooper's hawk, if present in the area, would be transient to the Project site and moreover would seek more productive foraging areas. Mitigation is included to ensure that the Project would not adversely affect the burrowing owl.

Migratory Corridors and Linkages

Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear

[1] Previously recorded occurrences of special-status plant and wildlife species and their proximity, specifically within 2 miles, to the Project site were determined through a query of the CDFWs CNDDB Rarefind 5 software, the California Native Plant Society's (CNPS) Electronic Inventory of Rare, Threatened, and Endangered Plants of California, Calflora Database, compendia of special-status species published by the CDFW, and United States Fish and Wildlife Service (USFWS) species listings.

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landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The Project site is surrounded by developed properties, which has removed any existing vicinity natural plant communities. Project development activities would be limited to previously disturbed areas. There are no riparian corridors, creeks, or substantive habitat areas within or connecting to the Project site. The Project would not disrupt or have any adverse effects on any migratory corridors or linkages that may occur in the general vicinity of the Project. Additionally, the Project site is not located within any MSHCP identified corridor or linkage.

Jurisdictional Areas

No jurisdictional drainage features or isolated wetland features that would qualify as "waters of the United States" or "waters of the state" were observed within the Project site. The Project, therefore, will not require regulatory permits from any regulatory agencies.

4.7.3 EXISTING POLICIES AND REGULATIONS

4.7.3.1 Federal Endangered Species Act/California Endangered Species Act

The United States Congress passed the Federal Endangered Species Act (ESA) in 1973 to protect those species that are endangered or threatened with extinction. The State of California enacted a similar law, the California Endangered Species Act (CESA) in 1984. The State and Federal Endangered Species Acts are intended to operate in conjunction with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend. The United States Fish and Wildlife Service (USFWS) is responsible for implementation of ESA, while the CDFW implements CESA. During Project review, each

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agency is given the opportunity to comment on the potential for the Project to affect listed plants and animals.

4.7.3.2 State of California, Fish and Game Code Section 1600 *et seq.*

The CDFW has jurisdiction under Section 1600 *et seq.* of the California Fish and Game Code over fish and wildlife resources of the state. Under Section 1602, a private party must notify the CDFW if a project will "substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds, except when the department has been notified pursuant to Section 1601." If an existing fish or wildlife resource may be substantially adversely affected by the activity, the CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the initiating party, they may enter into an agreement with the CDFW identifying the approved activities and associated mitigation measures.

4.7.3.3 Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP), focusing on conservation of species and their associated habitat in western Riverside County. The goal of the MSHCP is to maintain biological and ecological diversity within a rapidly urbanizing region. The MSHCP is administered by the Riverside County Regional Conservation Authority (RCA).

The MSHCP allows participating jurisdictions within the plan area to incorporate projects onto the incidental "take" permit for all species covered by the MSHCP, including State and federally listed species as well as other identified sensitive species and/or their habitat. Each city or local agency imposes a Development Mitigation Fee for projects within their jurisdiction.

Payment of the mitigation fee and compliance with the requirements of the MSHCP are intended to provide full mitigation under CEQA, although certain areas within the MSHCP boundaries require additional surveys to determine the presence or absence of specific

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MSHCP-covered resources, including sensitive plants, burrowing owls, and riparian or riverine areas. Depending upon the outcome of the survey(s), the area could be considered occupied suitable habitat and, if it is unfeasible to conserve at least 90 percent of this area, then the applicant must submit an analysis supporting a Determination of Biologically Equivalent or Superior Preservation (DBESP). The DBESP discussion details the reasons that avoidance is not possible, quantifies unavoidable impacts, proposes project design features and mitigation measures that reduce indirect effects, and demonstrates that the project would be biologically equivalent or superior to avoidance. The Project is required by ordinance to, and would comply with the MSHCP (City of Moreno Valley Municipal Code Chapter 3.48, *Western Riverside County Multiple Species Habitat Conservation Plan Fee Program*). At Building Permit Issuance, MSHCP fees shall be paid based on the current fee in place at the time of issuance.

4.7.3.4 Habitat Conservation Plan for the Stephens' Kangaroo Rat (SKR) in Western Riverside County, California" (SKRHCP)

The City of Moreno Valley has adopted "The Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California" (SKRHCP) and has been issued an incidental take permit for SKR from the United States Fish and Wildlife Service and a Management Authorization from the California Department of Fish and Wildlife. Mitigation for impacts to SKR and SKR habitat is realized through payment of SKR Impact Mitigation Fees. The Project is required by ordinance to, and would comply with the SKR Impact Mitigation Fee requirements (City of Moreno Valley Municipal Code Chapter 8.60, *Threatened and Endangered Species*). Prior to any disturbance of the site/grading permit issuance, Stephen's Kangaroo Rat (SKR) Impacts Mitigation fees shall be paid based on the current fee in place at the time of lands disturbance.

4.7.3.5 Other Statutes, Codes, and Policies

In addition to ESA and CESA listings, plant and wildlife species receive consideration during the CEQA review processes, as discussed below.

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Species of Special Concern

Species of Special Concern are generally defined as those California species whose numbers, reproductive success, or habitat may be threatened. Potential impacts to Species of Special Concern receive consideration under CEQA review.

CNPS-Listed Plants

The California Native Plant Society (CNPS) maintains a list of plant species native to California with minimal populations, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review.

Raptors and Migratory Birds

Raptors (birds of prey), migratory birds, and other avian species are protected by state and federal laws. The federal Migratory Bird Treaty Act (MBTA) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior. Section 3503.5 of the California Fish and Game Code states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Potential impacts to raptors and migratory birds receive consideration under CEQA review.

4.7.4 STANDARDS OF SIGNIFICANCE

CEQA has identified the following significance thresholds relative to biological resources. If the Project would result in any one of the following, its impacts to biological resources would be considered significant.

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife (CDFW; formerly California Department of Fish and Game, CDFG) or United States Fish and Wildlife Service (USFWS);

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- Have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or California plans, policies or regulations or by the CDFW or USFWS;

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means;

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance; or

- Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.7.5 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.7.5.1 Introduction

The following discussions focus on those areas where it has been determined that the Project may result in potentially significant biological resources impacts, based on the analysis presented within this Section; analysis included within the EIR Initial Study (EIR Appendix A), and responses received pursuant to the EIR Notice of Preparation.

Of the CEQA threshold considerations identified above at Section 4.7.4, and as substantiated in the Initial Study (EIR Appendix A), the Project's potential impacts under the following topics are determined to be less-than-significant, and are not further substantively discussed here:

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- Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance; or

- Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

All other CEQA topics concerning the Project's potential impacts to biological resources are discussed below. Please refer also to Draft EIR Appendix A, Initial Study Checklist Item IV., *Biological Resources*.

4.7.5.2 Impact Statements

Potential Impact: *Substantially affect, either directly or through habitat modifications, any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife (CDFW, formerly California Department of Fish and Game) or United States Fish and Wildlife Service (USFWS).*

Impact Analysis: As previously stated, no special-status plant or wildlife species were identified at the Project site during the field survey. Due to extensive disturbance of the Project site, no special-status plant species are considered to be present onsite. Thus, no potentially significant impacts to special-status plant species are anticipated as a result of site development. Due to the absence of native vegetation and the disturbance at the Project site, special-status wildlife species are unlikely to be present at the Project site.

Existing and proposed industrial development, as well as ongoing human activities, effectively isolated the Project site from connecting to undisturbed, natural habitats still available in the area. The isolation and disturbance level of the Project site limits the site's viability to provide suitable habitat for sensitive biological resources (i.e., sensitive plant and wildlife species, drainage features).

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No nesting birds were observed and, given the heavy level of disturbance and routine maintenance activities, none are expected to occur. However, the Project site has the potential to provide suitable nesting opportunities for ground-nesting avian species (e.g., killdeer (*Charadrius vociferous*)). Additionally, the ornamental pines and Chinaberry trees located on the southwestern portion of the Project site have the potential to provide suitable nesting opportunities for avian species. Further, the Project site and surrounding properties may provide limited potential habitat for the burrowing owl. Mitigation Measures 4.7.1 and 4.7.2 (following) has been incorporated to ensure avoidance of any potential impacts, in accordance with MBTA and California Fish and Game Code requirements. With the implementation of Mitigation Measures 4.7.1, and 4.7.2, the Project's potential impacts to nesting migratory bird species and the burrowing owl are considered less-than-significant.

Level of Significance before Mitigation: Potentially Significant (impacts to nesting birds and the burrowing owl).

Mitigation Measures:

4.7.1 To avoid impacts to nesting birds and to comply with the federal Migratory Bird Treaty Act of 1918 (MBTA):

- *If possible, all vegetation removal activities shall be scheduled from August 1 to February 15, which is outside the nesting season. This would ensure that no active nests would be disturbed and that removal could proceed rapidly.*

- *If vegetation is to be cleared during the nesting season (February 15 – July 31), all suitable habitat shall be thoroughly surveyed for the presence of nesting birds by a qualified biologist 72 hours prior to clearing. If any active nests are detected, the area shall be flagged and mapped on the construction plans along with a minimum 50-foot buffer and up to 300 feet for raptors, with the final buffer distance to be determined by the qualified biologist. The buffer area shall be avoided until the nesting cycle is complete or it is determined that the nest has failed. In*

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addition, the biologist will be present on the site to monitor the vegetation removal to ensure that any nests, which were not detected during the initial survey, are not disturbed.

4.7.2 *Within 30 days prior to grading, a qualified biologist shall conduct a Project site survey and make a final determination regarding the presence or absence of the burrowing owl. The determination shall be documented and shall be submitted, reviewed, and accepted by the City of Moreno Valley Planning Division prior to the issuance of a grading permit. Survey documentation shall incorporate following provisions:*

- *In the event that the pre-construction survey identifies no burrowing owls on the property, a grading permit may be issued without restriction.*
- *In the event that the pre-construction survey identifies the presence of burrowing owl(s,) the Applicant shall implement incumbent CDFW burrowing owl mitigation protocols.*

Level of Significance after Mitigation: Less-Than-Significant.

Potential Impact: *Have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or California plans, policies or regulations or by the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS); Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*

Impact Analysis: No wetlands, riparian habitat or other sensitive communities exist within the Project site. Nor does the Project propose uses or activities that would substantially or adversely affect any off-site wetlands or riparian areas. As such, the Project will not affect any riparian habitat, any other sensitive natural community, or federally protected wetlands.

Level of Significance: Less-Than-Significant.

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Potential Impact: *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.*

Impact Analysis: During preparation of the MSHCP, wildlife corridors and habitat linkages throughout western Riverside County were analyzed extensively. No MSHCP wildlife habitat linkages or movement corridors were identified at the Project site. Nor does the Project propose facilities or activities that would substantively and adversely affect any offsite designated wildlife habitat linkage or movement corridor. Based on the preceding, impacts to wildlife corridors, habitat linkages, or wildlife nursery sites that would occur as a result of the Project are determined to be less-than-significant.

Level of Significance: Less-Than-Significant.

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4.8 CULTURAL RESOURCES/TRIBAL CULTURAL RESOURCES

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4.8 CULTURAL RESOURCES/ TRIBAL CULTURAL RESOURCES

Abstract

This Section examines the potential for implementation of the Project to impact cultural and historic resources in the Project area. Of primary concern are the protection of historic cultural resources, and conservation of known or currently unknown (buried or undiscovered) archaeological and paleontologic resources that may be present in locations proposed for future development. Specifically, this analysis seeks to determine whether the Project would result in any of the following:

- *Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5;*
- *Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5;*
- *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or*
- *Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074.*

Information contained within this Section is based on A Phase I Cultural Resources Survey for the Proposed Commercial Development (Approximately 20 Acres) in the City of Moreno Valley, Riverside County, California (McKenna et al.) February 21, 2016. *In order to protect the location of sensitive cultural resources that may be identified as part of the Project Cultural Resources Survey, a copy of the report has not been included in this EIR. Copies are available, upon request, at the City of Moreno Valley Planning Department. As supported by the analysis presented in this Section, as mitigated, the Project's potential to impact cultural resources is determined to be less-than-significant.*

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4.8.1 INTRODUCTION

Cultural resources can be of scientific, aesthetic, educational, archaeological, architectural, or historical significance to the community. The following discussion identifies and classifies the significance of prehistoric and/or historic cultural resources which may exist on the subject site, and assesses the Project's potential to impact such resources.

4.8.2 SETTING

4.8.2.1 Regional

The Project area is directly associated with the Moreno Valley which is a northwestern extension of both the San Jacinto Valley and Perris Valley, and is associated with geology of the larger Perris Plain, extending west from the San Jacinto Mountains. The Moreno Valley (and San Jacinto Valley and Perris Plains) are described as:

> "... a broad, nearly flat surface dotted with bedrock hills ... this plain has an average elevation of about 520 meters (1700 feet) ... The numerous bedrock hills that interrupt its surface have been described as residual knobs of resistant rock, which survived prolonged erosion (monadnocks). It has been suggested that a surface of low relief was developed on the crystalline bedrock, leaving behind the scattered monadnocks."[1]

The Moreno Valley is equated with the geomorphologic Peninsula Ranges of Southern California with Cretaceous and pre-Cretaceous materials that include limestone, schist, and gneiss. Igneous rock includes the intrusive gabbros, quartz diorite, tonalite, and/or granodiorite. Post-Cretaceous rocks include crystallines, sandstones, siltstones, and conglomerates. Quaternary deposits include volcanics and coastal marine terraces. Located south and west of the San Jacinto Mountains, this general area is known to contain banded gneiss and quartz diorite, including great fossil landslides. Hot springs, in this case associated with the San Jacinto and Elsinore Fault Zones, were known and utilized by prehistoric and historic populations.

[1] *Geology of California*, Robert M. Norris and Robert W. Webb, 1990.

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4.8.2.2 Project Site

As part of the Cultural Resources Survey, a field survey of the Project site was completed on February 10, 2016. The property was found to be relatively flat and exhibited evidence of disking, weed abatement, and some recent demolition of modern improvements. There was also evidence of commercial grade gravel used as a parking surface. There were no structures within the property, but the presence of felled power poles suggests there were once service hook-ups on the property. Vegetation consisted of short, dry grasses and weeds and a few immature trees. Overall, the surface was 70 to 80 percent visible for inspection. There was no evidence of exposed bedrock (no outcroppings or evidence of buried and broken bedrock). Furrows from the recent disking were evident. Refuse in the form of modern debris (paper, plastic, etc.) was noted along Indian Street. There was no evidence of illegal dumping or vandalism.

4.8.3 HISTORIC BACKGROUND

The Sonoran Desert is known to have been occupied during both the prehistoric and historic periods. As such, the resources were exploited and, in some cases, the terrain was altered or impacted by the human occupations. The Project area is located within an area of Riverside County that borders the traditional and ethnographic boundaries of the Luiseño Native American populations. The Luiseño are more directly associated with coastal and inland areas of present-day Orange and southern Riverside counties and their inland cultural characteristics being similar to those of the Cahuilla, a population generally associated with areas northeast of the San Jacinto Mountains.

The Luiseño are described as hunters and gatherers who lived in semi-sedentary villages, practiced a complex form of territoriality and exploitation, and are known throughout Southern California for their rock art. Exchange between the Luiseño and Cahuilla has been documented. In context, the Project area is considered a Luiseño area, though evidence of a Cahuilla presence may be identified.

Moreno Valley can be tentatively associated with numerous Native American villages and/or settlements. The Luiseño relied on intermittent drainages and springs for fresh water sources and villages were established near the natural springs. Smaller

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encampments were founded in other areas. Trails, temporary small camp sites, and other limited use areas have been recorded throughout the Valley and attest to the wide-spread use of the Valley by prehistoric man.

The Luiseño practiced a relatively complex social organization based on lineages and clans. Individual clans occupied village sites and exploited individualized territories. Interactions provided exchange in the forms of trade, marriage alliances, and social/ceremonial contact. Marriage occurred between moieties, thereby avoiding marriages between blood relatives. Clan associations were more directly related to the exploitation of resources, trade, and social interaction. Analysis of ethnographic data and archaeological data has resulted in the development of various chronologies for the Sonoran Desert, as follows.

Table 4.8-1

Chronology of the Sonoran Desert (1)

Time Period	Known as	Characteristics
10,000 to 6,000 B.C.	The Lake Mojave/San Dieguito Complex and/or Western Lithic Co-Tradition	Characterized by the presence of projectile points, large knives, chopping tools, scraper planes, and scrapers. Items associated with vegetal food processing and hunting and the presence of coniferous woodland and pluvial lakes.
6,000 B.C.-A.D. 500	Archaic or Pinto Armagosa periods	Characterized by diagnostic projectile points, leaf shaped blades, choppers, and scraper planes. Some sites exhibit a small assemblage of milling stones. A shift in climate and vegetation led to a shift in exploitation with an emphasis on vegetal resources.
A.D. 500 to Historic	unnamed	Characterized by the presence of the bow and arrow (as opposed to darts), ceramics, and cremations. Milling tools increase, including mortars and pestles. There is evidence of limited agriculture and the appearance of Shoshonean-speakers displacing local Hokan-speaking populations.

Source: *A Phase I Cultural Resources Survey for the Proposed Commercial Development (Approximately 20 Acres) in the City of Moreno Valley, Riverside County, California* (McKenna et al.) February 21, 2016.

More recent archaeological investigations in portions of the San Jacinto Valley areas suggest Native Americans can be identified in the area as early as 8,000 to 9,000 B.P. Such studies have resulted in the development of a revised general chronological sequence for these inland areas of Southern California, as follows:

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Table 4.8-2
Chronology of the Sonoran Desert (2)

Time Period	Known as
11,000-8,000 B.P.	Pleistocene/Early Holocene (Early Man) Period
8,000-5,500 B.P.	San Dieguito Period
5,500-1,500 B.P.	Millingstone/La Jolla-Pauma/Archaic/Encinitas Period
1,500-300 B.P.	Late Prehistoric/Luiseño Period

Source: *A Phase I Cultural Resources Survey for the Proposed Commercial Development (Approximately 20 Acres) in the City of Moreno Valley, Riverside County, California* (McKenna et al.) February 21, 2016.

Research oriented towards the understanding of contact between Native American populations and non-Native populations emphasizes the impacts of European contact, chronologically presented by many anthropologists and historians as follows:

Table 4.8-3
Understanding of Contact

Time Period	Period
1500s-1760s	Long distance contact with Europeans
1770s-1820s	Mission Period
1830s-1840s	Rancho Period
1850s-1870s	American Migration to California
1880s-present	Reservation Period

Source: *A Phase I Cultural Resources Survey for the Proposed Commercial Development (Approximately 20 Acres) in the City of Moreno Valley, Riverside County, California* (McKenna et al.) February 21, 2016.

The "historic" period of California history begins in 1769 with the initiation of the Mission system in San Diego and the subsequent establishment of Missions throughout Alta California. Missionization was followed by many years of sporadic settlement by Spanish populations traveling from Mexico and into Alta California. Spanish explorers, such as Pedro Fages and Juan Bautista de Anza, traveled through the San Jacinto Plains as early as 1772-1774. However, no European settlement occurred in the vicinity until after 1800.

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The first European-American settlers in western Riverside County arrived in the late 1860s and were generally concentrated in the area of San Jacinto, the oldest non-Native community in the general area. A land boom swept through much of Southern California in the 1880s and other settlements (e.g., Perris, Hemet, and Valle Vista) appeared. With respect to the Moreno Valley:

> "MORENO. When this town was first platted in 1890, the Bear Valley and Alessandro Development Co., owners of the land, announced that it would be named New Haven [RP&H Oct. 11, 1890], but on November 1, 1890, The Citrograph carried a small item that stated simply, "The new town at this end of Alessandro Valley has had its name changed from New Haven to Moreno (Spanish for Brown)" ... there was no one living there at that time, the land still being prepared ...
>
> "Moreno post office was established on February 19, 1891 ... Moreno was called "the new town on the Alessandro tract at the upper end of the Perris Valley" ... The surrounding farmland became known as MORENO VALLEY."[2]

The settlement within the Moreno Valley was sporadic and the City of Moreno Valley was not incorporated until 1984. Research through the Bureau of Land Management General Land Office records showed that this area of Riverside County was purchased in 1870. The land was later transferred to the Bear Valley and Alessandro Development Company. Alessandro was a reference to the "rich and fertile portion of the San Jacinto Valley," also purchased by the Bear Valley and Alessandro Development Company. When established, the area associated with the Bear Valley and Alessandro Development Company was part of San Bernardino County. With the division of San Bernardino County and the establishment of Riverside County in 1893, this area became part of Riverside County.

[2] *Riverside County, California, Place Names: Their Origins and Their Names* (Jane Davies Gunther) 1984.

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Research at the Riverside County archives was not possible during the Cultural Resources Survey (the archives are currently closed to research until a new archivist is hired). However, a review of historic maps and photographs was completed. The 1901 USGS Elsinore 30' map and 1943 Perris 15' map illustrate the Project area as being within the community of Val Verde with no structural improvements. A dirt road bisects the Project area (north/south axis). Val Verde is described as:

> VAL VERDE. The name, popular with land developers in the 1890s, is a contraction of the Spanish valle verde, meaning "green valley." Val Verde Tract, as it was called by owner, J.R. Nance, one of the principal promoters of Perris and one of the "capitalists" who had put the adjoining Riverside Tract [see] on the market in 1891, was platted in July, 1893. Located five miles northwest of Perris and three miles southeast of Alessandro, the property was bisected by the California Southern Railway (later Santa Fe). The railroad company built a siding and station and by November, 1893, a "fine new brick hotel" had been built [RP&H Nov. 18, 1893]. A small community grew up around the railroad station and "at one time this town was a prosperous Santa Fe shipping point, with an agent and two opera-tors. Principal crops raised were grain, grapes, potatoes, melons, alfalfa, and green vegetables. Today it is a blind siding." (Santa Fe Coast History 1940 p. 780). All vestiges of the "town" are now gone and, although the railroad siding is still in operation, the Val Verde sign has been removed. Val Verde post office was established on March 6, 1894, with James S. Williams as first postmaster, but was discontinued on August 31, 1904, when mail was sent to Perris. On December 28, 1918, the post office was reopened, but under the name of Vel Verde, and continued in operation until January 31, 1930, when mail was sent to Perris. VAL VERDE CUT, TUNNEL. Both were named for their location at Val Verde. Part of the Colorado River Aqueduct [see], the cut is a mile-long unlined canal constructed by the Metropolitan Water District in 1939 to conduct Colorado River water to Lake Mathews. It is the only section of unlined canal on the aqueduct, an economical type of construction which was

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> adequate for this purpose and also desirable because of high ground water and considerable seepage inflow from the disintegrated granite in the area. Prior to entering the cut the water has flowed through Val Verde Tunnel and several inverted syphons [MWD].[3]

The 1943 USGS Perris quadrangle appears to illustrate a dirt access road that runs between the two western parcels (19 and 20) and the two eastern parcels (57 and 77), leading to improvements further north, further suggesting these properties were held in unison.

Historic aerial photographs show the Project site as part of a larger grain field with no structures and no north/south trending dirt access road. This general condition continues until after 1978. The currently available USGS Perris quadrangle dates to 1979, indicating a structural improvement along Indian Street was a 1978-1979 improvement with no additional indications of farming. Aerial photographs show the structure was still evident in 1997, but replaced by a truck-parking area by 2005.

Historic maps indicate the north/south trending access road was still present in ca. 1965, but absent shortly thereafter. The maps dating between 1954 and 1961 illustrate a blue-line stream along the western property boundary, but absent by 1969. In summary, the Project site was agricultural during the historic period; but these activities were abandoned in ca. 1978. Shortly thereafter, and suggesting a sale of the property, a structure was erected along Indian Street. This modern improvement was demolished before 2005. Today, there is little evidence of the modern structure.

[3] *Riverside County, California, Place Names: Their Origins and Their Names* (Jane Davies Gunther) 1984.

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4.8.4 EXISTING POLICIES AND REGULATIONS

4.8.4.1 Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) requires federal agencies to consider the effects of their undertakings on historic properties. Historic properties are cultural resources (e.g., archeological sites, historic built environment features, or Native American sites) that are listed, or determined to be eligible for listing, on the National Register of Historic Places. The implementing regulations of this mandate, found in the Code of Federal Regulations (36 CFR 800), outline an involved consultative process known as the Section 106 process. The Section 106 process requires a project lead federal agency to consult with the State Historic Preservation Officer.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act, passed in 1978, serves to protect and preserve the traditional religious rights of American Indians, Eskimos, Aleuts, and Native Hawaiians. Before the Act was passed, certain federal laws interfered with the traditional religious practices of many American Indians.

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act establishes a federal policy of respect for, and protection of, Native American religious practices. It also has provisions for allowing limited access to Native American religious sites. The Act provides for the repatriation of certain items from the federal government and certain museums to the native groups to which they once belonged. The Act defines "cultural items," "sacred objects," and "objects of cultural patrimony" and establishes a means for determining ownership of these items. However, the provisions for repatriation only apply to items found on federal lands.

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Executive Order 13007 and Executive Order 13084

Executive Order 13007 requires federal agencies with land management responsibilities to allow access to and use of Indian sacred sites on public lands, and to avoid adversely affecting these sites. Executive Order 13084 reaffirms the government-to-government relationship between the federal government and recognized Indian tribes, and requires federal agencies to establish procedures for consultation with tribes. These executive orders only apply to projects that include federal undertakings.

4.8.4.2 State

CEQA and the California Register of Historical Resources

Historical resources are recognized as part of the environment under the California Environmental Quality Act (CEQA). The California Register of Historical Resources (California Register) is the authoritative guide for the State's historical resources, and properties included in the California Register are considered significant for the purposes of CEQA. The California Register includes resources listed, or formally determined eligible for listing, on the National Register of Historic Places, and some California State Landmarks and Points of Historical Interest. Properties of local significance designated under a local preservation ordinance (local landmarks or landmark districts), or that have been identified in a local historical resources inventory, may be eligible for listing in the California Register and are presumed to be significant resources for the purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC § 5024.1, 14 CCR § 4850).

An archaeological site may be considered a historical resource if it is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California (PRC § 5020.1(j)), or if it meets the criteria for listing on the California Register (14 CCR § 4850).

The *CEQA Guidelines* direct lead agencies to evaluate an archaeological site to determine if it meets the criteria for listing in the California Register. If it does, potential adverse impacts must be considered. If an archaeological site is not a historical resource, but

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meets the definition of a "unique archaeological resource" as defined in PRC §21583.2, then it should be treated in accordance with the provisions of that section.

Substantial adverse change includes demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired (PRC § 5020.1(q)). While demolition and destruction would constitute significant impacts, it is sometimes more difficult to assess when change, alteration, or relocation results in a substantial adverse change. The *CEQA Guidelines* provide that a project that alters those physical characteristics of historical resources that convey its significance (i.e., its character-defining features) can be considered to materially impair the resource's significance.

California Native American Graves Protection and Repatriation Act (2001)

The California Health and Safety Code, Division 7, Part 2, Chapter 5 (Sections 8010-8030) contains broad provisions for the protection of Native American cultural resources. The California Native American Graves Protection and Repatriation Act establishes policy to ensure that California Native American human remains and cultural items are treated with respect and dignity. The Act also provides the mechanism for disclosure and return of these items held by publicly-funded agencies and museums in California. Additionally, the Act outlines the mechanism by which California Native American tribes not recognized by the federal government may file claims for human remains and cultural items held in agencies or museums.

California Public Resources Code

The California Public Resources Code contains several sections applicable to the preservation of cultural resources and human remains. These sections detail procedures to be followed whenever Native American remains are found, and delineate the unauthorized disturbance or removal of archaeological, historical, paleontological resources, or human remains as an act punishable by law (Sections 5020, 5097.5, 5097.9-5097.996, 7050.5, 7051). As matter of law, the Project would comply with applicable provisions of the California Public Resources Code addressing preservation and protection of cultural resources and human remains.

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California Code of Regulations

Under Title 14, Division 3, Section 4308, no person shall remove, injure, disfigure, deface, or destroy any object of archeological or historical interest or value.

Tribal Consultation

A sacred lands search request was sent to the Native American Heritage Commission; a response was received on January 28, 2016. On January 29, 2016, letters were sent to 21 local Native American representatives wishing to be informed of projects within their traditional territories. One response has been received from the Rincon Band of Luiseño Indians (Tribe). In the response, the Tribe states that although the Project site is within the Luiseño Aboriginal Territory, it is not located within Rincon's Historic Boundaries. The Tribe also states that they do not have any additional information regarding the site. To date, no other responses have been received.

Assembly Bill 52 (AB 52) Tribal Cultural Resources

Enacted as of July 1, 2015, AB 52 established a new category of resources under CEQA called "tribal cultural resources" that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigations. The Bill was built on the concept that California Native American tribes have the expertise "with regard to tribal history and practices" to identify significant cultural resources. To this end, AB 52 requires early consultation in the CEQA process to ensure that local and Tribal governments, public agencies, and project proponents have information available, early in the CEQA environmental review process, for the purpose of identifying and addressing potential adverse impacts to tribal cultural resources.

AB 52 requires that the lead agency contact (in writing) all culturally affiliated tribes that could be affected by a project, within 14 days of deeming a development application complete. The notice commences a 30-day period for the tribe to request consultation. Upon receipt of a request consultation, the lead agency has an additional 30 days to begin the consultation process. AB 52 states that the consultation concludes when either "1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal resource, or 2) a party, acting on good faith and

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after a reasonable effort, concludes that mutual agreement cannot be reached." AB 52 notes that the consultation can be ongoing throughout the CEQA process.

4.8.5 STANDARDS OF SIGNIFICANCE

Consistent with the standards of significance outlined in the *CEQA Guidelines*, Project-related impacts to cultural resources would be considered potentially significant if they cause or result in any of the following:

- Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- Disturb any human remains, including those interred outside of formal cemeteries; or
- Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074.

For the purposes of CEQA, an "important archaeological, historical, or paleontological resource" is defined as follows.

A) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources.

B) A resource included in a local register of historical resources, or identified as significant in an historical resource survey, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant

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unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

C) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources, including the following:

1) A resource is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

2) A resource is associated with the lives of persons important in our past.

3) A resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values, or has yielded, or may be likely to yield, information important in prehistory or history.

4.8.6 POTENTIAL IMPACTS AND MITIGATION MEASURES

4.8.6.1 Introduction

The following analysis is focused on areas where it has been determined that the Project may result in potentially significant impacts, based on the analysis included within the Initial Study. In this regard, as substantiated in the Initial Study, the Project's potential to disturb any human remains, including those interred outside of formal cemeteries was previously determined to be less-than-significant. Please refer to EIR Appendix A,

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Initial Study Checklist Items V., *Cultural Resources* and VI., *Tribal Cultural Resources*. All other potential cultural resources impacts of the Project are discussed below.

4.8.6.2 Impact Statements

Potential Impact: *Would the Project cause a substantial adverse change in the significance of historic and archaeological resources as defined in §15064.5?*

Impact Analysis: A site-specific field survey was completed by two trained archaeological surveyors walking east/west transects originating at the northeastern corner of the property (Indian Street at Grove View Road) and proceeding from north to south. Transects averaged 15 meters apart (45 feet); where the vegetation was sparse, transects were lessened to 10 meter intervals. The survey was supplemented by field notes and a detailed photographic record. No evidence of historic or prehistoric archaeological resources was identified during the recent survey. The soils were sufficiently disturbed by years of agriculture harvesting (grains) and more recent disking and weed abatement to suggest that buried resources may have been brought to the surface, if present. The Cultural Resources Survey determined the property lacks any evidence of historic or prehistoric archaeological resources and should be considered clear of any such resources.

Level of Significance: Less-Than-Significant.

Potential Impact: *Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Impact Analysis: According to the City of Moreno Valley General Plan, as well as previous studies in the Project vicinity, the site consists of both younger and older Quaternary deposits. The older alluvial deposits have been identified as sensitive for the presence of fossils in a buried context. Therefore, excavations within the Project site could impact the older alluvial deposits and, there is a potential for the site to yield fossil specimens similar to those identified on other properties in the Moreno/San

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Jacinto/Perris Valleys areas. Although the site-specific field survey failed to identify any surface evidence of fossil specimens, the Cultural Resources Survey concluded that the site has a moderate to high level of sensitivity for paleontological resources. As such, the Survey recommended subsurface monitoring, as required by Mitigation Measure 4.8.1.

Level of Significance: Potentially Significant.

Mitigation Measure:

4.8.1 *Any excavation exceeding five feet below the current grade shall be monitored by a qualified paleontological monitor. If older alluvial deposits are encountered in shallower contexts, monitoring should be initiated once these deposits area encountered. The paleontological monitoring program should follow the local protocols of the Western Center (Hemet) and a paleontological monitoring plan should be developed prior to the ground altering activities. The extent and duration of the monitoring can be determined once the grading plan is understood and approved.*

Level of Significance After Mitigation: Less-Than-Significant.

Potential Impact: *Would the Project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?*

Impact Analysis: As previously mentioned, a sacred lands search request was sent to the Native American Heritage Commission; a response was received on January 28, 2016. On January 29, 2016, letters were sent to 21 local Native American representatives wishing to be informed of projects within their traditional territories. To date, one response has been received from the Rincon Band of Luiseño Indians (Tribe). In the response, the Tribe states that although the Project site is within the Luiseño Aboriginal Territory, it is not located within Rincon's Historic Boundaries. The Tribe also states that they do not have any additional information regarding the site.

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Should additional responses be received, consultation pursuant to AB 52 will be undertaken by the City. Additionally, the Cultural Resources Survey recommended the following mitigation to preclude impacts to tribal cultural resources.

Level of Significance: Potentially Significant.

Mitigation Measure:

4.8.2 *If previously unidentified prehistoric/Native American resources are identified, a qualified archaeologist must be notified and, in consultation with the local Native American representative(s), be recovered and analyzed in accordance with CEQA guidelines, and curated at the University of California, Riverside, Archaeological Research Unit; the Western Center; or with the appropriate Native American repository (e.g., Pechanga facility in Temecula). In addition, an archaeological monitoring program should be initiated and continued until the archaeological consultant concludes the program is no longer necessary.*

Level of Significance After Mitigation: Less-Than-Significant.

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5.0 OTHER CEQA CONSIDERATIONS

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5.0 OTHER CEQA CONSIDERATIONS

This Section of the EIR addresses other environmental considerations and topics mandated under the California Environmental Quality Act (CEQA). These topics include Cumulative Impacts, Alternatives to the Project, Growth Inducement, Significant Environmental Effects of the Project, Significant and Irreversible Environmental Changes, and Energy Conservation.

5.1 CUMULATIVE IMPACT ANALYSIS

The *CEQA Guidelines* (*Guidelines*) require that an EIR identify any significant cumulative impacts associated with a project [*Guidelines*, Section 15130 (a)]. When potential cumulative impacts are determined to be not significant, the EIR should explain the basis for that conclusion.

Cumulative impacts are "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." [*Guidelines*, Section 15355]. Thus, a legally adequate cumulative impact analysis is an analysis of a particular project viewed over time and with other related past, present, and foreseeable probable future projects, whose impacts might compound or interrelate with those of the Project considered here.

CEQA notes that the discussion of cumulative impacts should be guided by standards of practicality and reasonableness [*Guidelines*, Section 15130 (b)]. Only those projects whose impacts might compound or interrelate with those of the Project under consideration require evaluation. CEQA does not require as much detail in the analysis of cumulative environmental impacts as must be provided for the Project alone. The *Guidelines* identify two basic methods for satisfying the cumulative impacts analysis requirement: the list-of-projects methodology, and the summary-of-projections

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methodology. Because each environmental resource is affected by its surroundings in different manners, either of the two methodologies, or a combination of both, may be applied to the analysis of cumulative impacts to each resource. For example, because the approval process and construction phase of development typically takes at least one to two years, the list-of-projects method is likely to provide a more accurate projection of growth in the near term. However, this method may overstate potential cumulative impacts because the considered list-of-projects may include proposals that would never be developed. On the other hand, because development proposals are rarely publicly known until within five years of the expected development, the summary-of-projections method may provide a more accurate projection of growth over the long term. This method may not accurately predict growth in any given year, but aggregates various growth trends over the long term.

For each topical discussion, the cumulative geographic context is identified, which in turn relates to the amount and type of growth that is anticipated to occur within the geographic area under consideration. Where appropriate to the analysis in question, cumulative impacts are assessed with reference to a list of off-site "related projects," as described at *CEQA Guidelines* §15130(b). In this manner, the EIR appropriately characterizes and evaluates potential cumulative impacts.

Consistent with direction provided in the *CEQA Guidelines,* related projects considered in these cumulative analyses are "only those projects whose impacts might compound or interrelate with those of the Project under consideration." Within the context of the cumulative impacts analysis, varied criteria are employed in determining the scope and type of "cumulative projects" considered. For example, the analysis of cumulative traffic impacts evaluates the Project's traffic impacts in the context of other known or probable "related" development proposals that would discernibly affect traffic conditions within the Traffic Impact Analysis Study Area. As another example, cumulative air quality impacts are evaluated in the context of the Project's contribution to other air emissions impacts affecting the encompassing Air Basin.

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The manner in which each resource may be affected also dictates the geographic scope of the cumulative impacts analysis. For example, cumulative traffic impacts would typically be localized to the vicinity of a given project site because after a relatively short distance, traffic patterns tend to normalize; whereas cumulative air quality impacts are more appropriately analyzed within a Basin-wide context because the Basin's meteorological and geographic conditions generally define the extent of cumulative air quality considerations. Similar considerations are employed in evaluating potential cumulative impacts for each of the EIR's environmental topics.

Unless otherwise noted herein, the cumulative impact analysis ultimately evaluates effects of the Project within the context of anticipated buildout of the City as envisioned under the General Plan and related regional plans. Specific cumulative projects have also been identified where this information may be different, more detailed than that provided within the General Plan or applicable regional plans, or where such specific information otherwise benefits the cumulative impact analyses.

5.1.1 Cumulative Impact Topical Discussions

Section 15139(a) of the *CEQA Guidelines (Guidelines)* notes that:

> An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined at *Guidelines* Section 15065(c). Where a lead agency is examining a project with an incremental effect that is not 'cumulatively considerable,' a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

Cumulative impacts for each of the EIR's environmental topics are listed below:

- Transportation/Traffic;
- Air Quality;
- Global Climate Change and Greenhouse Gas Emissions;
- Noise;

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- Hazards/Hazardous Materials;
- Hydrology and Water Quality;
- Biological Resources; and
- Cultural Resources/Tribal Cultural Resources.

For other environmental topics, Project impacts have been previously determined to be less-than-significant. Under these topics, there are no known or anticipated projects or conditions, impacts of which might compound with those of the Project, and thereby result in potentially significant cumulative impacts. No further substantive analysis is provided under these topics. Please refer also to the EIR Section 1.6, *Impacts Not Found to be Potentially Significant*.

5.1.2 Related Previous Discussions of Cumulative Impacts

CEQA Guidelines Section 15130 (d) states:

> Previously approved land use documents such as general plans, specific plans, and local coastal plans may be used in cumulative impact analysis. A pertinent discussion of cumulative impacts contained in one or more previously certified EIRs may be incorporated by reference pursuant to the provisions for tiering and program EIRs. No further cumulative impacts analysis is required when a project is consistent with a general, specific, master or comparable programmatic plan where the lead agency determines that the regional or areawide cumulative impacts of the proposed project have already been adequately addressed, as defined in Section 15152(f), in a certified EIR for that plan.

The Project would realize development that is consistent with and supports land uses and development anticipated under the City of Moreno Valley General Plan. Accordingly, the following discussions of cumulative impacts rely in part on, and expand upon correlating cumulative impact analyses presented in the City of Moreno Valley General Plan EIR.

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5.2 DISCUSSION OF CUMULATIVE IMPACTS

5.2.1 Cumulative Impacts Related to Transportation/Traffic

The cumulative impact area for traffic circulation impacts is defined by the Traffic Impact Study Area (Study Area), as described in *Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA* (Urban Crossroads, Inc.) June 29, 2016 (Project TIA, TIA).

The TIA Study Area (illustrated at EIR Section 4.1, *Transportation/Traffic*, Figure 4.1-1) includes potentially affected facilities under the jurisdiction of the City of Moreno Valley, and certain facilities under the City of Perris. All potentially affected California Department of Transportation (Caltrans) and Congestion Management Program (CMP) facilities are also included within the Study Area.

Cumulative Traffic Growth

The Project TIA comprehensively reflects anticipated cumulative traffic increases affecting the Study Area and addresses related potential cumulative traffic impacts. To account for growth in traffic between Existing Conditions (2015) and the Project Opening Year (2020), a compounded annual traffic growth rate of 2 percent was assumed (10.41 percent aggregate growth in background traffic for the period 2015—2020). The 2 percent annual growth rate captures non-specific ambient traffic growth within the Study Area.

In context, the TIA's assumed 2 percent compounded annual growth rate is considered a reasonable approximation of future traffic growth when compared to demographic projections reflected in other local and regional growth modeling efforts. More specifically, the Southern California Association of Governments SCAG 2012—2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) growth forecasts for the City of Moreno Valley assume the City population to increase from

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187,400 in 2008 to 255,200 by the year 2035, or an approximate 1.15 percent growth rate compounded annually.[1] The RTP/SCS assumed growth in households over the same 27-year period reflects an increase from 51,100 households to 72,800 households; a rate of 1.32 percent compounded annually. At the upper end of assumed RTP/SCS growth rates, employment over the same 27-year period is projected to increase from 32,300 jobs to 64,400 jobs; a rate of approximately 2.59 percent compounded annually.

The 2 percent compounded annual traffic growth rate employed in the TIA reflects the fact that not all persons comprising population growth, household growth, or employment growth would translate on a one-to-one basis as a new vehicle trip in the region. The 2 percent compounded annual traffic growth rate establishes a judicious midrange estimate lying between the RTP/SCS assumed regional population growth rate (1.15 percent) and the RTP/SCS assumed regional employment growth rate (2.59 percent).

Traffic generated by other known or probable related projects was then added to the TIA ambient traffic growth estimates. These related projects are in part already accounted for in the assumed annual 2 percent increase in ambient traffic growth noted above; and in certain instances, these related projects would likely not be implemented and functional within the 2020 Opening Year time frame assumed for the Project. The resultant assumed traffic growth rate employed in the TIA (2 percent annual ambient growth + traffic generated by all related projects) would therefore tend to overstate rather than understate background cumulative traffic impacts under 2020 conditions.

[1] On March 9, 2015, SCAG, as Lead Agency, published a Notice of Preparation (NOP) of a Program Environmental Impact Report ("PEIR") for the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy ("2016 RTP/SCS"). The 2016 RTP/SCS was adopted April 7, 2016, subsequent to distribution of the EIR NOP (March 14, 2016). The 2016 RTP/SCS forecasts reflect reduced growth rates and total growth when compared to the 2012 – 2035 RTP/SCS forecasts reflected in the EIR. The EIR 2012 – 2035 RTP/SCS growth projections, and traffic impacts related to that growth are therefore likely overstated when compared to the 2016 – 2040 RTP/SCS growth projections.

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Please refer to TIA Table 4-4, *Cumulative Development Land Use Summary* for a complete listing of all cumulative development considered within the analysis.

Cumulative Impacts

Intersections

Opening Year (2020) Cumulative Intersection LOS Impacts

Under Opening Year with Project conditions, Project traffic would contribute to potentially significant cumulative LOS impacts at the Study Area Intersections listed at Table 5.2-1.

Table 5.2-1
Opening Year
Cumulatively Significant Intersection LOS Impacts

Intersection ID No.	Intersection Location
1	I-215 SB Ramps/Harley Knox Blvd.
2	I-215 NB Ramps/Harley Knox Blvd.
3	Western Way/Harley Knox Blvd.
4	Patterson Ave./Harley Knox Blvd.
7	Indian St./Grove View Rd.
10	Indian St./Harley Knox Blvd.

Source: *Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA* (Urban Crossroads, Inc.) June 29, 2016.

Mitigation

To mitigate incremental contributions to cumulative traffic impacts affecting Study Area intersections, the Project Applicant would pay requisite fees toward the construction of the necessary improvements.

Notwithstanding, payment of traffic impact fees does not ensure timely completion of those traffic improvements necessary to mitigate potentially significant cumulative traffic impacts affecting the study area. ***On this basis, pending completion of required improvements, the Project's contributions to Opening Year (2020) cumulative LOS***

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impacts at intersections identified above are considered cumulatively significant and unavoidable.

Roadway Segments

Opening Year (2020) Cumulative Roadway Segment Impacts

Roadway segment capacities were calculated based on existing travel lanes, and the associated forecasted peak hour directional traffic flows. Traffic modeling of roadway segments indicating that lane capacities could be exceeded; e.g., where the modeled roadway segment volume to capacity (V/C) ratio exceeds 1.0, would indicate that segments may experience operational deficiencies. Notwithstanding, roadway segment widening is typically employed only when the controlling intersections on either side of the affected segment indicate a requirement for additional through lanes. As summarized at Table 5.2-2, Study Area roadway segments 2, 3, 4, 9, 10, and 11 could experience certain capacity deficiencies under Opening Year Without Project and Opening Year With Project Conditions. These are potentially significant cumulative impacts.

Table 5.2-2
Opening Year
Cumulatively Significant Roadway Segment Impacts

Roadway Segment ID No.	Roadway	Segment Limits
2	Harley Knox Blvd.	I-215 NB Ramps to Western Way
3	Harley Knox Blvd.	East of Western Way
4	Harley Knox Blvd.	West of Patterson Ave.
9	Indian St.	South of Nandina Ave.
10	Indian St.	North of Grove View Rd.
11	Indian St.	South of Grove View Rd.

Source: *Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley, CA* (Urban Crossroads, Inc.) June 29, 2016.

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Mitigation

Required improvements necessary to achieve acceptable Study Area roadway segment LOS are coincident with through lane improvements required to achieve acceptable LOS at controlling intersections. Pursuant to EIR Mitigation Measure 4.1.1, the Project would pay requisite fees addressing Study Area intersection LOS deficiencies projected to occur under Opening Year-with-Project Conditions, and in so doing would address potential roadway segment deficiencies. No additional mitigation is required or recommended. Payment of fees in this manner fulfills the Project's mitigation responsibilities.

Notwithstanding, payment of traffic impact fees does not ensure timely completion of those traffic improvements necessary to mitigate potentially significant cumulative traffic impacts affecting the study area. ***On this basis, pending completion of required improvements, the Project's contributions to Opening Year (2020) cumulative impacts at roadway segments identified above are considered cumulatively significant and unavoidable.***

Freeway Facilities

Opening Year Cumulative (2020) traffic growth along the SR-91 and I-215 Freeway is anticipated to exceed the capacity of existing lanes, and would thus result in deficient LOS conditions for six Study Area freeway mainline segments under Opening Year Cumulative (2020) traffic conditions (please refer to Table 5.2-3, below). The addition of Project traffic would not, however, result in any new freeway segment deficiencies. The Project is anticipated to contribute no more than 25 peak hour one-way trips to the deficient freeway mainline segments.

Table 5.2-3
Freeway Segment Deficiencies (2020 Conditions)

1	I-215, Northbound, University Avenue to Martin Luther King Boulevard
2	I-215, Northbound, Box Springs Road to SR-60/I-215 Freeway
3	I-215, Northbound, Eucalyptus Avenue to Alessandro Boulevard
4	I-215, Northbound, Ramona Expressway to Nuevo Road
5	I-215, Southbound, Eucalyptus Avenue to Alessandro Boulevard

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Table 5.2-3
Freeway Segment Deficiencies (2020 Conditions)

6	I-215, Southbound, Ramona Expressway to Nuevo Road
7	SR-91, Westbound, Riverwalk Parkway to Magnolia Avenue

Source: *Indian Street Commerce Center Supplemental Basic Freeway Segment Analysis* (Urban Crossroads, Inc.) April 27, 2016.

Mitigation

There are no near-term solutions for the deficiencies noted above. These freeway mainline segment deficiencies are therefore projected to carry forward to the Project Opening Year Cumulative (2020) conditions evaluated in this Section. Under Opening Year Cumulative (2020) Conditions, the Project would contribute additional traffic to the noted deficient I-215 Freeway mainline segment deficiencies. Globally, Project payment of TUMF would fulfill its mitigation responsibilities for contributions for cumulative traffic impacts deficiencies affecting I-215 Freeway mainline segments. However, it is not within the jurisdictional authority or purview of the Lead Agency or Applicant to adopt, implement, or enforce mitigation measures requiring the construction of improvements by Caltrans, or upon facilities within Caltrans' jurisdiction. There are no feasible mitigation measures that would reduce cumulative freeway mainline segment impacts to levels that would be less-than-significant. The Project's contribution to Opening Year Cumulative traffic impacts affecting the I-215 Freeway is therefore considered significant and unavoidable.

Site Access

Site access driveways, traffic controls, and on-site circulation improvement concepts proposed by the Project act to reduce potential access and on-site circulation impacts. Final site access and on-site circulation designs would incorporate any additional provisions or modifications suggested within the Project TIA, or as may otherwise be required by the City. City design review processes, and any resultant modifications incorporated in the Project Final Site Plan, would ensure that potential parking, site access, and internal circulation impacts are less-than-significant. On this basis, the Project's potential contribution to cumulative impacts in regard to site access are not considerable, and the cumulative effects of the Project are determined to be less-than-significant.

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Summary

To mitigate incremental contributions to cumulative traffic impacts affecting Study Area transportation/traffic facilities the Project Applicant would pay requisite fees toward the construction of necessary improvements. Notwithstanding, payment of traffic impact fees does not ensure timely completion of those traffic improvements necessary to mitigate potentially significant cumulative traffic impacts affecting the Study Area. In these instances, while Project-specific traffic impacts would not be individually significant, they would be cumulatively significant. On this basis, pending completion of required improvements, the Project's contributions to Opening Year (2020) cumulative traffic impacts at Study Area transportation/traffic facilities identified within this Section are therefore considered cumulatively significant and unavoidable.

5.2.2 Cumulative Impacts Related to Air Quality

The cumulative impact area for air quality considerations is defined by the encompassing Air Basin, and jurisdiction of the controlling Air Quality Management District. In this case, the South Coast Air Basin (SCAB, Air Basin) and the South Coast Air Quality Management District (SCAQMD) respectively. Project emissions within the context of SCAQMD's regional emissions thresholds provide an indicator of potential cumulative impacts within the Air Basin. Due to the defining geographic and meteorological characteristics of the Air Basin, criteria pollutant emissions that could cumulatively impact air quality would be, for practical purposes, restricted to the Air Basin. Accordingly, the geographic area encompassed by the Air Basin is the appropriate limit for this cumulative Air Quality analysis.

5.2.2.1 Construction-Source Air Quality Impacts

As discussed at EIR Section 4.4, *Air Quality*, and EIR Appendix D, mitigated Project construction-source air quality impacts would be less-than-significant, and by SCAQMD criteria, not cumulatively considerable. The potential for Project construction-source emissions to result in or cause cumulatively significant air quality impacts is therefore considered less-than-significant.

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5.2.2.2 Operational-Source Air Quality Impacts

Compliance with existing regulations and application of mitigation measures proposed in this EIR would act to minimize the Project's operational-source pollutant emissions levels. However, no feasible mitigation measures exist which would reduce these impacts to levels that are less-than-significant. Even with application of mitigation, Project operational-source nitrogen oxide (NO_x) emissions would exceed applicable SCAQMD regional thresholds. By SCAQMD criteria, cumulative impacts in these regards are similarly considered significant. Operational-source NO_x emissions regional threshold exceedances are therefore determined to be individually significant and cumulatively considerable.

5.2.2.3 Non-Attainment Impacts

The Project is located within ozone and $PM_{10}/PM_{2.5}$ non-attainment areas (NO_x is a precursor to ozone and $PM_{10}/PM_{2.5}$). Over the life of the Project, operational-source NO_x emissions exceedances would result in a cumulatively considerable net increase in criteria pollutants (ozone, PM_{10} and $PM_{2.5}$) for which the encompassing region is non-attainment. These are cumulatively significant air quality impacts.

5.2.2.4 Air Quality Management Plan (AQMP) Consistency Impacts

The Project would be consistent with AQMP Consistency Criteria No. 1 and 2, and would therefore not result in cumulatively significant AQMP impacts.

5.2.2.5 CO Hot Spot Impacts

The Project would generate additional vehicular traffic, and therefore would generate mobile source emissions that could cause or contribute to adverse CO concentrations (CO "hot spots"). Potential CO hot spot impacts were evaluated in the Project Air Quality Impact Analysis (EIR Appendix C), and were determined to be less-than-significant. By SCAQMD criteria, less-than-significant CO hot spot impacts at the Project level are not cumulatively considerable.

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5.2.2.6 Toxic Air Contaminants (TACs) Emissions Impacts

Background

The South Coast Air Quality Management District (SCAQMD)[2] has conducted an analysis of the cumulative effects of Toxic Air Contaminants (TACs) within the South Coast Air Basin (Basin). This cumulative analysis, *Draft Final Report, Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-IV)* (SCAQMD) April 2015, expresses cumulative TAC impacts in terms of potential increased cancer risks.[3] MATES-IV modeling predicts an excess cancer risk of 522.63 in one million for the Project area. [4] DPM is included in this cancer risk along with all other TAC sources. DPM accounts for 68% of the total risk shown in MATES-IV.

The SCAQMD has established a significance threshold for incremental project-level TAC impacts. Specifically, if a given project would generate TACs resulting in or causing an increase in cancer risks of 10 or more incidents per million population, that project's incremental cancer risk would be considered significant. This same significance threshold (10 in one million) is applied by SCAQMD in determining whether a given project-source contribution to ambient TAC-source cancer risks is cumulatively considerable. The SCAQMD has not however established a significance threshold for ambient cumulative TAC impacts affecting the Basin. Likewise, the City of Moreno Valley (the Lead Agency) has no adopted cumulative TAC impacts significance threshold.

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[2] SCAQMD is the Responsible Agency providing guidance on applicable air quality analysis methodologies and air quality-related issues.

[3] Cancer risk refers to the probability of contracting cancer associated with exposure to a substance. It is expressed as the chance per million of a cancer case occurring. A risk of one per million, for example, would mean that in a population of one million individuals exposed over a 70-year lifetime, one additional cancer case would be expected.

[4] "MATES IV-Multiple Air Toxics Exposure Study." *South Coast Air Quality Management District*. South Coast Air Quality Management District, n.d. Web. 28 Feb. 2016. Localized background TAC-source cancer risk estimates are extrapolated from TAC monitoring data collected at 10 fixed sites within the South Coast Air Basin. *MATES-IV* extrapolates cancer risk levels throughout the Basin at 1.25 mile by 1.25 mile grids.

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Absent an established threshold for cumulative TAC impacts, the following discussion assesses whether, in the light of other available existing information, the ambient cumulative TAC-source impacts affecting the Basin and the area encompassing the Project site could be characterized as significant.

Comparing the Study Area ambient cumulative TAC-source cancer risk (522.63 per million) to the SCAQMD's established threshold for project-level TAC-source cancer risks (10 in one million), the ambient cumulative TAC-source cancer risk is approximately 52.3 times greater than the incremental risk at which project-level TAC-source cancer risks would be considered significant.

Although there is not yet an established significance threshold for ambient cumulative TAC impacts, given the magnitude by which the ambient cumulative condition exceeds SCAQMD's established project-level significance threshold (ambient cumulative TAC conditions are 52.3 times greater than the project-level threshold), the ambient cumulative condition would likely exceed whatever significance threshold may be established for cumulative impacts affecting the Basin. On this basis, and absent a prevailing threshold adopted by the Lead or Responsible Agency, ambient cumulative TAC impacts are presumed to be significant.

Related Projects Contribution to Cumulative TAC Impacts

In addition to the *MATES-IV* cumulative TAC-source cancer risk noted above, other new or proposed potential TAC-generating projects (related projects) in the Study Area could contribute to cumulative TAC impacts. These related projects, due to their recency and/or tentative nature, are not reflected in the cumulative TAC impacts identified in the *MATES-IV* study.

In consultation with the Lead Agency, related TAC-generating projects located within a one-quarter mile radius of the Project were identified and are reflected in this cumulative TAC analysis. The one-quarter mile radius encompassed within the cumulative TAC analysis reflects CARB and South Coast District analyses indicating an 80-percent drop-off in TAC concentrations at approximately 1,000 feet from the TAC source under

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consideration (California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective.* 2005.) Beyond 1,000 feet, the TAC emissions would be reduced and diffused such that they would not substantively and discernibly contribute to or interact with TAC emissions from other distinct sources. The one-quarter mile (1,320 feet) Study Area radius employed in the Project HRA therefore encompasses and extends beyond the distance at which related projects would generate TACs that would likely interact with TACs generated by the proposed Indian Street Commerce Center Project. The related projects listed below were selected based on their propensity to generate TACs that would contribute to, or interact with, TACs generated by the Project.

- PA 06-0152 & PA 06-0153 (First Park Nandina I & II) (483,767 square feet of high-cube warehouse);
- First Inland Logistics Center (400,130 square feet of high-cube warehouse);
- PA 09-0004 (Vogel) & Sares Regis (2,400,000 square feet of high-cube warehouse);
- First Nandina Logistics Center (1,450,000 square feet high-cube warehouse);
- First Park Nandina III & Moreno Valley Commerce Park (1,046,282 square feet of high-cube warehouse);
- IDS/Real Estate Group - Nandina Distribution Center (697,000 square feet of high-cube warehouse);
- Moval Assemblage (459,945 square feet of high-cube warehouse);
- SP 341; PP 21552 (Majestic Freeway Business Center) (6,100,715 square feet of high-cube warehouse);
- PP 20699 (Oleander Business Park) (1,206,710 square feet of warehouse);
- 05-0113 (IDI) (1,750,000 square feet of high-cube warehouse);
- P 07-09-0018 (170,000 square feet of warehouse);
- P 05-0411 (Concrete Batch Plant) (2,000 square feet of manufacturing);
- P 04-0343 (41,650 square feet of warehouse);
- PM 34199 & DPR 05-0387 & DPR 05-0452 & TPM 34697 & DPR 06-0396 (103,754 square feet of general light industrial use and 191,023 square feet of warehouse); and
- Integra Pacific Industrial Facility (880,000 square feet of high-cube warehouse).

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Project Contribution to Cumulative TAC Impacts

Project-source TACs would incrementally increase the background cancer risk by a maximum of 0.47 incidents per million population. The applicable SCAQMD significance threshold for Project-level TAC-source cancer risk impacts is 10 incidents per million population. Similarly, SCAQMD significance thresholds state that project contributions to cumulative TAC-source cancer risks would be cumulatively considerable if greater than 10 incidents per million population would occur. The 0.47 incidents per million population increment resulting from the Project is therefore not significant, nor cumulatively considerable.

Study Area Cumulative TAC Impacts

To provide context for and quantify cumulative TAC effects within the Study Area, the Project TAC-source cancer risk was added to the total background risk derived from the *MATES-IV* study, yielding a maximum potential cumulative TAC-source risk affecting the Study Area. As indicated at Table 5.2-4, the maximum potential cumulative cancer risk within the Study Area is estimated at 839.36 incidents per million.

Table 5.2-4
Study Area Cumulative Cancer Risk

Cumulative Impact Scenario	Risk Sources			Maximum Cumulative Risk
	Background TACs	Related Projects TACs	Project TACs	
	Cancer Risk Per Million Population			
Ambient Cumulative Impact	522.63	---	---	**522.63**
Cumulative Impact With Project Alone	522.63	---	0.47	**523.10**
Cumulative Impact With Project and Related Projects	522.63	316.26	0.47	**839.36**

Source: *Indian Street Commerce Center Mobile Source Diesel Health Risk Assessment, City of Moreno Valley, California* (Urban Crossroads, Inc.) July 7, 2016.
Notes: Background TAC risk from: *MATES-IV Carcinogenic Risk Interactive Map* http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iv

The *MATES-IV* ambient cumulative TAC impact represents approximately 62.3 percent of the total cumulative impact identified at Table 5.2-4; and due to its magnitude when

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compared to project-level TAC impact significance thresholds, is presumed to be cumulatively significant. The Project would incrementally contribute to this presumably significant cumulative impact. However, the Project's maximum incremental contribution of 0.47 incidents per million population does not exceed, or even approach the established SCAQMD threshold (10 incidents per million population) at which project-level TAC contributions would be determined cumulatively considerable. On this basis, Project TAC emissions impacts are not considered cumulatively considerable. Please refer also to the Project Air Quality Impact Analysis (AQIA) and Project Health Risk Analysis (HRA) presented at EIR Appendix C.

5.2.3 Cumulative Impacts Related to Greenhouse Gas Emissions/Global Climate Change

CEQA emphasizes that the effects of greenhouse gas emissions are cumulative, and should be evaluated in the context of CEQA's requirements for cumulative impacts analysis (*CEQA Guidelines* Section 15130(f)). In this regard, the Project Greenhouse Gas (GHG) Analysis (EIR Appendix D) is by its nature a cumulative analysis.

As demonstrated in the Project Greenhouse Gas Analysis and the information presented at EIR Section 4.3, *Global Climate Change and Greenhouse Gas Emissions*, the Project would generate GHG emissions exceeding the City's threshold condition of 10,000 MTCO2e/year. On this basis, Project GHG emissions would be cumulatively considerable and significant. Further, the Project GHG analysis demonstrates that Project GHG emissions would not conform to GHG emissions reductions target established under AB32, and on this basis, Project GHG emissions would also be cumulatively considerable and significant.

Mitigation

EIR Section 3.0, *Project Description*, 3.4.10, *Energy Efficiency/Sustainability* (excerpted below) summarizes features and attributes that would act to reduce Project GHG emissions.

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3.4.10 Energy Efficiency/Sustainability

Energy-saving and sustainable design features and operational programs would be incorporated into all facilities developed pursuant to the Project. Notably, the Project in total would provide sustainable design features necessary to achieve a "Certified" rating under the United States Green Building Council's Leadership in Energy & Environmental Design (LEED) programs. The Project also incorporates and expresses the following design features and attributes promoting energy efficiency and sustainability.

- The Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provider that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City. All on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines.

- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:

    - Sidewalks along the Project site's Indian Street frontage would be constructed as part of the Project, and would connect to existing and planned sidewalks to the north and south of the Project site. Facilitating pedestrian access encourages people to walk instead of drive. The Project would not impose barriers to pedestrian access and interconnectivity.

    - Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by

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consolidating and reducing requirements for single-delivery vendor truck trips.

- To reduce water demands and associated energy use, development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy).[5] Development proposals within the Project site would also be required to implement the following:

  - Landscaping palette emphasizing drought tolerant plants consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

  - Use of water-efficient irrigation techniques consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

  - U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and other plumbing fixtures.

Additionally, the Project in total would surpass, by a minimum of 5%, incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards).

[5] Reduction of 20% indoor water usage is consistent with the current CalGreen Code performance standards for residential and non-residential land uses. Per CalGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

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The above design features and operational programs would act to generally reduce Project GHG emissions from area sources, energy sources, and other on-site emissions sources which combined, account for approximately 11 percent of the Project total GHG emissions.

The remaining approximately 89 percent of Project GHG emissions are attributable to mobile sources. Neither the Project Applicant nor the Lead Agency can substantively or materially affect reductions in Project mobile-source GHG emissions. Mobile source emissions sources are regulated by CARB and USEPA. As summarized at EIR Section 4.2, *Air Quality*, 4.2.5, *Regional Air Quality Trends*, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions (including attendant GHG Emissions) have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve. Future CARB and USEPA actions could be expected to have a positive effect on Project-related vehicular-source emissions, resulting in incremental reductions in coincident vehicular-source GHG emissions when compared to GHG emissions estimates presented here. No further feasible measures are available that would substantively mitigate the Project's GHG emissions.[6]

Based on the preceding discussions, the Project's GHG emissions impacts are considered cumulatively significant and unavoidable.

[6] It is noted further, that in developing the 10,000 MTCO2e/year significance threshold for industrial uses, SCAQMD specifically excluded GHG emissions from mobile sources. If this same protocol was employed here rather than the conservative approach taken, Project GHG emissions would total less than 1,400 MTCO2e/year; substantively less than the 10,000 MTCO2e/year significance threshold employed by SCAQMD.

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5.2.4 Cumulative Impacts Related to Noise

5.2.4.1 Construction-Source Noise

Project construction-source noise levels received at nearby properties would conform to City noise standards, and would therefore be less-than-significant. Further, as indicated at Table 5.2-5, Project construction-source noise in combination with ambient noise would not result in cumulatively significant noise impacts. At the nearest sensitive receptor (Receptor R1), the received peak Project construction-source noise levels (47.7 dBA) when added to ambient conditions (64.0 dBA daytime average) would temporarily increase ambient noise levels by approximately 0.1 dBA and would not be discernible against background conditions. Nor would the addition of Project construction-source noise to ambient noise conditions at any receptor result in or cause and exceedance of acceptable noise standard(s).

Table 5.2-5
Cumulative Effects of Construction-Source Noise

Receptor Location	Ambient Daytime Average Hourly Noise Level (dBA Leq)	Maximum Received Construction-Source Noise Level (dBA Leq)	Cumulative Noise Level (dBA Leq)	Project Contribution to Cumulative Noise Level (dBA Leq)
R1	64.0	47.7	64.1	0.1
R2-R3	57.4	43.0	57.6	0.2
R4-R5	57.1	43.5	57.3	0.2

Sources: *Indian Street Commerce Center Noise Impact Analysis* (Urban Crossroads, Inc.) June 23, 2016; Applied Planning, Inc.
"Daytime" = 8:00 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:59 a.m. Noise levels rounded to nearest tenth dBA.

5.2.4.2 Operational-Source Noise

Operational-Source Noise - Stationary/Area Sources

Noise generated by Project stationary/area sources received at nearby properties would conform to City noise standards, and would therefore be less-than-significant.

Further, as indicated at Table 5.2-6, noise generated by Project stationary/area sources in combination with ambient noise would not result in cumulatively significant noise impacts. At the nearest sensitive receptor (Receptor R1), the received peak noise levels

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from Project area/stationary sources (31.4 dBA) when added to ambient conditions (64.0 dBA daytime average; 62.9 dBA nighttime average) would not, within the limits of practical measurement, affect ambient noise levels. Nor would the addition of Project construction-source noise to ambient noise conditions at any receptor result in or cause an exceedance of acceptable noise standard(s).

Table 5.2-6
Cumulative Effects of Operational-Source Noise

Receptor Location	Ambient Daytime Average Hourly Noise Level (dBA Leq)	Ambient Nighttime Average Hourly Noise Level (dBA Leq)	Maximum Received Operational-Source Noise (dBA Leq)	Cumulative Noise Level (dBA Leq)	Project Contribution to Cumulative Noise Level (dBA Leq)
R1	64.0	62.9	31.4	62.9—64.0	---
R2-R3	57.4	57.2	28.9	57.2—57.4	---
R4-R5	57.1	56.5	29.2	56.5—57.1	---

Sources: *Indian Street Commerce Center Noise Impact Analysis* (Urban Crossroads, Inc.) June 23, 2016; Applied Planning, Inc.
"Daytime" = 8:00 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:59 a.m.

Operational-Source Noise - Traffic

Cumulative effects of vehicular-source (traffic) noise are demonstrated by comparing noise levels under Existing (2015) Conditions to noise levels with the Project Opening Year (2020) Conditions.

When considering the cumulative effects of vehicular-source noise, the City's 65 dBA CNEL standard reflected in the City General Plan is defined as the maximum acceptable ambient condition. When ambient noise conditions are within acceptable parameters (65 dBA CNEL) and cumulative effects of vehicular-source noise would exceed 65 dBA CNEL, cumulative increases in ambient conditions could adversely affect area land uses, and land/use noise compatibility standards may not be maintained. Cumulative vehicular-source noise that would cause ambient conditions to exceed 65dBA CNEL would, on this basis, be considered potentially significant.

If, however, ambient baseline conditions already exceed minimum acceptable standards, subsequent increases in noise levels may be considered cumulatively

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significant as they would contribute to already deficient conditions. Neither the City nor the State have established a quantified incremental increase in noise levels that could be considered cumulatively significant where ambient conditions may already be considered unacceptable. Federal guidance in this regard is provided by the Federal Interagency Committee on Noise (FICON).[7] FICON guidance facilitates assessment of project-generated increases in noise levels that take into account ambient noise conditions. FICON guidance was specifically developed to assess aircraft noise impacts. Notwithstanding, this guidance is broadly relevant to all environmental analyses addressing the perceived effects of noise. Germane to the analysis presented herein, FICON guidance indicates that when ambient noise conditions are at or above normally acceptable standards, increases in noise of 1.5 dBA or greater would contribute to existing deficiencies, potentially resulting in increased community annoyance, citizen complaints, and potential litigation.

FICON guidance, as applied within this analysis, would indicate that when ambient conditions equal or exceed the City's maximum acceptable standards for vehicular sources (65 dBA CNEL), cumulative increases of 1.5 dBA or greater in ambient conditions could result in increased community annoyance, citizen complaints, and potential litigation. For the purposes of this analysis then, when cumulative ambient noise conditions equal or exceed maximum acceptable standards for vehicular sources (65 dBA CNEL), cumulative noise increases of 1.5 dBA or greater would be cumulatively significant, and Project noise that would contribute 1.5 dBA or more to cumulative noise conditions would be cumulatively considerable. Cumulative traffic vehicular-source noise impacts and Project contributions to cumulative vehicular-source noise impacts are summarized at Table 5.2-7.

[7] *Federal Agency Review of Selected Airport Noise Analysis* (Federal Interagency Committee on Noise) 1992.

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Table 5.2-7
Cumulative Traffic Noise Impacts

Roadway	Segment	2015 CNEL at 100 Feet (dBA)*			2020 CNEL at 100 Feet (dBA)*			Cumulative Increase 2015 w/o Project– 2020 w/Project
		No Project	With Project	Project Addition	No Project	With Project	Project Addition	
Indian St.	n/o Grove View Rd.	78.9	78.9	0.0	83.0	83.0	0.0	0.0
Indian St.	***s/o Grove View Rd.***	***79.4***	***80.0***	***0.6***	***82.2***	***82.5***	***0.3***	***2.6***
Indian St.	***s/o Driveway 1***	***79.0***	***79.6***	***0.6***	***82.0***	***82.3***	***0.3***	***3.3***
Indian St.	***n/o Harley Knox Blvd.***	***79.4***	***79.9***	***0.5***	***81.8***	***82.1***	***0.3***	***2.7***
Nandina Av.	w/o Indian St.	75.5	75.5	0.0	76.7	76.7	0.0	1.2
Nandina Av.	***e/o Indian St.***	***73.6***	***73.7***	***0.1***	***75.7***	***75.8***	***0.1***	***2.1***
Harley Knox Blvd.	w/o I-215 NB Ramps	77.8	78.3	0.5	80.4	80.7	0.3	1.3
Harley Knox Blvd.	***e/o I-215 NB Ramps***	***78.9***	***79.3***	***0.4***	***81.6***	***81.8***	***0.2***	***2.9***
Harley Knox Blvd.	***w/o Patterson Av.***	***78.9***	***79.3***	***0.4***	***81.6***	***81.8***	***0.2***	***2.9***
Harley Knox Blvd.	***w/o Webster Av.***	***78.6***	***79.0***	***0.4***	***81.4***	***81.6***	***0.2***	***3.0***
Harley Knox Blvd.	***w/o Indian St.***	***79.4***	***79.7***	***0.3***	***81.8***	***82.0***	***0.2***	***2.6***
Harley Knox Blvd.	***e/o Indian St.***	***75.4***	***75.5***	***0.1***	***77.4***	***77.4***	***0.0***	***2.0***

Source: *Indian Street Commerce Center, Noise Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) June 23, 2016.
Notes: *May not sum to total due to rounding.

As indicated at Table 5.2-7, the total cumulative noise increase along roadways within the Study Area over the considered 5-year cumulative timeframe would range from 0.0 dBA CNEL to 3.3 dBA CNEL. Study Area roadway segments affected by cumulatively significant vehicular-source noise impacts are indicated by ***bold italicized text***. Along these roadway segments, the ambient noise levels already exceed 65 dBA CNEL and cumulative increases in the ambient conditions noise of 1.5 dBA CNEL or greater would occur. Along these segments, vehicular-source noise increases from Existing (2015) Conditions to Opening Year (2020) Conditions would be potentially cumulatively significant.

In all instances, the potentially significant cumulative vehicular-source noise impacts identified at Table 5.2-7 would occur irrespective of the Project, and the Project's incremental contributions would be less than 1.5 dBA, and would therefore not be cumulatively considerable. Nor would Project vehicular-source noise contributions to

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cumulative noise levels cause or result in a transition from below 65 dBA CNEL to above 65 dBA CNEL. On this basis, the Project's vehicular-source noise impacts are not cumulatively considerable.

The Project is consistent with land uses and development anticipated by the City of Moreno Valley General Plan, and evaluated in the City of Moreno Valley General Plan EIR. The General Plan EIR by its nature addresses cumulative impacts associated with buildout of the City, including potential cumulative noise impacts. In this regard, the General Plan EIR at Section 5.4, *Noise* concludes that future development of the City consistent with the General Plan, to include development-specific noise impact analyses and associated mitigation where necessary, would result in less-than-significant noise impacts.

Summary

Project construction-source noise levels would be less-than-significant, and would not be cumulatively considerable. Project stationary/area-source noise impacts would also be less-than-significant and not cumulatively considerable. Noise increases along certain roadway segments within the Study Area would be cumulatively significant over the time frame 2015 to 2020; however, these impacts would occur irrespective of the Project, and the Project's contributions to these impacts would be less than 1.5 dBA CNEL, and therefore not cumulatively considerable. The General Plan EIR concludes that development that is consistent with the General Plan and that complies with analytic performance standards and policies outlined in the General Plan, would result in less-than-significant cumulative noise impacts. The Project comports with qualifying conditions outlined in the General Plan and General Plan EIR, and would therefore not contribute considerably to potential cumulative noise impacts.

5.2.5 Cumulative Impacts Related to Hazards and Hazardous Materials

For the purposes of this analysis, the cumulative impact area when considering potential hazards and hazardous materials issues generally includes the area to be developed within the Project site, as well as off-site locations that might be affected by or contribute to hazards or hazardous conditions resulting from the Project and its

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operations. These areas generally include neighboring properties within the City of Moreno Valley. The cumulative hazards and hazardous materials impact analysis evaluates effects of the Project construction and operations, and reflects long-term buildout conditions within the cumulative impact area.

As substantiated at EIR Section 4.5, *Hazards/Hazardous Materials* development and operation of land uses within the Project site would not create, or result in exposure to potentially significant hazardous conditions. Further, the Project would not be adversely affected by any hazards or hazardous conditions associated with MARB/Inland Port Airport (Airport); nor would the Project result in or cause hazards or hazardous conditions that would adversely affect the Airport or its operations.

The Project does not propose uses or activities that would require substantive handling or use of hazardous materials, hazardous substances, or hazardous waste that could result in potential adverse effects. To the extent that such materials or substances may be present during Project construction or operations they would be transported, stored, used and disposed of consistent with the multiple and broad regulatory requirements.

Further, the Project represents buildout of the site consistent with land uses envisioned under the City of Moreno Valley General Plan and as evaluated in the City of Moreno Valley General Plan EIR. The General Plan EIR by its nature addresses cumulative impacts associated with buildout of the City, including potential cumulative hazards/hazardous materials impacts. In this regard, the General Plan EIR at Section 5.5, *Hazards* concludes that future development of the City consistent with the General Plan would result in less-than-significant hazard/hazardous materials impacts. On this basis, the General Plan EIR substantiates that development of the Project would not contribute considerably to potential cumulative hazards/hazardous materials impacts.

Summary

As substantiated in the preceding discussions, the Project's potential contribution to hazards/hazardous materials impacts is not considerable, and the cumulative effects of the Project are less-than-significant. The General Plan EIR concludes that development

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that is consistent with the General Plan would result in less-than-significant cumulative noise impacts. The Project comports with qualifying conditions outlined in the General Plan and General Plan EIR, and would therefore not contribute considerably to cumulative hazards/hazardous materials impacts.

Based on the preceding discussion, the Project's potential contribution to cumulative hazards/hazardous materials impacts is not considerable, and the cumulative effects of the Project are less-than-significant.

5.2.6 Cumulative Impacts Related to Hydrology/Water Quality

The area encompassed within the jurisdictional Regional Water Quality Control Board (RWQCB); in this case, the Santa Ana Regional Water Quality Control Board (SARWQCB), defines the cumulative impact area for hydrology/water quality impact considerations. Local oversight addressing hydrology/water quality impact considerations is provided by the City of Moreno Valley and Riverside County.

Development of the Project site would incrementally increase impervious surfaces within the cumulative impact area, with related potential increases in the rate and quantity of local stormwater discharges. As summarized at EIR Section 4.6, and presented in detail within the Project Drainage Study, (EIR Appendix G), the Project incorporates those stormwater management components, including drainage facilities, stormwater retention basins, and structural and non-structural Best Management Practices, which collectively act to ensure that post-development stormwater discharge rates are adequately conveyed within available system capacities.

The Project bio-retention basins (basins) would act to attenuate stormwater discharge volumes and rates of runoff during minor storm events comparable to pre-development conditions. The basins have been designed consistent with the Riverside County Low Impact Development Design BMP Handbook and the City's Water Quality Basin Civil Design Guidelines.

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The Project basins provide storage capacities surpassing the required design stormwater volume capacity. Stormwater discharge volumes exceeding the basin capacities would be conveyed via the on-site storm drain system to the existing Master Drainage Plan (MDP) 6-foot high by 10-foot wide reinforced concrete box storm drain located in abutting Indian Street. This MDP storm drain has been designed and constructed pursuant to the *Perris Valley MDP*, and in anticipation of stormwater discharges resulting from areawide development such as that proposed by the Project. The existing Indian Street storm drain has adequate capacity to accept and convey 100-year Project stormwater flows to the Perris Valley Storm Drain Channel. Because the Project is consistent with, and is anticipated by the *Perris Valley MDP*, the Project would not result in exceedance of available storm drain capacities or flooding due to the introduction of substantial, unanticipated stormwater flows. In this manner, the Project's contributions to cumulative stormwater discharges are limited consistent with available stormwater system capacities, and the Project's contributions would not be cumulatively considerable.

The Project would implement stormwater quality treatment facilities and programs consistent with requirements and policies identified in the September 2011 RCFCWCD *Design Handbook for Low Impact Development Best Management Practices* (LID BMPs) and within the *Riverside County SARQWCB Basin Plan* (Basin Plan). The Project LID BMPs and the Basin Plan, as implemented, act to ensure that cumulative water quality impacts within the SARQWCB jurisdictional area are less-than-significant.

Further, the Project represents buildout of the site consistent with land uses envisioned under the City of Moreno Valley General Plan and as evaluated in the City of Moreno Valley General Plan EIR. The General Plan EIR by its nature addresses cumulative impacts associated with buildout of the City, including potential Hydrology/Water Quality cumulative impacts. In this regard, the General Plan EIR at Section 5.7, *Hydrology/Water Quality* concludes that future development of the City consistent with the General Plan and in compliance with NPDES, RCFCWCD, and RWQCB as would occur under the Project, would result in less-than-significant hydrology/water quality

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impacts. On this basis, the General Plan EIR substantiates that development of the Project would not result in cumulatively significant hydrology/water quality impacts.

Summary

The Project would comply with established stormwater management policies and regulations including, but not limited to provisions of the RCFCWCD Design Handbook for LID BMPs, and the SARQWCB Basin Plan. Regulatory and policy compliance, complemented by implementation of Project-specific stormwater management components, reduces the Project's potential contribution to cumulative hydrology/water quality impacts to levels that are not cumulatively considerable. Further, the General Plan EIR concludes that development that is consistent with the General Plan would result in less-than-significant cumulative hydrology/water quality impacts. The Project comports with qualifying conditions outlined in the General Plan and General Plan EIR, and would therefore not contribute considerably to cumulative hydrology/water quality impacts.

Based on the preceding discussion, the Project's potential contribution to cumulative hydrology/water quality impacts is not considerable, and the cumulative effects of the Project are less-than-significant.

5.2.7 Cumulative Impacts Related to Biological Resources

The cumulative impact areas for biological resources are generally defined by available habitat, species' range(s), physical constraints, and other limiting factors as discussed within the Project Biological Survey, EIR Appendix H. Biological resources occurring, or potentially occurring within the Project site, and any related potentially significant impacts and mitigation are summarized below.

Sensitive Plant Communities and Species

The Project site is heavily disturbed, and comprises undeveloped fields dominated by tumbleweed (*Salsola tragus*). A small number of ornamental pines (*Pinus* sp.) and Chinaberry (*Melia azedarach*) trees exist in the southwesterly portion of the Project site. No special interest plant species or areas of native habitat were observed during

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surveys of the Project site. Nor do historic records indicate previous occurrence of special interest plant species within the Project site.

The absence of any native habitat, extensive site disturbance, and lack of any historic presence indicate that no special interest plant species exist, or would likely occur on-site. No potentially significant impacts to special status plant species would result from implementation and operation of the Project, and no mitigation is required.

Wildlife Species

The Project site provides limited disturbed habitat for wildlife species adapted to a high degree of human presence and development. No special status wildlife species were detected during surveys of the Project site, and none are considered to exist within the Project site. No potentially significant impacts to special status wildlife species would result from implementation and operation of the Project, and no mitigation is required.

Jurisdictional Areas

No jurisdictional areas or wetlands occur within the Project site. No potentially significant impacts to jurisdictional areas would result from implementation and operation of the Project, and no mitigation is required.

Wildlife Movement Corridors

The Project site is bounded by traveled roadways and developed or developing properties. As such, the site does not represent a connecting link between significant habitat or wildlife areas. Based on its location within an urban context, the potential for the site to function as a significant wildlife movement corridor is considered low. No potentially significant impacts to wildlife movement corridors would result from implementation and operation of the Project, and no mitigation is required.

Nesting Birds

The Project site provides limited suitable habitat for ground-nesting birds. Nesting birds are universally protected under provisions of the Migratory Bird Treaty Act (Act). The Project would comply with applicable provisions of the Act as specified in the

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mitigation measures presented at EIR Section 4.7, *Biological Resources*. As mitigated, the Project's potential impacts to nesting birds are reduced to levels that are less-than-significant.

The Project is consistent with land uses and development anticipated by the City of Moreno Valley General Plan, and evaluated in the City of Moreno Valley General Plan EIR. The General Plan EIR by its nature addresses cumulative impacts associated with buildout of the City, including potential cumulative biological resources impacts. In this regard, the General Plan EIR at Section 5.9, *Biological Resources* concludes that future development of the City consistent with the General Plan, to include development-specific biological resources investigations and associated mitigation where necessary; and mandated compliance with the Riverside County MSHCP, would result in less-than-significant impacts to biological resources.

Summary

Mitigation proposed in the EIR reduces potential impacts to biological resources to levels that are less-than-significant. In this regard, mitigation of Project-specific biological resources impacts would also reduce the Project's potential incremental contributions to cumulative biological resources impacts within the region to levels that are not cumulatively considerable. The General Plan EIR concludes that development that is consistent with the General Plan and that complies with analytic performance standards and policies outlined in the General Plan, would result in less-than-significant impacts to biological resources. The Project comports with qualifying conditions outlined in the General Plan and General Plan EIR, and would therefore not contribute considerably to potential biological resources impacts.

Based on the preceding discussion, the Project's potential contribution to cumulative biological resources impacts is not considerable, and the cumulative effects of the Project are less-than-significant.

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5.2.8 Cumulative Impacts Related to Cultural Resources/Tribal Cultural Resources

The cumulative impact area for prehistoric, archaeological, historic, and tribal cultural resources generally includes the City of Moreno Valley and surrounding areas. Impacts to any cultural resources or tribal cultural resources within this area would be site-specific. In the event that potentially significant cultural or tribal resources are encountered at any development sites within the cumulative impact area, specific mitigation measures would be applied before construction activities could proceed. Potential impacts to cultural resources and tribal cultural resources are determined to be less-than-significant as mitigated. In this regard, mitigation proposed for the Project (i.e., monitoring of construction activities for potential discovery of cultural resources) is typical of, and consistent with, mitigation required for construction within urban and suburban areas throughout the City of Moreno Valley and surrounding region.

The lead agency has initiated Tribal Cultural Consultation processes pursuant to *AB 52, Gatto. Native Americans: California Environmental Quality Act*. As of the date of this EIR, no potentially significant tribal cultural resources impacts have been identified.

The Project is consistent with land uses and development anticipated by the City of Moreno Valley General Plan, and evaluated in the City of Moreno Valley General Plan EIR. The General Plan EIR by its nature addresses cumulative impacts associated with buildout of the City, including potential cumulative cultural resources impacts. In this regard, the General Plan EIR at Section 5.10, *Cultural and Paleontological Resources* concludes that future development of the City consistent with the General Plan, to include development-specific cultural resources investigations and associated mitigation where necessary, would result in less-than-significant impacts to cultural and paleontological resources.

Summary

As required by the City, site and development-specific cultural resources investigation has been prepared for the Project. Mitigation proposed in this EIR reduces potential impacts to cultural/tribal resources to levels that are less-than-significant. In this regard, mitigation of Project-specific cultural resources impacts would also reduce the Project's

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potential incremental contributions to cumulative cultural resources impacts within the region. Moreover, the General Plan EIR substantiates that development of the Project to include incorporation of mitigation identified herein, would not result in cumulatively significant cultural resources impacts.

Tribal consultation pursuant to AB 52, *Gatto. Native Americans: California Environmental Quality Act* has been initiated by the Lead Agency. As of this writing, no potential impacts to tribal cultural resources have been identified, and Project contributions to potential cumulative Tribal Cultural Resources impacts is therefore not cumulatively considerable.

Based on the preceding discussion, the Project's potential contribution to cumulative cultural resources/tribal resources impacts is not considerable, and the cumulative effects of the Project are determined to be less-than-significant.

5.3 ALTERNATIVES ANALYSIS

Pursuant to *CEQA Guidelines* §15126.6, an EIR must describe a range of reasonable alternatives to the Project, or to the location of the Project, which would feasibly attain the Project objectives, but would avoid or substantially lessen any of the significant environmental effects of the proposal. As further presented in the *CEQA Guidelines*, an EIR need not consider every conceivable alternative, but rather, the discussion of alternatives and their relative merits and impacts should be provided in a manner that fosters informed decision-making and public participation. To this end, the *CEQA Guidelines* indicate that the range of alternatives selected for examination in an EIR should be governed by "rule of reason," and requires the EIR to set forth only those alternatives necessary to permit an informed decision. Consistent with the provisions of the *CEQA Guidelines*, the following analysis presents alternatives to the Project that would potentially lessen its environmental effects while allowing for attainment of Project Objectives.

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5.3.1 Alternatives Overview

Descriptions of, and the rationale underlying, the alternatives considered in this EIR are presented below. As provided for under CEQA, the ultimate rationale underlying the development and selection of alternatives to the Project is the reduction or avoidance of otherwise resulting significant environmental impacts, while allowing for attainment of the basic Project Objectives. Alternatives considered within this analysis include:

- CEQA-mandated "No Project" Alternative;
- Alternative Sites;
- "No Threshold Exceedance" Alternative for Significant Traffic Impacts;
- "No Threshold Exceedance" Alternative for Significant Air Quality Impacts; and
- Reduced Intensity Alternative-Indian Street Commerce Center Land Uses.

Please refer also to Section 5.3.2, *Description of Alternatives*. To provide context for the subsequent consideration of Alternatives, significant Project impacts are summarized at Table 5.3-1, and the Project Objectives are restated subsequently.

Table 5.3-1
Summary of Significant and Unavoidable Impacts

Environmental Consideration	Comments
Traffic	
	The Project would construct, or pay required fees toward, completion of all necessary Study Area transportation/traffic system improvements. At the significantly-impacted locations noted below, the Project cannot feasibly construct the required improvements, and/or payment of fees would not assure their timely completion. **<u>Cumulatively Significant Impacts</u>** ***Intersections*** Pending completion of required improvements, the Project's incremental contributions to Opening Year Conditions cumulative traffic impacts at or affecting the following intersections are considered cumulatively significant and unavoidable: **Intersection ID No.** — **Intersection Location** 1 — I-215 SB Ramps/Harley Knox Blvd. 2 — I-215 NB Ramps/Harley Knox Blvd. 3 — Western Way / Harley Knox Blvd. 4 — Patterson Ave. / Harley Knox Blvd. 7 — Indian St. / Grove View Rd.

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Table 5.3-1
Summary of Significant and Unavoidable Impacts

Environmental Consideration	Comments

10 Indian St. / Harley Knox Blvd.

Roadway Segments

Pending completion of required improvements, the Project's incremental contributions to Opening Year Conditions cumulative traffic impacts at or affecting the following roadway segments are considered cumulatively significant and unavoidable:

Roadway Segment ID No.	Roadway	Segment Limits
2	Harley Knox Blvd.	I-215 NB Ramps to Western Way
3	Harley Knox Blvd.	East of Western Way
4	Harley Knox Blvd.	West of Patterson Ave.
9	Indian St.	South of Nandina Ave.
10	Indian St.	North of Grove View Rd.
11	Indian St.	South of Grove View Rd.

Freeway Facilities

The Project's incremental contributions to Opening Year Cumulative traffic impacts at or affecting the following freeway facilities are considered cumulatively significant and unavoidable:

	Freeway Segment
1	I-215, Northbound, University Avenue to Martin Luther King Boulevard
2	I-215, Northbound, Box Springs Road to SR-60/I-215 Freeway
3	I-215, Northbound, Eucalyptus Avenue to Alessandro Boulevard
4	I-215, Northbound, Ramona Expressway to Nuevo Road
5	I-215, Southbound, Eucalyptus Avenue to Alessandro Boulevard
6	I-215, Southbound, Ramona Expressway to Nuevo Road
7	SR-91, Westbound, Riverwalk Parkway to Magnolia Avenue

Air Quality

Project-Specific Significant Impacts

Operational-Source Pollutant Emissions Exceedances

Even after compliance with South Coast Air Quality Management District (SCAQMD) rules and regulations, and the application of EIR mitigation measures, operational pollutant emissions would exceed applicable SCAQMD regional emission thresholds for NO_x. These impacts are therefore individually significant.

Cumulatively Significant Impacts

Operational-Source Pollutant Emissions Exceedances

Project-specific operational-source NO_x emissions exceedances are cumulatively significant over the life of the Project.

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Table 5.3-1
Summary of Significant and Unavoidable Impacts

Environmental Consideration	Comments
	Non-Attainment Area Impacts Project operational source NO_x emissions exceedances (NO_x is an ozone precursor; NO_x is also a $PM_{10}/PM_{2.5}$ precursor), in combination with NO_x emissions generated by other sources affecting the SCAB ozone and $PM_{10}/PM_{2.5}$ non-attainment areas, would result in a cumulatively considerable net increase in ozone and $PM_{10}/PM_{2.5}$ within the non-attainment areas. These are cumulatively significant impacts.
Greenhouse Gases/Global Climate Change	
	Project-Specific Impacts Project GHG emissions would individually exceed the 10,000 MTCO2e/year GHG emissions threshold employed by the City. Project GHG emissions would also not conform to State GHG emissions reductions targets established under AB32. **Cumulatively Significant Impacts** Project-specific GHG emissions exceedances would be cumulatively considerable in the context of existing GHG emissions levels and GHG emissions that would be generated by other known or probable GHG emissions sources.

PROJECT OBJECTIVES

The primary goal of the Project is to develop high quality light industrial/business park uses accommodating a variety of prospective tenants. Complementary Project Objectives include the following:

- Implement the City's General Plan through development that is consistent with the General Plan Community Development Element and applicable General Plan Goals, Objectives, Policies and Programs;
- Implement the Moreno Valley Industrial Area Plan through development that is consistent with the Area Plan land uses and development concepts, and in total supports the Area Plan Vision;
- Provide adequate roadway and wet and dry utility infrastructure to serve the Project;
- Accommodate warehouse and manufacturing uses that are compatible with adjacent land uses;

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- Provide an attractive, efficient and safe environment for warehouse uses that is cognizant of natural and man-made conditions;
- Accommodate a mix of warehouse and manufacturing uses responsive to current and anticipated market demands;
- Establish new development that would increase locally available employment opportunities and would further the City's near-term and long-range fiscal goals and objectives; and
- Establish new development that would increase locally available employment opportunities thereby improving jobs/housing balance within the City.

Please refer also to Draft EIR Section 3.6, *Project Objectives*.

5.3.2 Description of Alternatives

Six alternatives to the Project, listed subsequently, are evaluated herein. Descriptions of the selected Alternatives are provided in the following paragraphs.

- CEQA-mandated "No Project" Alternative;
- Alternative Sites;
- "No Threshold Exceedance" Alternative for Significant Traffic Impacts;
- "No Threshold Exceedance" Alternative for Significant Air Quality Impacts; and
- Reduced Intensity Alternative-Indian Street Commerce Center Land Uses.

5.3.2.1 No Project Alternative

Overview

The *CEQA Guidelines* specifically require that an EIR include in its evaluation a No Project Alternative. The No Project Alternative should make a reasoned assessment as to future disposition of the subject site should the Project under consideration not be developed. In this latter regard, the *CEQA Guidelines* state in pertinent part:

> If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the "no project" alternative

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is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in its existing state against environmental effects which would occur if the project is approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this "no project" consequence should be discussed. In certain instances, the no project alternative means "no build" wherein the existing environmental setting is maintained. However, where failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment (*CEQA Guidelines*, Section 15126.6 (e)(3)(b)).

No Project/No Build Alternative

In this instance, development of the subject site is substantively defined by Moreno Valley Industrial Area Plan (MVIAP). The No Project Alternative would be required to conform to land uses approved for, and overarching performance standards and development regulations established under, the MVIAP. It is therefore considered unlikely that the subject site would remain vacant or in a "No Build" condition. That is, failure to proceed with the Project would not result in preservation of existing environmental conditions, and the practical result of the Project's non-approval would be the development of the subject site with some other variety or configuration of approved Specific Plan land uses.

Any development of the subject site under a No Project Alternative would therefore likely be materially consistent with the Project, though internal land use configurations, development intensities, and specific uses may be realigned within the constraints and allowances of the MVIAP. Environmental impacts resulting from development of the subject site under a No Project Alternative would likely therefore be comparable to those occurring under the Project.

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If, however, development of the subject site was significantly delayed by economic, political, or other outside influences, existing environmental conditions would likely prevail, and in most instances, environmental impacts would be reduced when compared to the Project. To provide an analysis differentiated from that presented within the body of this EIR, the No Project Alternative considered herein is assumed to represent a "No Build" condition.

5.3.2.2 Reduced Intensity Alternative

As detailed at EIR Section 4.3, *Global Climate Change and Greenhouse Gas Emissions*, Project GHG emissions would exceed the 10,000 MTCO2e/year GHG emissions threshold employed by the City of Moreno Valley. The Project's GHG emissions threshold exceedances constitute individually and cumulatively significant air quality impacts.

More specifically, even after application of all feasible mitigation measures, Project GHG emissions would result in exceedances of applicable City thresholds, as summarized below.

- Project Operational GHG emissions = 12,154.98 MTCO2e/year
  City of Moreno Valley threshold = 10,000 MTCO2e/year
  (City of Moreno Valley threshold = approximately 83 percent of Project Operational GHG emissions)

In order to achieve the 10,000 MTCO2e threshold established by the City, the Project GHG emissions would need be reduced from 12,154.98 MTCO2e/year to less than 10,000 MTCO2e/year; or by approximately 17 percent or greater.

Vehicular sources account for approximately 89 percent of the Project GHG emissions, the remaining 11 percent resulting from various on-site stationary/area sources. In order to achieve meaningful reductions in Project GHG emissions, correlating reductions in Project traffic generation would therefore be required.

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Project GHG emissions could be reduced to levels that are less-than-significant through a reduction in the Project scope that would sufficiently reduce vehicular trips and associated vehicular-source GHG emissions. Such a reduction in operational-source emissions would also decrease the Project's contributions to cumulative GHG emissions impacts to levels that are less-than-significant.

Reduced Intensity Alternative Scoped to Achieve GHG Emissions Threshold

The Reduced Intensity Alternative considered here would maintain the types and general configurations of land uses proposed under the Project, but would reduce their respective scopes in order to achieve a 17 percent overall reduction in Project GHG emissions. Allowing for a margin of error, and for discussion and analytic purposes, a 20 percent GHG emissions reduction target is established for the Reduced Intensity Alternative. A correlating 20 percent reduction in development scope is assumed. This would achieve the 10,000 MTCO2e threshold established by the City, reducing Project GHG emissions impacts to levels that would be less-than-significant. Table 5.3-2 compares the composition and scope of uses under the Project with the 20 percent reduction in development scope that would occur under the Reduced Intensity Alternative.

Table 5.3-2
Site Development Comparison
Project and Reduced Intensity Alternative

Land Use	Total Building Area (sf)	
	Project	Reduced Intensity Alternative (rounded to 10 sf)
General Light Industrial (Mfg.)	89,270	71,420
High Cube Warehouse/Distribution Center	357,080	285,660
Totals	**446,350**	**357,080**

Sources: Project land uses- Indian Street Commerce Center Development Concept, January 2016; Reduced Intensity Alternative- Applied Planning, Inc.

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5.3.2.3 Alternative Sites Considered and Rejected

As stated in the *CEQA Guidelines* §15126.6 (f)(1)(2)(A), the "key question and first step in [the] analysis [of alternative locations] is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR." *CEQA Guidelines* §15126.6 (f) (1) also provides that when considering the feasibility of potential alternative sites, the factors that may be taken into account are "site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context) and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). None of these factors establishes a fixed limit on the scope of reasonable alternatives."

The Project considered herein is not subject to relocation to an alternative site. That is, the Project is in large part defined by its location and implements a portion of the land uses and development approved under the Moreno Valley Industrial Area Plan (MVIAP). At a different location, the development would be something other than the Project considered here. Moreover, relocation of the Project would compromise fundamental Project Objectives to:

- Implement the City's General Plan through development that is consistent with the General Plan Community Development Element and applicable General Plan Goals, Objectives, Policies and Programs. ***Relocation of the Project elsewhere would likely require amendment to the City General Plan with potentially adverse implications for attainment of General Plan Goals.***

- Implement the Moreno Valley Industrial Area Plan through development that is consistent with the Area Plan land uses and development concepts, and in total supports the Area Plan Vision. ***Relocation of the Project elsewhere would not***

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realize development that is consistent with the MVIAP land uses and development concepts, and would not support the MVIAP vision.

Moreover, in the case of the Project, relocation to an Alternative Site within the City of Moreno Valley would not achieve any substantive reduction in the Project's traffic impacts. That is, implementation of area-serving traffic improvements, including intersection signalization and roadway segment widening as envisioned under the City General Plan Circulation Element is an on-going process undertaken in conjunction with the development of vacant or underutilized properties throughout the City. As such, it is highly unlikely that a suitable Alternative Site could be identified that would distribute Project trips only to roadways that have already been improved to their ultimate Moreno Valley General Plan configurations, thus avoiding the Project's significant impacts at area transportation facilities.

Additionally, improvements necessary to resolve significant cumulative traffic impacts affecting Study Area freeway facilities would occur at, or would require improvement of, Caltrans jurisdictional facilities. Ultimately, planned and programmed improvements to Caltrans facilities would alleviate regionally and locally cumulatively significant impacts, including the Project's contributions to these impacts. Such improvements, however, are beyond the scope and purview of the Lead Agency and the Applicant. If not implemented at the current site, the Project uses would still contribute essentially the same volumes and types of traffic to Caltrans facilities, resulting in significant traffic impacts similar to those of the current Project at its current location; the impacts differentiated principally (if not solely) by their location(s) within the freeway system serving the City.

Regarding criteria pollutant air quality impacts, the Project's operational-source NO_x emissions impacts are regional effects, and location of the Project anywhere within the City, or for that matter, anywhere within the South Coast Air Basin, would result in similarly significant impacts. Relocation of the Project to an alternative site would therefore not substantively reduce the Project's operational-source NO_x emissions impacts.

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Similarly, GHG emissions/GCC impacts result from the Project are by definition global in scope, and not location specific. Relocation of the Project to an alternative site within would therefore not substantively reduce the Project GHG emissions impacts.

Based on the preceding considerations, an Alternative Site is not further considered in this Section.

5.3.2.4 "No Threshold Exceedance" Alternative for Significant Traffic Impacts Considered and Rejected

Specific improvements identified in the Project TIA (EIR Appendix B) and summarized at Draft EIR Section 4.1 would provide a physical solution to identified potentially significant cumulative traffic impacts. Project mitigation responsibilities at affected Study Area facilities would be satisfied through fee payments directed to completion of the required improvements. Notwithstanding, Project fee payments would not ensure timely implementation of improvements required as mitigation for potentially significant cumulative traffic impacts, and impacts are therefore considered cumulatively significant and unavoidable pending completion of the required improvements.

Any measurable additional traffic contributed to the above-noted facilities would result in cumulatively significant traffic impacts similar to those occurring under the Project, requiring some manner of currently infeasible mitigation. In that any viable development of the subject site would generate trips likely affecting some or all of the above-referenced facilities, an alternative to the Project developed specifically to alleviate cumulatively significant traffic impacts at Study Area intersections and freeway facilities was not further evaluated. Notwithstanding, the Reduced Intensity Alternative considered herein would act to generally reduce traffic volumes within the Study Area and would likely diminish the magnitude of traffic impacts; but would not avoid cumulatively significant traffic impacts affecting Study Area faculties.

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5.3.2.5 "No Threshold Exceedance" Alternative for Significant NO_x Emissions Impacts Considered and Rejected

As presented at EIR Section 4.2, *Air Quality*, Project maximum daily operational-source NO_x emissions would exceed SCAQMD regional thresholds for NO_x. The Project's operational-source NO_x emissions threshold exceedances constitute individually and cumulatively significant air quality impacts. Because NO_x is a precursor to ozone and to $PM_{10}/PM_{2.5}$, Project operational-source NO_x emissions exceedances would result in a cumulatively considerably net increase in ozone and $PM_{10}/PM_{2.5}$ within a region designated as non-attainment for ozone and $PM_{10}/PM_{2.5}$.

More specifically, even after application of all feasible mitigation measures, Project operational-source NO_x emissions would result in exceedances of applicable SCAQMD regional thresholds, as summarized below. Maximum impact summer/winter seasonal conditions are reflected in these discussions.

- Total Mitigated Project Operational NO_x emissions = 190.61 pounds per day
  SCAQMD threshold = 55 pounds per day
  (SCAQMD threshold = approximately 29 percent of Project Operational NO_x emissions)

Project operational-source NO_x emissions would need to be reduced from 190.61 pounds per day to less than 55 pounds per day, or by a minimum of 71 percent, in order to achieve the SCAQMD regional threshold for operational-source NO_x emissions.

Vehicular sources account for approximately 98 percent of the Project operational-source NO_x emissions, the remaining 2 percent resulting from various on-site stationary/area sources. In order to achieve meaningful reductions in Project operational-source NO_x emissions, correlating reductions in Project traffic generation would therefore be required.

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The Project's operational-source air pollutant NO_x emissions could therefore be reduced to levels that are less-than-significant through a minimum 71 percent reduction in the Project scope; sufficient to reduce vehicular trips and associated vehicular-source NO_x emissions below SCAQMD thresholds. Such a reduction in operational-source emissions would also decrease the Project's contributions to cumulative NO_x air quality impacts to levels that are less-than-significant.

At a 71 percent reduction in scope however, the resulting development would fundamentally not be the Project considered herein; and the Project Objectives would not be realized in any meaningful sense. As such, potential alternatives with the specific goal of avoiding all significant operational-source NO_x emissions impacts resulting from the Project were rejected from consideration, and were not further evaluated. Notwithstanding, in achieving the GHG emissions thresholds for the Project, the Reduced Intensity Alternative considered herein would also act to diminish Project operational source NO_x emissions. Operational-source NO_x emissions exceedances otherwise occurring under the Project would however remain significant and unavoidable.

5.3.3 Comparative Impacts of Alternatives

For each environmental topic addressed in the Draft EIR, the alternative analyses present an assessment of comparative impacts. Although significant and unavoidable impacts have not been identified under every EIR topic, the environmental impacts associated with each of the considered Alternatives are described relative to the potential and identified impacts of the Project. At the conclusion of these discussions, Table 5.3-3 summarizes and compares relative impacts of the considered Alternatives.

5.3.3.1 Comparative Traffic/Transportation Impacts

As discussed at EIR Section 4.1, *Transportation/Traffic* at full buildout, implementation of the Project would result in an increase of approximately 1,472 net average daily trips (PCEs) on the Study Area roadway system. Of these additional trips, 158 would occur during the morning peak-hour period, and 167 would occur during the evening peak-hour period.

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No Build Alternative

Under the No Build Alternative, no additional traffic would be generated and traffic impacts would be reduced when compared to the Project. No mitigation would be required. However, improvements implemented by the Project would also not be realized. Nor would fees be paid toward planned and programmed near-term and long-range traffic improvements within the Study Area. Additionally, cumulatively significant near-term and long-range traffic impacts would persist at the predominance of facilities within the Study Area, with or without implementation of the Project.

Reduced Intensity Alternative

Assuming proportional reduction based on the reduced scope of development, the Reduced Intensity Alternative would generate approximately 80 percent of the trips generated by the Project. Based on this reduction in traffic volumes, the Reduced Intensity Alternative might require less extensive traffic improvements, although the reduction in trip generation under this Alternative may not be sufficient to realize any discernible difference in the extent or configuration of required traffic improvements. Proportional fair share fees for these improvements are reduced under the Reduced Intensity Alternative. Under either the Project or Reduced Intensity Alternative, cumulatively significant traffic impacts listed previously at Table 5.3-1 would persist.

5.3.3.2 Comparative Air Quality Impacts

Project construction and operations would generate additional air pollutant emissions. Even with application of mitigation, Project's operational-source NO_x emissions would exceed SCAQMD regional thresholds. These are significant Project-specific and cumulative air quality impacts. Additionally, the Project lies within a region classified as non-attainment for ozone and $PM_{10}/PM_{2.5}$. Project operational-source VOC and NO_x exceedances within the encompassing ozone nonattainment area (VOC and NO_x are ozone precursors) and $PM_{10}/PM_{2.5}$ non-attainment area (NO_x is precursor to $PM_{10}/PM_{2.5}$) would be cumulatively significant.

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No Build Alternative

Under the No Build Alternative, no construction activities or resultant site development would occur; and additional construction-source and/or operational-source air pollutant emissions would not be generated. Operational-source NO_x exceedances otherwise resulting from the Project would not occur. Air quality impacts in aggregate would be reduced when compared to the Project.

Reduced Intensity Alternative

Under the Reduced Intensity Alternative, the duration of site preparation and associated duration and frequency of peak construction-source air pollutant emissions may be reduced. Notwithstanding, the types of and scope of construction equipment used; disturbed acreage; and peak daily air pollutant emissions levels would not be substantively different than would otherwise result from the Project. As with the Project, construction-source air quality impacts would be less-than-significant under the Reduced Intensity Alternative.

The Reduced Intensity Alternative presented here would generally reduce operational source air pollutant emissions otherwise generated by the Project. As with the Project, operational-source NO_x emissions would however exceed applicable regional thresholds, and would be considered individually and cumulatively significant. The Reduced Intensity Alternative's operational-source NO_x exceedances within the encompassing ozone and $PM_{10}/PM_{2.5}$ non-attainment areas would be cumulatively significant. All other air quality impacts, already less than-significant under the Project (e.g., localized criteria pollutant emissions impacts, CO Hot Spots impacts, HRA impacts, and odors impacts) would be diminished under the Reduced Intensity Alternative.

5.3.3.3 Comparative Greenhouse Gas/Global Climate Change Impacts

As demonstrated in the Project Greenhouse Gas Analysis and the information presented at EIR Section 4.3, *Global Climate Change and Greenhouse Gas Emissions*, the Project would generate GHG emissions exceeding the City's threshold condition of 10,000 MTCO2e/year. On this basis, Project GHG emissions would be cumulatively

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considerable and significant. Further, the Project GHG analysis demonstrates that Project GHG emissions would not conform to GHG emissions reductions target established under AB32, and on this basis, Project GHG emissions would also be cumulatively considerable and significant.

No Build Alternative

No additional development would be implemented under the No Build Alternative, and no additional GHG emissions would generated. Significant GHG emissions impacts otherwise occurring under the Project would be avoided.

Reduced Intensity Alternative

The 20 percent reduction in development under this Alternative is specifically scoped to achieve the 10,000 MTCO2e/year GHG emissions threshold established by the City. The Reduced Intensity Alternative would generate approximately 9,680 MTCO2e/year, or 80 percent of GHG emissions otherwise generated by the Project.

Contributing to the aggregate reduction in GHG emissions noted above, the Reduced Intensity Alternative would result in diminished construction activities, thereby reducing construction-source GHG emissions. Building area and building energy consumption would also be reduced, thereby reducing the extent and scope of area-source GHG emissions otherwise generated by the Project. Yielding the greatest net reduction in GHG emissions, traffic and associated vehicular-source GHG emissions would be diminished under this Alternative. The Reduced Intensity Alternative would conform to practices, policies, and strategies outlined in the *City of Moreno Valley Energy Efficiency and Climate Action Strategy*.

On this basis, the Reduced Intensity Alternative would not cause or result in a substantial increase in Greenhouse Gas (GHG) emissions; would not exceed an applicable Lead Agency threshold of significance; and would comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. The Reduced Intensity Alternative's potential to contribute considerably (either individually or cumulatively)

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to a global climate change impact through GHG emissions would be incrementally reduced when compared to the Project, and would be considered less-than-significant.

5.3.3.4 Comparative Noise Impacts

Construction-source and operational-source noise impacts caused by, or resulting from, the Project would be less-than-significant.

No Build Alternative

No construction would occur under the No Build Alternative. Cumulatively significant construction-source noise impacts otherwise resulting from the Project would not occur under the No Build Alternative. Impacts would be diminished when compared to the Project.

No additional area/operational-source or traffic or vehicular-source noise would be generated under the No Build Alternative. Impacts would be decreased when compared to the Project.

Reduced Intensity Alternative

Under the Reduced Intensity Alternative, the duration of site preparation and associated duration and frequency of peak construction-source noise may be reduced. Notwithstanding, the types of construction equipment employed and their operational characteristics, including peak operating noise levels, would not be substantively different than would otherwise result from the Project. As with the Project, construction-source noise impacts would be less-than-significant under the Reduced Intensity Alternative.

Peak operational/area-source noise would likely be similar to the Project, and would be less-than-significant. The approximately 20 percent reduction in vehicle trips under the

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Reduced Intensity Alternative would act to reduce vehicular (mobile-source) noise levels along area roadways, although this decrease would likely be imperceptible.[8]

5.3.3.5 Comparative Hazards/Hazardous Materials Impacts

Hazards/hazardous materials impacts occurring under the Project would be less-than-significant.

No Build Alternative

Under the No Build Alternative, the Project site would be subject to potential hazards/hazardous conditions associated with operations of March Air Reserve Base/Inland Port Airport (MARB/IPA). The subject site is not otherwise substantively affected by hazards or hazardous conditions. No development of the site would occur under the No Build Alternative. Compared to the Project, the No Build Alternative would therefore result in diminished exposure of people and structures to MARB/Inland Port Airport operations. Less-than-significant hazards/hazardous materials impacts occurring under the Project would be diminished under the No Build Alternative.

Reduced Intensity Alternative

As with the Project, the Reduced Intensity Alternative would be required to demonstrate consistency with applicable Airport Land Use Compatibility Plan(s). The diminished scope of development under the Reduced Intensity Alternative would tend to reduce potential exposure to hazards and hazardous conditions associated with operations of MARB/Inland Port Airport. Less-than-significant hazards/hazardous materials impacts occurring under the Project would be further diminished under the under the Reduced Intensity Alternative**.**

[8] An audible (3.0 dBA) decrease/increase in vehicular-source noise typically requires a 50 percent reduction/doubling in traffic volumes.

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5.3.3.6 Comparative Hydrology/Water Quality Impacts

The Project would implement stormwater management system improvements and operational programs designed to ensure that Project stormwater discharges would be consistent with, and would not exceed, stormwater discharge rates and volumes anticipated under the RCFCWCD Master Plan of Drainage (MPD). Further, the Project would implement construction Storm Water Pollution Prevention Plans (SWPPPs) and operational Water Quality Management Plans (WQMPs) ensuring that stormwater discharges from the Project site would not adversely affect water quality. On this basis, the Project's impacts to hydrology and water quality as mitigated are considered less-than-significant.

No Build Alternative

Under the No Build Alternative, no development within the Project site would occur, and no additional stormwater runoff would be generated. The No Build Alternative would also preclude stormwater management system improvements that would otherwise be implemented under the Project. In this latter regard, controlled and treated stormwater discharges from the developed Project site would not result in new or increased adverse stormwater discharge conditions; and would likely represent improved stormwater discharge conditions in aggregate when compared to the current state of uncontrolled and untreated stormwaters released from the subject site. Potential hydrology/water quality impacts under the No Build Alternative would be less-than-significant.

Reduced Intensity Alternative

The diminished scope of development under the Reduced Intensity Alternative would tend to decrease the amount of impervious areas within the subject, and could reduce the rate and quantity of post-development stormwater runoff when compared to the Project. In this regard, the Project's already less-than-significant hydrology impacts would be further reduced under this Alternative. As with the Project, the Reduced Intensity Alternative would also comply with mandated SWPPP and WQMP requirements.

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5.3.3.7 Comparative Biological Resources Impacts

With application of proposed mitigation measures, the Project's potential impacts to biological resources would be less-than-significant.

No Build Alternative

No development would occur under the No Build Alternative, and no biological resources mitigation would be required. Potential impacts to biological resources would be less-than-significant, and would be reduced when compared to the Project.

Reduced Intensity Alternative

The reduction in overall site development realized under this Alternative could result in a portion of the site remaining, for the time being, in an undeveloped condition. Realistically, however, given the extent of necessary construction activities and areas disturbed by development operations, potential impacts to biological resources would likely be similar to those of the Project. As with the Project, mitigation would be provided that reduces potential impacts to biological resources to levels that are less-than-significant.

5.3.3.8 Comparative Cultural Resources/Tribal Cultural Resources Impacts

There are no known historic, archaeological, paleontological, or tribal cultural resources within the Project site. Additionally, the City has initiated consultation processes pursuant to *AB 52, Gatto. Native Americans: California Environmental Quality Act*, requirements. As of this writing, there is no indication from potentially affected Tribes that the Project would adversely affect any tribal cultural resources. Should as-yet-unidentified cultural/tribal cultural resources be encountered in the course of Project development, mitigation would be implemented requiring that construction activities be halted, allowing for identification, cataloguing; and as applicable, protection and preservation of resources. As mitigated, potential cultural/tribal cultural resources impacts of the Project would be less-than-significant.

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No Build Alternative

Under the No Build Alternative, no development of the site would occur, and there would be no requirement for cultural/tribal resources monitoring or other cultural/tribal resources mitigation otherwise required under the Project. Less-than-significant cultural resources/tribal cultural resources impacts occurring under the Project would be diminished under the No Build Alternative.

Reduced Intensity Alternative

Under the Reduced Intensity Alternative, the area to be disturbed with the Project site could be reduced when compared to the Project. As such, potential impacts would be similar to those of the Project, albeit at a reduced scale and/or affecting different locations within the subject site. As with the Project, mitigation would be implemented to ensure that initial site disturbance activities are monitored, and would be halted if the presence of cultural resources/tribal cultural resources is suspected, allowing for identification, cataloguing, and as applicable, protection and preservation of resources. As with the Project, potential cultural resources/tribal cultural resources impacts would be less-than-significant as mitigated.

5.3.4 Comparative Attainment of Project Objectives

Comparative Attainment of Project Objectives is summarized for each of the Alternatives considered here. For ease of reference, the Project Objectives are restated below.

Project Objectives

The primary goal of the Project is to develop high quality light industrial/business park uses accommodating a variety of prospective tenants. Complementary Project Objectives include the following:

- Implement the City's General Plan through development that is consistent with the General Plan Community Development Element and applicable General Plan Goals, Objectives, Policies and Programs;

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- Implement the Moreno Valley Industrial Area Plan through development that is consistent with the Area Plan land uses and development concepts, and in total supports the Area Plan Vision;
- Provide adequate roadway and wet and dry utility infrastructure to serve the Project;
- Accommodate warehouse and manufacturing uses that are compatible with adjacent land uses;
- Provide an attractive, efficient and safe environment for warehouse uses that is cognizant of natural and man-made conditions;
- Accommodate warehouse and manufacturing uses responsive to current and anticipated market demands;
- Establish new development that would increase locally available employment opportunities and would further the City's near-term and long-range fiscal goals and objectives; and
- Establish new development that would increase locally available employment opportunities thereby improving jobs/housing balance within the City.

No Build Alternative

Under the No Build Alternative, no development would occur, and none of the Project Objectives would be achieved.

Reduced Intensity Alternative

The Reduced Intensity Alternative would, to some degree, realize the Project Objectives. Reduced development intensity would however tend to diminish attainment of the following Objectives:

- Implement the City's General Plan through development that is consistent with the General Plan Community Development Element and applicable General Plan Goals, Objectives, Policies and Programs. *The Reduced Intensity Alternative at approximately 80 percent of the Project scope would eliminate or substantively reduce the scope of certain Project uses, acting to diminish full utilization and highest and best use of the subject site as envisioned under the General Plan.*

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- Implement the Moreno Valley Industrial Area Plan through development that is consistent with the Area Plan land uses and development concepts, and in total supports the Area Plan Vision. *The Reduced Intensity Alternative at approximately 80 percent of the Project scope would eliminate or substantively reduce the scope of certain Project uses, acting to diminish full utilization and highest and best use of the subject site as envisioned under the Moreno Valley Industrial Area Plan.*

- Establish new development that would increase locally available employment opportunities and would further the City's near-term and long-range fiscal goals and objectives. *The Reduced Intensity Alternative at approximately 80 percent of the Project scope would eliminate or substantively reduce the scope of certain Project uses, acting to diminish the scope and range of employment opportunities otherwise generated by the Project.*

5.3.5 Comparison of Alternatives

The *CEQA Guidelines* require that the environmentally superior alternative, other than the No Build (No Project) Alternative, be identified among the Project and other Alternatives considered in an EIR. The following Table 5.3-3 provides a summary, by topic, of the preceding alternatives analysis. Comparative impacts that have been identified as potentially less than those of the Project are indicated with **bold** text. Instances where impacts would be reduced from significant levels to levels that would be less-than-significant are indicated by **bold, shaded** text. Instances where impacts would likely be increased, or attainment of Project objectives would be impaired or diminished are indicated by *italicized* text. Normal font indicates no substantive differing impacts.

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Table 5.3-3
Summary of Potential Impacts, Alternatives Compared to Project, By Topic

Topic of Analysis	No Build Alternative	Reduced Intensity Alternative
Transportation/Traffic: Project-related traffic impacts would be significant at the Study Area facilities listed at Table 5.2-1.	**No new development would occur, and no additional traffic would be generated. Significant cumulative impacts at Study Area facilities occurring under the Project would persist.**	**Traffic generation would be reduced; the scope of mitigation and proportional fair share requirements could be reduced. Significant traffic impacts otherwise occurring under the Project would persist.**
Air Quality: Exceedances of regional thresholds for NO_x would be significant. NO_x exceedances would also be cumulatively considerable within the encompassing ozone and $PM_{10}/PM_{2.5}$ non-attainment areas. All other air quality impacts would be less-than-significant, or could be mitigated to levels that are less-than-significant.	**No additional construction-source or operational-source criteria air pollutant emissions would be generated under the No Build. Operational-source NO_x exceedances otherwise resulting from the Project would not occur.**	**Significant operational-source NO_x emissions air quality impacts would be reduced, but not eliminated. NO_x exceedances within ozone and $PM_{10}/PM_{2.5}$ non-attainment areas would remain cumulatively significant.**
Greenhouse Gas Emissions (GHG)/Global Climate Change (GCC): GHG/GCC impacts of the Project would be significant.	**No additional construction-source or operational-source GHG emissions would be generated under the No Build. Significant GHG emissions impacts resulting from the Project would not occur.**	**Under the Reduced Intensity Alternative, construction-source, area-source, energy-source and vehicular-source GHG emissions would be incrementally reduced. Significant GHG emissions impacts otherwise occurring under the Project would be reduced to levels that would be less-than-significant.**
Noise: Project construction-source and operational-source noise impacts would be less-than-significant.	**No construction would occur under the No Build Alternative. Less-than-significant construction-source noise impacts otherwise occurring under the Project would be diminished.** **No additional area-source noise or vehicular-source noise would be generated under the No Build Alternative. Less-than-significant operational-source noise impacts otherwise occurring under the Project would be diminished.**	The duration of construction-source noise impacts could potentially be reduced in duration. However, peak noise levels would be consistent with those occurring under the Project, and would remain significant. Daily traffic volumes and related vehicular-source noise levels may be reduced when compared to the Project. However, the reduction in traffic occurring under the Reduced Intensity Alternative would not be substantive enough to result in a perceptible difference in vehicular-source levels. In this latter regard, traffic

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Table 5.3-3
Summary of Potential Impacts, Alternatives Compared to Project, By Topic

Topic of Analysis	No Build Alternative	Reduced Intensity Alternative
		volumes would need to be halved (or doubled) in order for there to be a perceptible (3.0 dBA) change in vehicular-source noise levels.
Hazards/Hazardous Materials: As mitigated, potential hazards/hazardous materials impacts would be less-than-significant.	**No additional structures or populations would be exposed to potential hazards. Less-than-significant hazards/hazardous materials impacts otherwise occurring under the Project would be diminished.**	Impacts would be similar to those of the Project.
Hydrology/Water Quality: Stormwater management systems would be implemented to control and treat stormwater runoff, ensuring that storm drain systems and water quality are not adversely affected. Potential impacts are less-than-significant.	*Untreated and uncontrolled stormwater discharges for the subject site would persist. Hydrology/water quality impacts may be increased when compared to the controlled and treated stormwater discharge conditions resulting from the Project.*	Impacts would be similar to those of the Project.
Biological Resources: As mitigated, potential impacts to biological resources would be less-than-significant.	**No development would occur, and impacts would be incrementally decreased when compared to those of the Project. Less-than-significant biological resources impacts otherwise occurring under the Project would be diminished.**	Impacts would be similar to those of the Project.
Cultural Resources/Tribal Cultural Resources: Project site disturbance activities could affect cultural resources/tribal cultural resources; with mitigation, no significant impacts would result.	**No development would occur, and there would be no increased potential for disturbing buried cultural resources. Less-than-significant cultural resources/tribal cultural resources impacts otherwise occurring under the Project would be diminished.**	Impacts would be similar to those of the Project.
Relative Attainment of Project Objectives:	*None of the Project Objectives would be achieved.*	*The Reduced Intensity Alternative at approximately 80 percent of the Project scope would substantively diminish attainment of three fundamental Project Objectives.*

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As indicated at Table 5.3-3, on a topic-by-topic basis, the Reduced Intensity Alternative would result in the greatest reduction in environmental impacts when compared to the Project. This Alternative would avoid significant GHG emissions impacts otherwise occurring under the Project; and would reduce but not entirely eliminate or avoid the Project's significant traffic and air quality impacts. The Reduced Intensity Alternative would realize diminished attainment of certain of the basic Project Objectives. On this basis, and for the purposes of CEQA and the EIR Alternative Analysis, the Reduced Intensity Alternative would comprise the environmentally superior alternative.

While CEQA indicates that socioeconomic effects are not appropriate as a lone determinant in selection of an alternative, they are important considerations for decision-makers. With respect to socioeconomics, the Project and the Reduced Intensity Alternative would both have beneficial effects for the area. Either of these scenarios would contribute to area employment and the City's overall tax base. However, as noted previously, because the scope of land uses would be reduced under the Reduced Intensity Alternative, the resulting effective realization of the Project Objectives, to include economic benefits to the City and region, and full and comprehensive implementation of the City General Plan and the Moreno Valley Industrial Area Plan would likely be compromised.

5.4 GROWTH-INDUCING IMPACTS OF THE PROPOSED ACTION

5.4.1 Overview

The California Environmental Quality Act requires a discussion of the ways in which a project could be growth-inducing. (Pub. Resources Code, §21100, subd. (b)(5); *CEQA Guidelines*, § 15126, subd. (d), 15126.2, subd (d.).) The *CEQA Guidelines* identify a project as growth-inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of significance to the environment. New employees from commercial or industrial development and new population from residential development represent direct forms of growth. These direct forms of growth have a

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secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

A project could indirectly induce growth by reducing or removing barriers to growth, or by creating a condition that attracts additional population or new economic activity. However, a project's potential to induce growth does not automatically result in growth. Growth can only happen through capital investment in new economic opportunities by the private or public sectors. Development pressures are a result of economic investment in a particular locality. These pressures help to structure the local politics of growth and the local jurisdiction's posture on growth management and land use policy. The land use policies of local municipalities and counties regulate growth at the local level.

Impacts related to growth inducement would also be realized if a project provides infrastructure or service capacity which accommodates growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

5.4.2 Direct Growth-Inducing Effects

The Project would implement warehouse/light industrial uses allowed under, and in a manner consistent with, the Moreno Valley Industrial Area Plan and City General Plan. The Project does not propose or require a change in land use that would result in additional development and associated growth beyond that anticipated under the City General Plan. Nor does the Project propose or require a change in land use designations that would generate additional employment beyond that anticipated under the City General Plan.

Jobs which may be created by the Project would be characteristic of the types of warehouse/light industrial employment opportunities available within the region, and would likely be filled by the City's resident population, or that of neighboring

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municipalities. On this basis, employment opportunities created by the Project would not result in or cause a significant influx of workers and related unanticipated permanent growth-inducing effects.

Based on the preceding, the Project would not directly result in unanticipated significant population growth or other significant direct growth-inducing effects.

5.4.3 Indirect Growth-Inducing Effects

Investment in the Project would have local and regional economic impacts which may result in indirect growth-inducing effects. The Project's potential economic benefits could indirectly result in employment growth in the region. This growth, in combination with other anticipated employment growth in the region, could indirectly result in population growth and an increased demand for housing. Such growth has a variety of potential effects on the physical environment, including but not limited to, effects on air quality, ambient noise levels, traffic impacts, and water quality. The Project, in combination with other planned or anticipated projects in the area, would contribute to employment and population growth of the region.

Development of the Project as envisioned would entail upgrades to infrastructure in the immediate Project vicinity, including abutting roadways. Infrastructure improvements necessitated by the implementation of the Project could serve to facilitate and encourage development of nearby properties; however, City of Moreno Valley properties adjacent to the Project site are already developed or would be entitled for development pursuant to the Moreno Valley Industrial Area Plan. Development of these properties within the context of Moreno Valley Industrial Area Plan would not result in unforeseen or unmitigable impacts.

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5.5 SIGNIFICANT ENVIRONMENTAL EFFECTS

An EIR must identify any significant environmental effects that would result from the Project. (Pub. Resources Code, §21100, subd. (b)(2)(B).) The significant environmental impacts of the Project are summarized previously at Table 5.3-1, and restated below at Table 5.5-1.

Table 5.5-1
Summary of Significant and Unavoidable Impacts

Environmental Consideration	Comments
Traffic	
	The Project would construct, or pay required fees toward, completion of all necessary Study Area transportation/traffic system improvements. At the significantly-impacted locations noted below, the Project cannot feasibly construct the required improvements, and/or payment of fees would not assure their timely completion. **<u>Cumulatively Significant Impacts</u>** ***Intersections*** Pending completion of required improvements, the Project's incremental contributions to Opening Year Conditions cumulative traffic impacts at or affecting the following intersections are considered cumulatively significant and unavoidable: **Intersection ID No.** — **Intersection Location** 1 — I-215 SB Ramps/Harley Knox Blvd. 2 — I-215 NB Ramps/Harley Knox Blvd. 3 — Western Way/Harley Knox Blvd. 4 — Patterson Ave./Harley Knox Blvd. 7 — Indian St./Grove View Rd. 10 — Indian St./Harley Knox Blvd. ***Roadway Segments*** Pending completion of required improvements, the Project's incremental contributions to Opening Year Conditions cumulative traffic impacts at or affecting the following roadway segments are considered cumulatively significant and unavoidable: **Roadway Segment ID No.** — **Roadway** — **Segment Limits** 2 — Harley Knox Blvd. — I-215 NB Ramps to Western Way 3 — Harley Knox Blvd. — East of Western Way 4 — Harley Knox Blvd. — West of Patterson Ave. 9 — Indian St. — South of Nandina Ave. 10 — Indian St. — North of Grove View Rd. 11 — Indian St. — South of Grove View Rd.

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Table 5.5-1
Summary of Significant and Unavoidable Impacts

Environmental Consideration	Comments
	Freeway Facilities Pending completion of required improvements, the Project's incremental contributions to Opening Year Cumulative traffic impacts at or affecting the following freeway facilities are considered cumulatively significant and unavoidable: **Freeway Segment** 1 I-215, Northbound, University Avenue to Martin Luther King Boulevard 2 I-215, Northbound, Box Springs Road to SR-60/I-215 Freeway 3 I-215, Northbound, Eucalyptus Avenue to Alessandro Boulevard 4 I-215, Northbound, Ramona Expressway to Nuevo Road 5 I-215, Southbound, Eucalyptus Avenue to Alessandro Boulevard 6 I-215, Southbound, Ramona Expressway to Nuevo Road 7 SR-91, Westbound, Riverwalk Parkway to Magnolia Avenue
Air Quality	
	<u>Project-Specific Significant Impacts</u> **Operational-Source Pollutant Emissions Exceedances** Even after compliance with South Coast Air Quality Management District (SCAQMD) rules and regulations, and the application of EIR mitigation measures, operational pollutant emissions would exceed applicable SCAQMD regional emission thresholds for NO_x. These impacts are therefore individually significant. **<u>Cumulatively Significant Impacts</u>** **Operational-Source Pollutant Emissions Exceedances** Project-specific operational-source NO_x emissions exceedances are cumulatively significant over the life of the Project. **Non-Attainment Area Impacts** Project operational source NO_x emissions exceedances (NO_x is an ozone precursor; NO_x is also a $PM_{10}/PM_{2.5}$ precursor), in combination with NO_x emissions generated by other sources affecting the SCAB ozone and $PM_{10}/PM_{2.5}$ non-attainment areas, would result in a cumulatively considerable net increase in ozone and $PM_{10}/PM_{2.5}$ within the non-attainment areas. These are cumulatively significant impacts.
Greenhouse Gases/Global Climate Change	
	<u>Project-Specific Impacts</u> Project GHG emissions would individually exceed the 10,000 MTCO2e/year GHG emissions threshold employed by the City. Project GHG emissions would also not conform to State GHG emissions reductions targets established under AB32.

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Table 5.5-1
Summary of Significant and Unavoidable Impacts

Environmental Consideration	Comments
	Cumulatively Significant Impacts Project-specific GHG emissions exceedances would be cumulatively considerable in the context of existing GHG emissions levels and GHG emissions that would be generated by other known or probable GHG emissions sources.

5.6 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines § § 15126, subd. (c), 15126.2, subd. (c), 15127, require that for certain types or categories of projects, an EIR must address significant irreversible environmental changes that would occur should the Project be implemented. As presented at *Guidelines* §15127, the topic of Significant Irreversible Environmental Changes need be addressed in EIRs prepared in connection with any of the following activities:

(a) The adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency;

(b) The adoption by a local agency formation commission of a resolution making determinations; or

(c) A project which will be subject to the requirements for preparing of an environmental impact statement pursuant to the requirements of the National Environmental Policy Act of 1969, 42 U.S.C. 4321-4347.

The Project does not propose or require any of the above actions, and is not subject to *CEQA Guidelines* § § 15126, subd. (c), 15126.2, subd. (c), 15127 requirements.

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5.7 ENERGY CONSERVATION

5.7.1 Overview

Consistent with *CEQA Guidelines* Appendix F, this Section of the EIR addresses the potential for the Project to result in the inefficient, wasteful, or unnecessary consumption of energy. For new development such as that proposed by the Indian Street Commerce Center Project, compliance with California Title 24 energy efficiency requirements is considered demonstrable evidence of efficient use of energy. As discussed below, the Project would provide for, and promote, energy efficiencies beyond those required under applicable state or federal standards and regulations, and in so doing would meet or exceed all Title 24 standards. Moreover, energy consumed by the Project would be comparable to, or less than, energy consumed by other development proposals of similar scale and intensity. On this basis, the Project would not result in the inefficient, wasteful or unnecessary consumption of energy, and potential Project impacts in these regards are less-than-significant. Further, the Project would not cause or result in the need for additional energy producing facilities or energy delivery systems. The Project, therefore, would not create or result in a potentially significant impact on energy resources.

5.7.2 Background and Introduction

In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted AB 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs; license thermal power plants of 50 megawatts or larger; develop energy technologies and renewable energy resources; plan for and direct responses to energy emergencies; and, perhaps most importantly, to promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards.

Germane to the Project and this EIR, AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the potential for wasteful, inefficient, and/or unnecessary consumption of energy caused by or resulting from a project. Appendix F to the *CEQA Guidelines* assists EIR preparers in this regard. More

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specifically, Appendix F is an advisory document establishing parameters and context for determining whether a project would result in the inefficient, wasteful, and unnecessary consumption of energy.

5.7.3 Existing Conditions

5.7.3.1 Overview

California's estimated annual energy use as of 2015 included:

- Approximately 287,104 gigawatt hours of electricity;[9]
- Approximately 12,687 million therms natural gas (approximately 3.5 billion cubic feet of natural gas per day);[10] and
- Approximately 18 billion gallons of gasoline.[11]

As of 2013, energy use in California by demand sector was:

- Approximately 37.8 percent transportation;
- Approximately 23.6 percent industrial;
- Approximately 19.3 percent residential; and
- Approximately 19.3 percent commercial.[12]

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[9] California Energy Commission. "California Energy Demand 2014-2024 Revised Forecast, Volume 1: Statewide Electricity Demand, End-User Natural Gas Demand, and Energy Efficiency - Staff Final Report" (page 2, Mid Energy Demand). *California Energy Commission*. Ed. California Energy Commission. CEC, 10 Jan. 2014. Web. 17 Oct. 2015.

[10] Ibid. page 5, Mid Energy Demand.

[11] California Energy Commission. "2013 Integrated Energy Policy Report" (p. 255). *California Energy Commission.* Ed. California Energy Commission. CEC, n.d. Web. 17 Oct. 2015.

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A summary of, and context for, energy consumption and energy demands within the State is presented in *U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts* excerpted below:

- Excluding federal offshore areas, California ranked third in the nation in crude oil production in 2013, despite an overall decline in production rates since the mid-1980s.

- California also ranked third in the nation in refining capacity as of January 2014, with a combined capacity of almost 2 million barrels per calendar day from its 18 operable refineries.

- In 2012, California's per capita energy consumption ranked 49th in the nation; the state's low use of energy was due in part to its mild climate and its energy efficiency programs.

- In 2013, California ranked fourth in the nation in conventional hydroelectric generation, second in net electricity generation from other renewable energy resources, and first as a producer of electricity from geothermal energy.

- In 2013, California ranked 15th in net electricity generation from nuclear power after one of its two nuclear plants was taken out of service in January 2012; as of June 2013, operations permanently ceased at that plant, the San Onofre Nuclear Generating Station.

- Average site electricity consumption in California homes is among the lowest in the nation (6.9 megawatt hours per year), according to EIA's Residential Energy Consumption Survey. [13]

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[12] U.S. Energy Information Agency. "California State Profile and Energy Estimates." *U.S. Energy Information Agency*. U.S. IEA, 17 Sept. 2015. Web. 17 Oct. 2015.
[13] U.S. Energy Information Administration. "California State Profile and Energy Estimates. California Energy Consumption by End-Use Sector." *U.S. Energy Information Administration.* Web. 17 Oct. 2015.

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As indicated above, California is one of the nation's leading energy-producing states, and California per capita energy use is among the nation's most efficient.

5.7.3.2 Electricity and Natural Gas Resources

Electricity

Electricity would be provided to the Project by Southern California Edison (SCE). SCE provides electric power to an estimated 15 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles.[14] SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers.

California's electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. The California Independent Service Operator ("ISO") is a nonprofit public benefit corporation, and is the impartial operator of the State's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California residential and commercial users. While utilities [such as SCE] still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that sufficient power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities.[15]

[14] Southern California Edison. "About Us. Who We Are." *Southern California Edison*. Web. 17 Oct. 2015.
[15] California ISO. "Understanding the ISO." *California ISO - Our Business*. California ISO, n.d. Web. 17 Oct. 2015.

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Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, transmission owners (investor-owned utilities such as SCE) file annual transmission expansion/modification plans to accommodate the State's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the State.

Natural Gas

Natural gas would be provided to the Project by The Gas Company (Southern California Gas, SoCalGas). The following summary of natural gas resources and service providers, delivery systems, and associated regulation is excerpted from information provided by the California Public Utilities Commission (PUC).

> The California Public Utilities Commission (PUC) regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.
>
> The vast majority of California's natural gas customers are residential and small commercial customers, referred to as "core" customers, who accounted for approximately 32% of the natural gas delivered by California utilities in 2012. Large consumers, like electric generators and industrial customers, referred to as "noncore" customers, accounted for approximately 68% of the natural gas delivered by California utilities in 2012.
>
> The PUC regulates the California utilities' natural gas rates and natural gas services, including in-state transportation over the utilities'

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transmission and distribution pipeline systems, storage, procurement, metering and billing.

Most of the natural gas used in California comes from out-of-state natural gas basins. In 2012, California customers received 35% of their natural gas supply from basins located in the Southwest, 16% from Canada, 40% from the Rocky Mountains, and 9% from basins located within California. California gas utilities may soon also begin receiving biogas into their pipeline systems.

Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California consumers are the Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, the Ruby Pipeline, Questar Southern Trails and Mojave Pipeline. Another pipeline, the North Baja – Baja Norte Pipeline, takes gas off the El Paso Pipeline at the California/Arizona border, and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, the PUC often participates in FERC regulatory proceedings to represent the interests of California natural gas consumers.

Most of the natural gas transported via the interstate pipelines, as well as some of the California-produced natural gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipeline systems (commonly referred to as California's "backbone" natural gas pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered into the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large noncore customers take natural gas directly off the high-pressure backbone pipeline systems, while core customers and other noncore customers take natural gas off the utilities'

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distribution pipeline systems. The PUC has regulatory jurisdiction over 150,000 miles of utility-owned natural gas pipelines, which transported 82% of the total amount of natural gas delivered to California's gas consumers in 2012.

SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, and currently receive all of their natural gas from the SoCalGas system (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area). Some other municipal wholesale customers are the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.

Some of the natural gas delivered to California customers may be delivered directly to them without being transported over the regulated utility systems. For example, the Kern River/Mojave pipeline system can deliver natural gas directly to some large customers, "bypassing" the utilities' systems. Much of California-produced natural gas is also delivered directly to large consumers.

PG&E and SoCalGas own and operate several natural gas storage fields that are located in northern and southern California. These storage fields, and four independently owned storage utilities – Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage – help meet peak seasonal natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. (A portion of the Gill Ranch facility is owned by PG&E).

California's regulated utilities do not own any natural gas production facilities. All of the natural gas sold by these utilities must be purchased from suppliers and/or marketers. The price of natural gas sold by suppliers and marketers was deregulated by the FERC in the mid-1980's and is determined by "market forces." However, the PUC decides

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> whether California's utilities have taken reasonable steps in order to minimize the cost of natural gas purchased on behalf of their core customers.[16]

As indicated in the preceding discussions, natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The PUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State.

5.7.3.3 Transportation Energy Resources

The Project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline. Gasoline (and other vehicle fuels) are commercially-provided commodities, and would be available to the Project patrons and employees via commercial outlets.

There are more than 27 million registered vehicles in California, and those vehicles consume an estimated 18 billion gallons of fuel each year. Petroleum comprises approximately 92 percent of California's transportation energy sources. Notwithstanding, technology advances, market trends, consumer behavior, and government policies could result in significant changes in fuel consumption by type and in total by 2020.[17]

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[16] California Public Utilities Commission. "Natural Gas and California." *Natural Gas and California*. CPUC, 7 Sept. 2013. Web. 17 Oct. 2015.

[17] CEC. "2013 Integrated Energy Policy Report." *2013 Integrated Energy Policy Report*. CEC, n.d. Web. 17 Oct. 2015.

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In these regards, at the federal and state levels various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and GHG emissions, and reduce vehicle miles traveled (VMT). Market forces have spurred increases in the price of petroleum product and/or has acted to control supplies; and technological advances have made use of other energy resources or alternative transportation modes increasingly feasible.

Largely as a result of, and in response to these multiple factors, gasoline consumption within the state has declined in recent years, while availability of other alternative fuels/energy sources has increased. In total, the quantity, availability, and reliability of transportation energy resources have increased in recent years, and this trend may likely continue and accelerate. Increasingly available and diversified transportation energy resources act to promote continuing reliable and affordable means to support vehicular transportation within the State.

5.7.4 Regulatory Setting

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. On the state level, the PUC and the CEC are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below. Project consistency with applicable federal and state regulations is also presented in *italicized* text.

5.7.4.1 Federal Energy Policy and Conservation Act

The Federal Energy Policy and Conservation Act of 1975 (Act) intends that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the United States Department of Transportation, is responsible for establishing

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additional vehicle standards and for revising existing standards. *Vehicles accessing the Project site are subject to the Federal Energy Policy and Conservation Act (Act). The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of the Act.*

5.7.4.2 Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions. *Transportation and access to the Project site is provided primarily by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA.*

5.7.4.3 The Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety. *The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access; acts to reduce vehicle miles traveled; takes advantage of existing infrastructure systems; and promotes land use compatibilities by implementing The City of Moreno Valley General Plan and The Moreno*

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Valley Industrial Area Plan (MVIAP) through the introduction of a warehouse/light industrial, development at the subject site. In this manner, the Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21.

5.7.4.4 State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access. *The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access; acts to reduce vehicle miles traveled; takes advantage of existing infrastructure systems; and promotes land use compatibilities by implementing The City of Moreno Valley General Plan and The Moreno Valley Industrial Area Plan (MVIAP) through the introduction of a warehouse/light industrial, development at the subject site. The Project therefore supports urban design and planning processes identified in the State of California Energy Plan, is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan.*

5.7.4.5 California Code Title 24, Part 6, Energy Efficiency Standards

California Code Title 24, Part 6 (also referred to as the California Energy Code), was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption. To these ends, the California Energy Code provides energy efficiency standards for residential and nonresidential

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buildings. According to the CEC, the Energy Commission's energy efficiency standards have saved Californians more than $74 billion in reduced electricity bills since 1977.[18]

California's building efficiency standards are updated on an approximately three-year cycle. The 2013 Standards would continue to improve upon the 2008 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2013 Standards went into effect on July 1, 2014, following approval of the California Building Standards Commission.

The 2013 Energy Efficiency Standards in their entirety may be reviewed at: http://www.energy.ca.gov/title24/2013standards/. The 2013 Energy Efficiency Standards may also be reviewed at the California Energy Commission, 1516 Ninth Street, MS-37, Sacramento, CA 95814-5512. *The Project would be designed, constructed and operated so as to meet or exceed incumbent Title 24 Energy Efficiency Standards. On this basis, the Project is determined to be consistent with, and would not interfere with, nor otherwise obstruct implementation of Title 24 Energy Efficiency Standards.*

5.7.4.6 City of Moreno Valley Energy Efficiency and Climate Action Strategy

The *City of Moreno Valley Energy Efficiency and Climate Action Strategy* (City of Moreno Valley) October 9, 2012 (CAS) establishes practices, policies, and strategies directed at conservation and efficient use of energy and water that would collectively act to reduce municipal and community greenhouse gas emissions. The CAS establishes a year 2020 GHG emissions reductions target representing a 15% decrease in baseline (2010) City GHG emissions levels.

Development within the Project site would comply with the City of Moreno Valley Energy Efficiency and Climate Action Strategy, *thereby promoting conservation of resources and*

[18] CEC. "California's Energy Efficiency Standards Have Saved $74 Billion." *California's Energy Efficiency Standards Have Saved $74 Billion*. CEC, n.d. Web. 17 Oct. 2015.

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efficient use of energy and water by Project facilities. Please refer also to EIR Section 3.0, Project Description; *3.4.10,* Energy Efficiency/Sustainability.

5.7.5 Project Energy Demands and Energy Efficiency/Conservation Measures

Estimated energy demands of Project construction and Project operations are summarized in the following discussions. Project design features and operational programs, as well as regulations and EIR Mitigation Measures that promote energy conservation are also identified. The Project in total would surpass by a minimum of 5 percent incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Energy Efficiency Standards). Further, contractors and owners have vested financial incentives to avoid wasteful, inefficient, and unnecessary consumption of energy during construction and operations. In summary, there is growing recognition among developers and retailers that efficient and sustainable construction and operational practices yield both environmental and economic benefits.

5.7.5.1 Construction Energy Demands and Energy Efficiency/Conservation Measures

Construction Energy Demands

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented at Table 5.6-1. Eight-hour daily use of all equipment is assumed. For the purposes of this analysis, it is assumed that all construction equipment would be diesel-powered. Diesel fuel would be supplied by existing commercial fuel providers serving the City and region. The aggregate fuel consumption rate for all equipment is estimated at 18.5 hp-hr-gal., obtained from CARB 2013 Emissions Factors Tables and cited fuel consumption rate

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factors presented in Table D-24 of the Moyer guidelines.[19] As presented at Table 5.7-1, Project construction activities would consume an estimated 162,156 gallons of diesel. Project construction would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

Table 5.7-1
Construction-Source Fuel Consumption Estimates

Activity/ Duration	Equipment	HP Rating	Quantity	Use Hours/Day	Load Factor	HP-hrs./day	Total Fuel Consumption (gal. diesel fuel)
Site Preparation (10 days)	Crawler Tractors	208	2	8	0.43	1,431	770
	Excavators	162	4	8	0.38	2,462	1,330
	Water Trucks	189	2	8	0.50	1,512	820
	Rubber Tired Dozers	255	4	8	0.40	3,264	1,760
Grading (30 Days)	Crawler Tractors	208	2	8	0.43	1,431	2,310
	Graders	174	4	8	0.41	2,283	3,690
	Water Trucks	189	2	8	0.50	1,512	2,460
	Rubber Tired Dozers	255	2	8	0.40	1,632	2,640
	Scrapers	361	4	8	0.48	5,560	9,030
Building Construction (300 days)	Cranes	226	1	8	0.29	524	8,400
	Forklifts	89	3	8	0.20	427	6,900
	Generator Sets	84	1	8	0.74	497	8,100
	Tractors/Loaders/ Backhoes	97	3	8	0.37	861	14,100
	Welders	46	1	8	0.45	166	2,700
Paving (20 Days)	Pavers	125	2	8	0.42	840	900
	Paving Equipment	130	2	8	0.36	749	800
	Rollers	80	2	8	0.38	486	520

[19] *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects for Evaluating Motor Vehicle Registration Fee Projects and Congestion Mitigation and Air Quality Improvement (CMAQ) Projects, Emission Factor Tables* (California Air Resources Board) May 2013; Table D-24 Moyers Guidelines Fuel Consumption Rate Factors -All Engines < 750 hp = 18.5 hp-hr-gal.

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Table 5.7-1
Construction-Source Fuel Consumption Estimates

Activity/ Duration	Equipment	HP Rating	Quantity	Use Hours/Day	Load Factor	HP-hrs./day	Total Fuel Consumption (gal. diesel fuel)
Architectural Coating (40 Days)	Air Compressors	62	4	8	0.31	615	1,320
	Aerial Lifts	78	4	8	0.48	1,198	2,600
TOTAL CONSTRUCTION FUEL DEMAND (gallons diesel fuel)							**71,150**

Notes: Construction equipment schedules, power ratings, load factors populated from CalEEMod data presented in *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) July 7, 2016.

Construction Energy Efficiency/Conservation Measures

Equipment used for Project construction would conform to CARB regulations and CA emissions standards, and would evince related fuel efficiencies. There are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the Project would therefore not result in inefficient, wasteful, or unnecessary consumption of fuel.

Additionally, certain incidental construction-source energy efficiencies would likely accrue through implementation of California regulations, the City of Moreno Valley *Energy Efficiency and Climate Action Strategy* (City of Moreno Valley) April 2012 (Climate Action Strategy) and the EIR Mitigation Measures. More specifically, California Code of Regulations Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. The City of Moreno Valley Climate Action Strategy and EIR Mitigation Measure 4.2.2 reinforce this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

Indirectly, construction energy efficiencies and energy conservation would be achieved through the use of recycled/recyclable materials and related procedures; and energy efficiencies realized from bulk purchase, transport and use of construction materials. In

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general, the use of materials and construction processes described herein promote conservation and efficient use of energy by reducing raw materials demands, with related reduction in energy demands associated with raw materials extraction, transportation, processing and refinement. Use of recycled and recyclable materials and use of materials in bulk as described below also reduces energy demands associated with preparation and transport of construction materials as transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations.

Construction Waste Management Plan

Consistent with Section 5.408, *Construction Waste Reduction, Disposal, and Recycling* of the California Green Building Standards Code (CALGreen Code), as adopted by the City of Moreno Valley, the Project would recycle or salvage for reuse a minimum of 50 percent of the nonhazardous construction and demolition waste. A Project Construction Waste Management Plan would also be prepared consistent with Section 5.408.1.1 of the CALGreen Code.

Summary

Construction equipment used by the Project would result in single event consumption of approximately 71,150 gallons of diesel fuel. Diesel fuel would be supplied by City and regional commercial vendors. Construction equipment use of fuel would not be atypical for the type of construction proposed, and Project construction equipment would conform to CARB emissions standards, acting to promote equipment fuel efficiencies. CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. The City of Moreno Valley Climate Action Strategy and EIR Mitigation Measure 4.2.2 reinforce State-mandated equipment idling restrictions. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints. Indirectly, construction energy efficiencies and energy conservation would be achieved through the use of recycled/recyclable materials and related procedures; and energy

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efficiencies realized from bulk purchase, transport and use of construction materials. As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

5.7.5.2 Operational Energy Demands and Energy Efficiency/Conservation Measures

Energy consumption in support of, or related to, Project operations would include transportation energy demands (energy consumed by employee and patron vehicles accessing the Project site) and facilities energy demands (energy consumed by building operations and site maintenance activities).

Transportation Energy Demands

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. With respect to estimated VMT, the Project would generate an estimated total 35.9 million annual VMT along area roadways.[20] With regard to vehicle fuel economies, approximately 60 percent of the Project VMT would be generated by Light Duty Vehicles (LDVs); with the remaining approximately 40 percent of the Project VMT generated by Heavy Duty Vehicles (HDVs). Gasoline is assumed to be the primary fuel for LDVs; and diesel fuel is assumed as the primary fuel for HDVs. As presented in *Annual Energy Outlook 2015, with projections to 2040* (U.S. Energy Information Administration USEIA) April 2015, average fuel economies of LDVs are projected to improve from approximately 21.9 mpg in 2013, to approximately 37.0 mpg by 2040.[21] *Annual Energy Outlook 2015* also estimates that average fuel economies of HDVs are projected to improve from approximately 6.7 mpg in 2013, to approximately 7.8 mpg by 2040.[22] Fuel demands of all vehicles accessing the Project site would be met through commercial fuel providers. Estimated Project

[20] Estimated VMT from: *Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley* (Urban Crossroads, Inc.) March 8, 2016.
[21] "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." *Annual Energy Outlook 2015*. USIEA, 14 Apr. 2015. Web. 18 Oct. 2015.
[22] Ibid.

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transportation energy demands resulting from vehicle fuel consumption are summarized at Table 5.7-2.

Table 5.7-2
Project-Generated Traffic Annual Fuel Consumption

Annual Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
Light Duty Vehicles		
2,199,046	21.9	100,413
2,199,046	37.0	59,434
Heavy Duty Vehicles		
7,847,733	6.7	1,171,303
7,847,733	7.8	1,006,120

Notes: Estimated VMT from: *Indian Street Commerce Center Greenhouse Gas Analysis* (Urban Crossroads, Inc.) July 7, 2016; Average fuel economies from: *Annual Energy Outlook 2014, with projections to 2040* (U.S. Energy Information Administration, USEIA) April 2014, p. MT-14.

Facilities Energy Demands

Project building operations and Project site maintenance activities would result in the consumption of natural gas and electricity. Natural gas would be supplied to the Project by The Gas Company; electricity would be supplied to the Project by SCE. Annual natural gas and electricity demands of the Project are summarized at Table 5.7-3.

Table 5.7-3
Project Annual Operational Energy Demand Summary

Land Use	Electricity Use (kWh/yr.)	Natural Gas Use (kBTU/yr.)
Warehouse	1,013,041	607,750
Manufacturing	920,154	2,669,840
Totals	**1,933,195**	**3,277,590**

Source: *Indian Street Commerce Center Greenhouse Gas Analysis* (Urban Crossroads, Inc.) July 7, 2016.

Energy Efficiency/Sustainability

Energy-saving and sustainable design features and operational programs incorporated in the Project are listed below. Please refer also to related discussions presented at EIR Section 3.0, *Project Description*; 3.4.10 *Energy Efficiency/Sustainability*.

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- The Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provider that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City. All on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines.

- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:

  - Sidewalks along the Project site's Indian Street frontage would be constructed as part of the Project, and would connect to existing and planned sidewalks to the north and south of the Project site. Facilitating pedestrian access encourages people to walk instead of drive. The Project would not impose barriers to pedestrian access and interconnectivity.

  - Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery vendor truck trips.

- To reduce water demands and associated energy use, development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water

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Conservation Strategy).[23] Development proposals within the Project site would also be required to implement the following:

- Landscaping palette emphasizing drought tolerant plants consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

- Use of water-efficient irrigation techniques consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

- U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and other plumbing fixtures.

Additionally, the Project in total would surpass, by a minimum of 5%, incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards).

Enhanced Vehicle Fuel Efficiencies

Estimated annual fuel consumption estimates presented previously at Table 5.6-2 represent likely potential maximums that would occur under Project 2020 Conditions. Under future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel efficient vehicles are removed from

[23] Reduction of 20% indoor water usage is consistent with the current CalGreen Code performance standards for residential and non-residential land uses. Per CalGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

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circulation; and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system.

Project Location and Access

The Project proposes warehouse and manufacturing uses located proximate to patrons, and employees, and is readily accessible from regional and local roadways. In this manner, the Project at its current location acts to reduce vehicle miles traveled (VMT) within the region and associated consumption of resources.

Alternative Transportation Modes

Bus Service

Bus service is currently provided to the Project area by the Riverside Transit Authority (RTA), a public transit agency serving the unincorporated Riverside County region and the City of Moreno Valley. In the vicinity of the Project site, RTA currently provides bus service along Perris Boulevard via Route 19. Transit route and schedules are presented at: http://www.riversidetransit.com/index.php/riding-the-bus/maps-schedules. Bus services available to the Project area act to reduce VMT within the region.

Pedestrian and Bicycle Facilities

The Project would provide perimeter and internal walkways consistent with City requirements, encouraging pedestrian access. Indian Street, the easterly Project boundary, is a Class III Bike Route. Class III Bike Routes are on-street signed routes shared with motor vehicle traffic. The Project would provide bicycle amenities consistent with City requirements, thereby facilitating use of bicycles and decreased dependency on personal vehicles.

Landscaping

Landscaping throughout the Project site would be provided consistent with City of Moreno Valley requirements, and recognizing competing demands for available water resources. Drought-tolerant plants would be used, where appropriate, reducing water consumption and power demand related to water delivery/irrigation systems. The Project would connect to the recycled water distribution system when available to the

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Project site, further reducing potable water demands of the Project. Reduced water consumption provides corollary energy conservation benefits by reducing related water/wastewater conveyance and treatment energy consumption.

Solid Waste Diversion/Recycling

The Project would comply with State of California, County of San Bernardino, and City of Moreno Valley requirements acting to reduce the amount of solid waste transported to, and disposed at area landfills, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations.

Summary

Transportation Energy Demands

Vehicular trips and related VMT generated by the Project would result in an estimated 59,434 to 100,413 gallons of gasoline consumption per year; and an estimated 1,006,120 to 1,171,303 gallons of diesel consumption per year. Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other uses of similar scale and configuration. That is, the Project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, bio fuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to its patronage base, and proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. Collocation of complementary uses within the Project site also acts to reduce VMT by facilitating access to services and facilities by single rather than multiple vehicle trips.

The Project would also implement sidewalks and pedestrian paths, thereby encouraging pedestrian access. Bicycle facilities implemented and accommodated by

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the Project would facilitate and encourage use of bicycles. Provision of pedestrian and bicycle facilities under the Project would reduce VMT and associated energy consumption.

Transit services are provided to the Project area by the Riverside Transit Authority. The need for transit-related facilities serving the Project would be coordinated between the City and the Project Applicant, with input from transit providers as applicable, as part of the City's standard development review process.

Facilities Energy Demands

Project facility operational energy demands are estimated at: 3,266,590 kBTU/year natural gas; and 1,933,195 kWh/year electricity. Natural gas would be supplied to the Project by The Gas Company; electricity would be supplied by SCE. The Project proposes conventional development types, reflecting contemporary energy efficient/energy conserving designs and operational programs. Uses proposed by the Project are not inherently energy intensive, and the Project energy demands in total would be comparable to, or less than, other similar projects of like scale and configuration.

Additionally, the Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provider that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City. Use of renewable energy conserves energy resources and promotes sustainability.

Energy demands of the Project are reduced through design features and operational programs that in aggregate would ensure that Project energy efficiencies would surpass incumbent Title 24 energy efficiency requirements by a minimum of 5 percent. Various

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energy conserving features and operational programs that would be realized under the Project are described previously.

Based on the preceding, Project facilities energy demands and energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

5.7.6 Conclusion

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy, and potential Project impacts in these regards are less-than-significant. Further, energy demands of the Project can be accommodated within the context of available resources and energy delivery systems. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities and would not create or result in a potentially significant impact affecting energy resources or energy delivery systems.

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6.0 ACRONYMS AND ABBREVIATIONS

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6.0 ACRONYMS AND ABBREVIATIONS

ACMs	Asbestos Containing Materials
ADT	Average Daily Traffic
ALUCP	Airport Land Use Compatibility Plan
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
AST	above-ground storage tank
AVO	Average Vehicle Occupancy
BAT	best available technology
BCT	best conventional pollutant control technology
BMP	Best Management Practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalARP	California Accidental Release Prevention Program
CalEPA	California Environmental Protection Agency
CALINE4	California Line Source Dispersion Model
Cal/OSHA	California Department of Industrial Relations, Division of Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAO	Chino Airport Overlay
CARB	California Air Resources Board
CAT	Climate Action Team
CBC	California Building Code
CBDA	Chino Basin Dairy Area
CCAA	California Clean Air Act
CCAR	California Climate Action Registry

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CCR	California Code of Regulations
CC&Rs	Covenants, Conditions and Restrictions
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH_4	Methane
CIWMB	California Integrated Waste Management Board
CMP	Congestion Management Plan
CNEL	Community Noise Equivalent Level
CO	Carbon monoxide
CO_2	Carbon dioxide
CPUC	California Public Utilities Commission
CRA	Community Redevelopment Agency
CRWQCB	California Regional Water Quality Control Board
CTP	Comprehensive Transportation Plan
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DHS	California Department of Health Services
DIF	Development Impact Fees
DOT	U. S. Department of Transportation
DPM	Diesel Particulate Matter
DTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
EPA	Environmental Protection Agency

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ESA	Environmental Site Assessment
FCAA	Federal Clean Air Act
Fed/OSHA	Federal Occupational Safety and Health Administration
FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise
FIRM	Flood Insurance Rating Map
FMMP	Farmland Mapping & Monitoring Program
fpm	feet per minute
GCC	Global Climate Change
GHG	Greenhouse Gas
GMP	Growth Management Plan
gpd	gallons per day
HCM	Highway Capacity Manual
HDV	Heavy-Duty Vehicle
HOV	High Occupancy Vehicle
HRA	Health Risk Assessment
HSC	Health and Safety Code
HSWA	Hazardous and Solid Waste Amendments Act
HUD	U. S. Department of Housing and Urban Development
ICU	Intersection Capacity Utilization
IEUA	Inland Empire Utilities Agency
IS	Initial Study
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
kV	kilovolt
kVA	kilovolt-ampere
LBP	Lead-Based Paint
Ldn	day/night average sound level
LDV	Light-Duty Vehicle
LEA	Local Enforcement Agency

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Leq	equivalent sound level
LEED	Leadership in Energy and Environmental Design
LOS	Level of Service
LST	Localized Significance Threshold
M	Richter Magnitude
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
MOE	Measure of Effectiveness
MPE	maximum probable earthquake
mph	miles per hour
MPO	Metropolitan Planning Organization
MPODC	Master Plan and Overall Design Concept
MRF	Material Recovery Facility
MSHCP	Multiple Species Habitat Conservation Plan
msl	mean sea level
MSW	Municipal Solid Waste
MTA	Metropolitan Transit Authority
$\mu g/m^3$	micrograms per cubic meter
NAAQS	National Ambient Air Quality Standards
NDFE	Non-Disposal Facility Element
NIH	National Institutes of Health
NO_2	Nitrogen dioxide
NOI	Notice of Intent
NOP	Notice of Preparation
NO_x	Oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRC	Nuclear Regulatory Commission
NTS	Natural Treatment System
O_3	Ozone
OAP	Ozone Attainment Plan
OEHHA	California Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services

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OSHA	Occupational Safety and Health Administration
PA	Preliminary Assessment
Pb	Lead
PCE	passenger car equivalency
$PM_{2.5}$	Particulate Matter Less Than 2.5 Microns in Diameter
PM_{10}	Particulate Matter Less Than 10 Microns in Diameter
ppm	parts per million
PV	Photovoltaic
RCRA	Resource Conservation and Recovery Act
REMEL	Reference Energy Mean Emission Level
RMP	Resources Management Plan
ROG	Reactive Organic Gases
RTA	Riverside Transit Authority
RWMP	Regional Water Management Plan
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments & Reauthorization Act
SARWQCB	Santa Ana Regional Water Quality Control Board
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCH	State Clearinghouse
SCUP	Special Conditional Use Permit
SIP	State Implementation Plan
SLM	Sound Level Meter
SO_x	Oxides of sulfur
SRRE	Source Reduction and Recycling Element
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TDS	total dissolved solids
TEA-21	Transportation Equity Act for the 21st Century
TIA	Traffic Impact Analysis

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TPD	tons per day
UBC	Uniform Building Code
UFC	Uniform Fire Code
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
V/C	Volume to Capacity
VdB	vibration decibel
VMT	vehicle miles traveled
VOC	Volatile Organic Compound
WQMP	Water Quality Management Plan
WSA	Water Supply Assessment

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7.0 REFERENCES

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7.0 REFERENCES

PERSONS AND ORGANIZATIONS CONSULTED

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DOCUMENTS CONSULTED

A Phase I Cultural Resources Survey for the Proposed Commercial Development (Approximately 20 Acres) in the City of Moreno Valley, Riverside County, California (McKenna et al.) February 21, 2016.

Biological Property Evaluation for Sensitive Biological Resources for a Proposed Project Located at 17845 Indian Street Located in the City of Moreno Valley, Riverside County, California (Michael Baker International) August 21, 2015.

Guidelines for Implementation of the California Environmental Quality Act, Sections 15000-15387 of the California Code of Regulations, Governor's Office of Planning and Research.

Indian Street Commerce Center Air Quality Impact Analysis, City of Moreno Valley (Urban Crossroads, Inc.) July 7, 2016.

Indian Street Commerce Center Greenhouse Gas Analysis, City of Moreno Valley (Urban Crossroads, Inc.) July 7, 2016.

Indian Street Commerce Center Mobile Source Diesel Health Risk Assessment, City of Moreno Valley (Urban Crossroads, Inc.) July 7, 2016.

Indian Street Commerce Center Noise Impact Analysis, City of Moreno Valley (Urban Crossroads, Inc.) June 23, 2016.

Indian Street Commerce Center Supplemental Basic Freeway Segment Analysis (Urban Crossroads, Inc.) April 27, 2016.

Indian Street Commerce Center Traffic Impact Analysis, City of Moreno Valley (Urban Crossroads, Inc.) June 29, 2016.

Phase I Environmental Site Assessment, 17845 Indian Street, Moreno Valley, California (Ardent Environmental Group, Inc.) July 15, 2015.

Final Hydrology Report for Moreno Valley Vogel Industrial [Indian Street Commerce Center Project] (Huitt-Zollars, Inc.) Revised August 15, 2016.

Project Specific Water Quality Management Plan for Moreno Valley Vogel Industrial [Indian Street Commerce Center Project] (Huitt-Zollars, Inc.) Revised August 15, 2016.

Results of Pesticide and Herbicide Sampling, 17845 Indian Street, Moreno Valley, California (Ardent Environmental Group, Inc.) July 13, 2016.

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This may affect your property

Notice of PUBLIC HEARING

Notice is hereby given that a Public Hearing will be held by the Planning Commission of the City of Moreno Valley on the following item(s):

Project: PA16-0002 Plot Plan
P16-003 EIR
Applicant: SRG ACQUISTION, LLC
Owner: VOGEL PROP INC
Representative: Patrick Russell
A.P. No(s): 316-210-019, 316-210-020, 316-210-057, and 316-210-077
Location: West side of Indian Street south of Grove View
Proposal: A Plot Plan (PA16-0002) for the construction of a 446,350 square foot high cube warehouse building located on the west side of Indian Street south of Grove View Road on property measuring approximately 19.64 acres in area. The project site is vacant land in the Moreno Valley Industrial Area Specific Plan 208. Approval of this project will require the certification of an Environmental Impact Report.

Council District: 4

The project has been evaluated against criteria set forth in the California Environmental Quality Act (CEQA) Guidelines. An Environmental Impact Report (P16-003), Statement of Overriding Considerations and Mitigation Monitoring Program have been prepared for this project (SCH2016031036). A draft document was circulated to the public (including interested parties/responsible agencies) for review from August 25, 2016 to October 10, 2016. The final document will be available online at www.moval.org.

A public hearing before the Planning Commission has been scheduled for the proposed project. Any person interested in commenting on the proposal and recommended environmental determination may speak at the hearing or provide written testimony at or prior to the hearing. The project application, supporting plans and environmental documents may be inspected at the Community Development Department at 14177 Frederick Street, Moreno Valley, California during normal business hours (7:30 a.m. to 5:30 p.m., Monday through Thursday and 7:30 a.m. to 4:30 p.m., Friday), or you may telephone (951) 413-3206 for further information.

The Planning Commission, at the Hearing or during deliberations, could approve changes or alternatives to the proposal. If you challenge any of these items in court, you may be limited to raising only those items you or someone else raised at the Public Hearing described in this notice, or in written correspondence delivered to the Planning Commission at, or prior to, the Public Hearing.



LOCATION N

PLANNING COMMISSION HEARING

City Council Chamber, City Hall
14177 Frederick Street
Moreno Valley, Calif. 92553

DATE AND TIME: December 15, 2016 at 7PM
CONTACT PLANNER: Julia Descoteaux
PHONE: (951) 413-3209

Upon request and in compliance with the Americans with Disabilities Ac of 1990, any person with a disability who requires a modification o accommodation in order to participate in a meeting should direct suc request to Guy Pegan, ADA Coordinator, at 951.413.3120 at least 4 hours before the meeting. The 48-hour notification will enable the City t make reasonable arrangements to ensure accessibility to this meeting.

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PLANNING COMMISSION

STAFF REPORT

Meeting Date: December 15, 2016

PEN16-0020 (PA16-0002) PLOT PLAN

Case:	PEN16-0020 (PA16-0002) Plot Plan
Applicant:	SRG Acquisition, LLC
Owner:	Vogel Properties, LLC
Representative:	Patrick Russell, SRG Acquisition, LLC
Location:	SWC Indian Street & Grove View Road
Case Planner:	Julia Descoteaux
Council District:	4

SUMMARY

The project consists of a Plot Plan for a 446,350 square foot warehouse building on property measuring approximately 19.64 acres in area. An Environmental Impact Report (EIR) was prepared for the project based on the conclusion of the Initial Study. The site is located within the Moreno Valley Industrial Area Specific Plan 208. There are no outstanding issues associated with this project.

PROJECT DESCRIPTION

Project

PEN16-0020 (PA16-0002) Plot Plan

The applicant, SRG Acquisition, LLC, is requesting approval of Plot Plan PEN16-0020 (PA16-0002) to construct a 446,350 square foot warehouse distribution/manufacturing facility. The proposed project site includes 19.64 acres located on the southwest corner of Indian Street and Grove View Road. The project includes two alternative uses which

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include warehouse manufacturing or warehouse distribution depending on the tenant. The overall footprint of the building and site plan is the same for each use except for the vehicle parking.

The proposed manufacturing design includes approximately 337,080 square feet of warehouse space, 89,270 square feet dedicated to manufacturing uses, 10,000 square feet of office space and 10,000 square feet of warehouse storage mezzanine space above the office space. The office space will be located at the southeast corner of the building. The warehouse distribution design includes 426,350 square feet of warehouse with the remaining 20,000 office space.

Shipping and receiving areas will be located on the south side of the building for both alternatives. With Alternative 1 a maximum of 53 dock loading bays are planned for loading, unloading, and short term parking for truck trailers. With Alternative 2 there are 35 dock loading bays provided. The loading dock and truck areas will include tubular steel fencing located on the west and south property lines to secure the area with screen walls and gates adjacent to the southern driveway to screen the truck court from Indian Street.

The proposed warehouse facility is a permitted use within the Industrial (I) zone of the Moreno Valley Industrial Area Specific Plan 208. The Specific Plan is intended to provide locations for medium to heavy industrial and warehouse land uses. The proposed warehouse building is being built as a shell building for single or multiple tenant occupancy with no tenant identified.

Site

The project site is located in the southern portion of the City within the southerly area of the Specific Plan on the south side of Indian Street at Grove View Road. The site is rectangular in shape and relatively flat. The proposed grading will not create any manufactured slopes except around the proposed water quality detention basins. The site is predominantly vacant, undeveloped and is devoid of notable topographic features.

Surrounding Area

All surrounding land uses to the north, south, east and west are identified as Industrial and are also in the Moreno Valley Industrial Area Specific Plan 208. Properties to the north include vehicle storage yards and several newly constructed warehouse facilities further north. Properties to the south include an industrial distribution facility and vacant land within the City of Perris boundaries further south. Properties to the east include the Waste Management Transfer Station facility and vacant land. Property to the west includes vacant land and the March Air Reserve Base west of Heacock Street. Due to the project's proximity to the March Air Reserve Base, the project was presented to the County of Riverside Airport Land Use Commission on April 14, 2016, and was found to be conditionally consistent with the 2014 Riverside County Airport Land Use Plan

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subject to conditions of approval. These conditions of approval have been incorporated into the City's Conditions of Approval.

Access/Parking

The project will be accessed from two driveways onto existing Indian Street along the site's easterly boundary. The northerly driveway, Driveway 1, is primarily for passenger cars while the southerly driveway, Driveway 2, is designed for the ingress and egress of trucks. Both driveways will allow left-and-right turn movements.

The project is conditioned to provide site-adjacent roadway and intersection improvements along the project frontage on Indian Street from the northern Project boundary to the southern Project boundary per City Standards.

For manufacturing, the required parking is 323 stalls. The project provides 326 automobile parking spaces in which 318 will be standard parking spaces and 8 will be ADA spaces. Approximately 154 spaces will be located on the southwestern side and 179 spaces on the east parking area. Within the truck loading area, 35 truck trailer parking spaces will be provided. For the warehouse design, 207 stalls are required with 218 provided and 55 trailer stalls. All auto parking areas will be designed consistent with City parking standards including landscape planters and lighting. Designated spaces for low emitting fuel efficient vehicles and van pool spaces will be provided per the California Building Standards based on 8% of the car spaces provided. Bicycle parking will also be provided per the City's Municipal Code requirements.

Design/Landscaping

The architectural design of the building is a concrete tilt-up design up to 47 feet in height with medium blue reflective glazing (glass). Colors of the building will include earth tone accent colors with vertical and horizontal features to break up the massing of the building. Articulated building elements including parapets, metal canopies and clear anodized mullions will be used as decorative features. Roof top equipment will be screened from public view.

A screen wall and gate will be located along the eastern truck court area to reduce the visual impacts of the truck parking and loading areas from Indian Street. The wall will be designed to complement the building using design features and colors.

Landscaping will be designed per the Municipal Code Landscape Requirements section 9.17 with enhanced planting schemes at each of the driveways. The landscaping design requires a drought tolerant palette to reduce water usage meeting the City's requirements and Eastern Municipal Water District's water usage/budget requirements.

REVIEW PROCESS

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The applicant submitted the project on January 11, 2016. The project was reviewed by the Project Review Staff Committee on February 9, 2016. Based on comments from staff, minor revisions were requested on the site plan and preliminary drainage study. All comments have been addressed.

ENVIRONMENTAL

Initial Study/Notice of Preparation

An Initial Study was prepared for the project after all discretionary applications were deemed complete. The Initial Study indicated that this EIR should focus on seven (7) environmental subject areas including Air Quality, Biological Resources, Cultural Resources, Global Climate Change and Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise and Transportation/Traffic. Based on the Initial Study, an Environmental Impact Report (EIR) was determined to be required. A Notice of Preparation for the EIR was prepared with the public comment period beginning on March 14, 2016 and ending on April 12, 2016 with a Scoping Meeting held on March 30, 2016.

Draft Environmental Impact Report

The draft environmental documents were prepared by an outside environmental consultant, Applied Planning, Inc., and submitted to the City for review.

A peer consultant, First Carbon Solutions, was hired under contract to the City to review Applied Planning, Inc.'s draft environmental documents for compliance with the California Environmental Quality Act (CEQA) Guidelines. In addition, staff completed an independent review of all environmental documents to ensure that the documents reflect the independent judgment and analysis of the City as the CEQA Lead Agency. Upon completion of the Draft EIR, the document was circulated for a 45-day public review period, starting on August 25, 2016 and ending on October 10, 2016. The Draft EIR was sent to all required State and local agencies and interested parties. Ten comment letters were received during the 45-day review period. Some of the comment letters discussed concern for potential impacts to air quality, traffic related impacts and the increase in mitigation measures or alterations of the project. Several of the comment letters simply stated awareness of the project but provided no specific comments. As required by CEQA, all comments have been addressed and responded to, with written response to comments provided in the Final EIR.

Significant and Unavoidable Impacts

The analysis presented in the EIR indicates that the proposed project will have potentially significant impacts as a direct result of the proposed project in areas of Air Quality, Biological Resources, Cultural Resources, Global Climate Change and Greenhouse Gas Emissions, Hazards and Hazardous Materials, and Transportation/Traffic. The EIR includes proposed mitigation measures to reduce or eliminate potentially significant impacts. Even with proposed mitigation, a number of

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potential impacts cannot be reduced to a less than significant level. As specifically identified in section 4.0 of the EIR document, impacts identified to be significant and unavoidable include impacts to air quality, greenhouse gas emissions, and traffic/transportation.

In cases where all impacts cannot be reduced to less than significant levels, CEQA allows a decision making body to consider adoption of a Statement of Overriding Considerations and Findings (SOC). CEQA requires the decision making agency to balance the economic, legal, social, technological or other benefits of a proposed project against its unavoidable environmental impacts when determining whether to approve the proposed project. This would include project benefits such as the creation of jobs or other desired beneficial project features versus the project impacts that cannot be feasibly mitigated to less than significant levels. If the decision making body determines that the benefits of a proposed project outweigh the unavoidable adverse environmental effects, it may adopt a SOC and approve the project. The SOC prepared for this project provides specific documentation of the economic benefits this project would provide including annual taxes, job creation and roadway infrastructure.

Some benefits specifically identified include, the project with an estimated construction cost of $21.5 million, would support 50 – 60 direct construction jobs over a two year construction phase. Over the twenty year period evaluated, the Project is projected to generate $772.2 million – $3.7 billion in new direct spending through construction and operations. This influx of funds will have positive economic and fiscal impacts on the City of Moreno Valley in the form of net fiscal revenue, job creation, household earnings, and economic output. The net fiscal revenue for the City is estimated to increase by an annual average of $160,000 – $260,000 over 20 years, with a cumulative total of $3.2 – $5.2 million. This net fiscal revenue is the result of roughly $5.9 – $8.1 million in new tax revenue generated by the Project offset by $2.7 – $2.9 million in General Fund expenditures. Project operations are estimated to create and sustain 500 – 540 new jobs specific to the City.

Mitigation Measures

The Final EIR recommends 18 mitigation measures to reduce project specific and cumulative impacts related to Air Quality, Biological Resources, Cultural Resources, Global Climate Change and Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality and Transportation/Traffic. Compliance with these mitigation measures will be accomplished through administrative controls over project planning and implementation through the Mitigation Monitoring Program prepared for the project. Monitoring would be accomplished under Reporting Procedures through verification and certification by City staff.

Approval and Certification

The Planning Commission will take public testimony on the proposed project and Final EIR. Before action on the proposed project, the Planning Commission must review the final environmental document and either certifies or reject the Final EIR and project

Mitigation Monitoring Program. Based on the information provided, staff recommends that the Planning Commission certify the Environmental Impact Report, adopt the Statement of Overriding Considerations, approve the Mitigation Monitoring Program and approve the Plot Plan for the construction of the warehouse facility.

NOTIFICATION

Public notice was sent on December 1, 2016 to all property owners of record within 300' of the project site. The public hearing notice for the project was also posted on the project site on December 1, 2016 and published in the Press Enterprise December 2, 2016. As of the date of report preparation, staff had received no public inquiries in response to the noticing for this project.

REVIEW AGENCY COMMENTS

Staff received the following responses to the Project Review Staff Committee transmittal, which was sent to all potentially affected reviewing agencies.

Agency	Response Date	Comments
Riverside County Flood Control	February 10, 2016	Project is located within the limits of the District's Perris Valley Area Drainage Plan which drainage fees have been adopted. Contact RCFC for encroachment permit for any activities occurring within the District right of way.
ALUC	May 23, 2016 November 10, 2016	Proposal consistent with the 2014 March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, subject to conditions. Building height modification approved with conditions.
Eastern Municipal Water District	February 24, 2016	Contact EMWD regarding water services.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission APPROVE Resolution No. 2016-24 and 2016-25, and thereby:

Attachment: PC Staff Report 12-15-16 (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING COMMISSION'S

1. **CERTIFY** that Final Environmental Impact Report (EIR, Attachment 2) PEN16-0019 (P16-003) for the Indian Street Commerce Center on file with the Community Development Department, has been completed in compliance with the California Environmental Quality Act, the Planning Commission reviewed and considered the information contained in the Final EIR, and the Final EIR reflects the City's independent judgment and analysis as provided for in Planning Commission Resolution No. 2016-24; and

2. **ADOPT** the Findings and Statement of Overriding Considerations regarding the Final EIR for the Indian Street Commerce Center, attached hereto as Exhibit A to Resolution 2016-24; and

3. **APPROVE** the Mitigation Monitoring Program for the Final EIR for the proposed project, attached hereto as Exhibit B to Resolution 2016-24; and

4. **APPROVE** PEN16-0020 (PA16-0002) Plot Plan subject to the attached Conditions of Approval included as Exhibit A to Resolution 2016-25.

Prepared by:
Julia Descoteaux
Associate Planner

Approved by:
Allen Brock
Community Development Director

ATTACHMENTS

1. Hearing Notice
2. EIR Resolution 2016-24
3. Exhibit A to Resolution 2016-24 SOC + Econ
4. Exhibit B to Resolution 2016-24 Mitigation Monotoring Plan
5. Project Resolution 2016-25
6. Exhibit A to Resolution 2016-25 PP Final COA's
7. Project Plans_F
8. Color Elevations
9. Final EIR Nov 2016
10. Draft EIR - August 2016
11. Appendix A - IS, NOP, NOP Responses
12. Appendix B - Traffic Impact Analysis
13. Appendix C - Air Quality Analysis
14. Appendix D - GHG-GCC Analysis
15. Appendix E - Noise Impact Analysis
16. Appendix F - Phase I ESA
17. Appendix G - Hydrology Study
18. Appendix H - Biological Resources
19. Appendix I - Airport Compatability Documentation

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CITY OF MORENO VALLEY PLANNING COMMISSION
REGULAR MEETING
CITY HALL COUNCIL CHAMBER – 14177 FREDERICK STREET

Thursday, December 15, 2016 at 7:00 PM

CALL TO ORDER

CHAIR LOWELL – Good evening ladies and gentlemen. Welcome to the Special Planning Commission Meeting. Today is Thursday, December 15, 2016. The time is just after 7:00. It looks like it is 7:08 PM. I would like to call the meeting to order. Ms. Tadeo, could we have the roll call please?

ROLL CALL

Commissioners Present:
Commissioner Ramirez
Commissioner Baker
Commissioner Sims
Commissioner Gonzalez
Commissioner Nickel
Vice Chair Barnes
Chair Lowell
Commissioner Korzec - Excused Absent

Staff Present:
Rick Sandzimier, Planning Official
Paul Early, Assistant City Attorney
Erica Tadeo, Administrative Specialist
Jessica Descoteaux, Associate Planner
Adria Reinertson, Fire Marshal
Chris Ormsby, Senior Planner
Eric Lewis, City Traffic Engineer

Speakers:
Rafael Brugueras
Damon Allen

Attachment: PC Hearing Minutes 12-15-2016 (PEN16-0020) (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

2. Case: PEN16-0020 (PA16-0002) Plot Plan

Applicant: SRG Acquisition, LLC

Owner: Vogel Properties, LLC

Representative: Patrick Russell, SRG Acquisition, LLC

Location: SWC Indian Street & Grove View Road

Case Planner: Julia Descoteaux

Council District: 4

Proposal: PEN16-0020 (PA16-0002) – Plot Plan

STAFF RECOMMENDATION

Staff recommends that the Planning Commission **APPROVE** Resolution No. 2016-24 and 2016-25, and thereby:

1. **CERTIFY** that Final Environmental Impact Report (EIR, Attachment 2) PEN16-0019 (P16-003) for the Indian Street Commerce Center on file with the Community Development Department has been completed in compliance with the California Environmental Quality Act, the Planning Commission reviewed and considered the information contained in the Final EIR, and the Final EIR reflects the City's independent judgment and analysis as provided for in Planning Commission Resolution No. 2016-24; and

2. **ADOPT** the Findings and Statement of Overriding Considerations regarding the Final EIR for the Indian Street Commerce Center, attached hereto as Exhibit A to Resolution 2016-24; and

3. **APPROVE** the Mitigation Monitoring Program for the Final EIR for the proposed project, attached hereto as Exhibit B to Resolution 2016-24; and

4. **APPROVE** PEN16-0020 (PA16-0002) Plot Plan subject to the attached Conditions of Approval included as Exhibit A to Resolution 2016-25.

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ASSOCIATE PLANNER JULIA DESCOTEAUX – Good evening again. The Item before you today is a Plot Plan for a 446,350 square foot warehouse building to be located on 19.64 acres in the Moreno Valley Industrial Area Specific Plan 208. The project provides for two alternatives, one for manufacturing and one for warehouse distribution, with differences being the number of parking required and the number of loading bay doors. The footprint of the building, the site access, landscaping, and water quality features will be the same for both alternatives. All the shipping and receiving areas will be located on the south side of the building with the opportunity for truck queueing along the north and west sides of the building. The proposed facility is a permitted use within the Industrial Area in the Zone in the Specific Plan. The plan is intended to provide locations for medium to heavy industrial and warehouse land uses. The proposed warehouse building is being built as a shell building for a single or multiple tenant occupancy with no tenant currently identified. The surrounding properties are also identified as industrial within the Specific Plan. Properties to the north include vehicle storage yards and operating warehouse distribution facilities. To the south, is an existing warehouse and, further south, is the City of Perris. There is a Waste Management Transfer Station to the northeast of the site and vacant land and existing facilities both to the east, north, and west. The project will take access from Indian Street at two locations with one driveway to the north being for auto vehicles, and parking is provided on the site per the City's Code Requirements with the parking areas designed with the required number of parking spaces and landscaping depending on the type of use being warehouse and manufacturing. The design of the building includes a concrete tilt-up building approximately 47 feet high with the use of color, reflective glazing, canopies, and mullions as decorative features. Landscaping and water quality areas will be designed and installed per the City's Municipal Code using water saving and drought tolerant design. The initial study was prepared for the project and determined that an Environmental Impact, EIR, was the appropriate environmental document for the project and it should focus on seven areas including air quality, biological resources, cultural resources, global climate change and greenhouse gas emissions, hazard and hazardous materials, hydrology and water, noise, transportation, and traffic. The EIR was prepared by Applied Planning with a Peer Consultation by First Carbon Solutions. The draft was circulated in August with the review period ending on October 10, 2016. Ten comment letters were received. All the comment letters were reviewed and responded to in the Final EIR, which was sent out on December 2, 2016 in advance of this meeting. The analysis presented in the EIR indicated that there are areas where the potential impact was significant and Mitigation Measures were implemented to reduce the impact to less than significant. Those that could not be reduced to a less than significant impact are listed in Section 4.0 of the Final EIR as significant and unavoidable and include air quality, greenhouse gas, and also traffic. The Planning Commission is asked to consider the Findings of Facts and Statement of Overriding Considerations for the project. CEQA requires that the decision-making agency balance the economic, legal, social, technological, and other

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benefits of a proposed project against its unavoidable environmental impacts. This would include project benefits such as the creation of jobs and other desired beneficial features versus the impacts of the project. Some benefits that were specifically identified included in your report are construction jobs, new jobs when the facility opens, the construction of the infrastructure around the facility. Mitigation Measures are also included, and they will be monitored under the reporting process. Public notice was sent to all property owners within 300 feet, posted on the site, and placed in the Press Enterprise. It was also sent to all the commenter's of the Draft EIR, and they were provided the Final EIR with that notification. To date, I have not received any phone calls or questions regarding the project. We have provided you a Revised Condition of Approval for a couple typographical errors. With respect to Condition of Approval P8, the square footage is 446,350, and the ALUC-10, the height is 48 feet. Staff recommends that the Planning Commission **APPROVE** Resolution No. 2016-24 and 2016-25 **CERTIFYING** the Environmental Impact Report, **ADOPTING** the Findings and Statement of Overriding Considerations, **APPROVING** the Mitigation Monitoring Program, and **APPROVING** the project with the attached Conditions of Approval. Staff is available for any questions. The Environmental consultant, Ross Geller from Applied Planning, is here to answer any questions related to the Environmental Impact Report. And, with him, is the Traffic Consultant, and also the Applicant from Sares-Regis is here as well. We also received one letter from, one of the comment letters from Johnson and Sedlack, stating that they were withdrawing their comments. This concludes Staff's presentation, and at this time we can answer questions for you. Thank you.

CHAIR LOWELL – Thank you very much. Any questions for Staff? I don't see any hands going up. Okay, I'd like to invite the Applicant up please.

APPLICANT PATRICK RUSSELL – Good evening. My name is Patrick Russell. I'm with Sares-Regis Group. I think Julia has done a good job of describing the project, and I just want to thank Staff, as well as the Commission for considering our project approval this evening. I am available to answer any questions that you would have. I would just like to add that the project is going to be a model for sustainability. It will be built to LEED Silver Certified Award levels. We're also including a solar ray for renewable energy at the building roof. There are many other features that have to do with water quality, water conservation, energy conservation, and green design that will be included in the project. So this should be a great project. It will meet the demands for the market, as well as be very environmentally conscious. So I'd be happy to answer any further questions that you would have.

CHAIR LOWELL – Do you have a perspective tenant in mind? I know we're talking some manufacturing, some distribution. That's what the summary said.

APPLICANT PATRICK RUSSELL – This is a spec project. We don't have a specific tenant in mind, but it's designed to accommodate a wide range of users

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that could be warehousing, corporate headquarters, manufacturing, or E-commerce. E-commerce has been growing at a rate of more than 15% annually, and we're seeing more and more of that business so that's a good possibility that we'd have that type of user.

CHAIR LOWELL – Is the building going to be built in hopes of a future tenant, or are you going to hold off construction until you have a tenant that is signed on the line to build for them?

APPLICANT PATRICK RUSSELL – Once we receive our approvals from this, the entitlement approvals, as well as the building department approvals, we will proceed with construction probably around the first of April.

CHAIR LOWELL – Awesome, and I'm excited. I like to see new businesses come to town, and I like to see new employment opportunities for our residents locally. It's a breath of fresh air to see people willing to invest in our City, so I appreciate it. Any other questions for the Applicant?

COMMISSIONER GONZALEZ – I do.

CHAIR LOWELL – Commissioner Gonzalez.

COMMISSIONER GONZALEZ – Regarding sustainability and your first comment, how would you say this building compares to say some of the older buildings that were built back in let's say the 2000s? You don't have to go into detail but just something, a general statement, what's the big difference, kind of the meat of what's changed, what's evolved from the standard warehouse building in, let's say 2005/2006 and, you know, 10 years now.

APPLICANT PATRICK RUSSELL – There are many different facets. We can talk about electrical energy consumption how now we've gone to low energy fixtures, LED lighting. The insulation requirements are much more rigid these days. The demands for energy are much lower because of the types of glass that we use, shading on the windows. It just goes on and on. Cool roofs in all the conditioned areas. Furthermore, rather than just consuming energy, we are also generating energy so we've come a long ways. It doesn't really stop at the building either. If we really look at the site and what's happening there is that, back in the early 2000s, the storm water would just ran straight into the storm drain. It could be carrying constituents or hazardous, those types of things. Now, we have the best management practices where we're filtering the water and we're also restoring our Aquifers through the percolation basins that we provide. It goes onto drought tolerant landscape and all the types of irrigation that have evolved over time to really reduce water consumption, so I look at it as really a wholistic approach to the project in the way that they are designed. It really started with the whole LEED movement. Now, we have Cal-Green, which is also modeling a lot of those same things so, much of what is required today, is

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not even voluntary. The LEED Certification still is voluntary. Things like the solar generation are voluntary, but there are many Tidal 24 and Cal-Green requirements that are very good for energy conservation and sustainability.

COMMISSIONER GONZALEZ – Thank you.

CHAIR LOWELL – Any other questions? I didn't see it in the report, but are you guys planning on utilizing electric forklifts and electric, what do you call them, pigs or whatever they use for shuttling containers to and from the loading docks?

APPLICANT PATRICK RUSSELL – Yard goats.

CHAIR LOWELL – Yard goats. There we go.

APPLICANT PATRICK RUSSELL – What we have agreed to is that we will have non-diesel equipment. We primarily see the electric forklifts in these types of facilities. Sometime they use propane and other clean fuels, but the diesel is being discouraged.

CHAIR LOWELL – We have a couple of warehouses in town that utilize electric equipment, and it's kind of refreshing when you walk through the warehouses and see these zero emission vehicles and they are being recharged through solar, which it's just nice. It takes a lot of the pollution concerns away from a lot of the residents. With the solar, are you planning on operating the facility on 100% solar or are you just putting X amount of solar panels on the roof to produce a certain amount and the rest is just going to be purchased?

APPLICANT PATRICK RUSSELL – Correct. The solar is primarily, the load that will be covered will primarily be the office portion of the site on the project, but any further needs within the warehouse would be through common means.

CHAIR LOWELL – Okay, Thank you very much

APPLICANT PATRICK RUSSELL – But still we're looking at using LED type of lighting and again low-energy consuming fixtures in the warehouse plus a lot of ambient natural light with the sky-lighting, so the energy demands have come a long ways in terms of tapering that off.

CHAIR LOWELL – I'm assuming this isn't your first commercial building?

APPLICANT PATRICK RUSSELL – No.

CHAIR LOWELL – Do you happen to have a list of a couple of key tenants that you have in some of your other facilities just so we can get an idea of who you're trying to attract?

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APPLICANT PATRICK RUSSELL – Sure. Across the street from us, we built the Deckers Facility, and we have just recently finished the QVC facility in Ontario. There is Pier One in Ontario as well so these are very common large quality users that we've been able to attract to our buildings.

CHAIR LOWELL – Well, I appreciate it. I was just trying to get an idea of who you're tenants were so Thank you very much. Any other questions for the Applicant before I move on? I don't see any hands going up. Thank you very much. I appreciate it.

APPLICANT PATRICK RUSSELL – Thank you.

PLANNING OFFICIAL RICK SANDZIMIER – Mr. Chairman.

CHAIR LOWELL – Yes, Mr. Sandzimier.

PLANNING OFFICIAL RICK SANDZIMIER – May I provide a little bit of a Staff clarification. Mr. Russell was very clear that the solar installation is a voluntary installation. It is not a requirement of the project. The project did get reviewed by the Airport Land Use Commission, and the Airport Land Use Commission did have concerns about solar installation that if it could disrupt anything with the aircraft at the base. So it's not that it's not allowed, but we assured the Airport Land Use Commission that the City itself would not be requiring the Applicant to put the solar on the building, so we are not requiring them to put that on. It is voluntary, and when it comes in for building permits, it will most likely have to go through another Airport Land Use Commission Review. They may have to do a Glare Study, and they may have to take it back. They can do that as long as they satisfy the Airport Land Use Commission. There is actually a specific condition in your Conditions of Approval this evening. It's on page 253 of the packet. It lists all the various items that the Airport Land Use Commission.

CHAIR LOWELL – Do you happen to have the Condition Letter Number because I don't have page numbers on mine.

PLANNING OFFICIAL RICK SANDZIMIER – The Condition Number is Airport Land Use Commission Condition 2. It starts at the bottom of page 252 and then it goes on to page 253 or page 12 of the report. It says that, any use which could cause some light to be reflected towards an aircraft engaged is an issue, so basically we want to look at anything that has the potential of reflecting upwards so that can be done. But, like I said, it would require subsequent review by the Airport Land Use Commission, and we can take care of that during the Building Permit Issuance Review.

CHAIR LOWELL – Vice Chair Barnes.

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VICE CHAIR BARNES – While we're on the subject of ALUC. ALUC Condition 4: The attached notice shall be given to all perspective purchasers of the property. What notice will that be? Did I miss something?

ASSOCIATE PLANNER JULIA DESCOTEAUX – I apologize. I thought we included that at the end of Conditions of Approval so I don't have that with me.

VICE CHAIR BARNES – What is it a notice of?

ASSOCIATE PLANNER JULIA DESCOTEAUX – Let me look through here just a moment, okay?

VICE CHAIR BARNES – Okay. We can move on. I was just curious what we were getting at.

PLANNING OFFICIAL RICK SANDZIMIER – What I can assure the Commission is, if you want to take a break, we can find that document. We should have it in our file but, in any event, we will attach that document to these Conditions of Approval since it is referenced.

VICE CHAIR BARNES – Okay.

PLANNING OFFICIAL RICK SANDZIMIER – So that would be…..

VICE CHAIR BARNES – The condition is correct. There is a notice that something.

ASSOCIATE PLANNER JULIA DESCOTEAUX – Yes there is.

VICE CHAIR BARNES – It's limited inadvertent.

ASSOCIATE PLANNER JULIA DESCOTEAUX – There is a notice.

VICE CHAIR BARNES – Thank you.

CHAIR LOWELL – You're good?

VICE CHAIR BARNES – Yeah, yeah. I was just curious about that.

CHAIR LOWELL – Any other questions before we move onto Public Comments?

COMMISSIONER BAKER – I've got one here on PE T8 and T9 on the, I guess it has to do with the transportation deal. What I'm wondering there is what our arrangement is with City of Perris where they come out with a $32,547 assessment. And, on Indian and Grove right there at the intersection, I know

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that's been improved. The City of Moreno Valley is only getting $4885. I know we have some kind of arrangement with the City of Perris down there even though that's in our City limits, right?

ASSOCIATE PLANNER JULIA DESCOTEAUX – Yes. I will refer to the Traffic Engineer for that.

COMMISSIONER BAKER – That's for Traffic Engineering, right?

CITY TRAFFIC ENGINEER ERIC LEWIS – Yes. So the payments shown are for Fair Share Contribution, their contribution to traffic at that intersection and to meet their Mitigation requirements.

COMMISSIONER BAKER – So does that happen on every warehouse that goes in in that area in the southern part of town? Perris gets some help? And I understand that because most of the traffic probably goes south toward their direction. Is that correct?

CITY TRAFFIC ENGINEER ERIC LEWIS – If the project will impact one of their intersections or multiple intersections, then we require the development to make a Fair Share Contribution to them.

COMMISSIONER BAKER – And how is that determined? On the square footage or the size of the intersection or?

CITY TRAFFIC ENGINEER ERIC LEWIS – Well it's based on the amount of new traffic that is introduced at the intersection so there's a formula.

COMMISSIONER BAKER – That's not on a traffic count then, right?

CITY TRAFFIC ENGINEER ERIC LEWIS – Correct.

COMMISSIONER BAKER – Okay, thank you so much.

CHAIR LOWELL – Any other questions? No?

ASSOCIATE PLANNER JULIA DESCOTEAUX – We have the notice. It is in….it talks about that the property is in the vicinity of an airport within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances and inconveniences associated with being near an airport. That's the notice.

VICE CHAIR BARNES – I do have a question, another question.

CHAIR LOWELL – Can we push that back until after Public Comments?

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VICE CHAIR BARNES – I don't know. Do we ask the questions now?

CHAIR LOWELL – No. I think we should ask them after the Public Comments.

VICE CHAIR BARNES – Alright.

CHAIR LOWELL – Okay, I'd like to open up the Public Comments. We have two citizens waiting to speak. We have Mr. Damon Allen followed by Mr. Rafael Brugueras.

SPEAKER DAMON ALLEN – My name is Damon Allen. I am a 13 year resident of Moreno Valley. I have never spoken before the Planning Commission before, but I want to come up here again when you have Downtown Moreno Valley plans so we can get that on the road. I am with Southern California Environmental Justice Alliance. I would like to thank you for the opportunity to speak before you today. Since there is a time limit, I will not be able to get through the entirety of our comments, so I refer you to the comment letter to reflect the full scope of our comments.

CHAIR LOWELL – Could you pull the microphone a little closer.

SPEAKER DAMON ALLEN – Okay, how is that?

CHAIR LOWELL – Perfect.

SPEAKER DAMON ALLEN – Okay. We believe the EIR is flawed and should be redrafted and recirculated. Firstly, regarding Section 4272 of the EIR, the Air Quality Impact Statement. The EIR gives a sample construction schedule. The construction schedule presents the project in phases. However, phased construction is not required of the project. The EIR does not present any analysis of impact or particular Mitigation Measures for potential overlap of construction phases. There is no statement that the construction phases will not occur concurrently. Also, there is no requirement that the project be completed over a certain number of days given. Construction may occur faster as well, which results in a significantly greater daily impact. The EIR states, "Should construction occur any time after the dates presented here incremental in aggregate construction source emissions would likely decrease since emission factors for construction equipment would progressively decrease in the future." This statement is misleading as it assumes the best-case scenario. Contrary of CEQA's meaningful disclosure requirement, there is no indication of or requirement for the projects construction to (let me change pages here) utilize technology that may or may not exist to reduce emissions. The EIR continues to state "This is due to the natural turnover of the older fleet vehicles and replacement with more efficient equipment to enhance emission control and implementation of more stringent regulations, which act to reduce construction source emissions." Will the EIR be recirculated and analyzed if the project goes

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beyond construction dates given? Will it be analyzed against the more stringent regulations that do not currently exist? The statement is misleading and presents a scenario that is circumstantial and uncertain. Then, we have a comment also on the greenhouse gas emissions impact. The EIR states that the project emissions of GHG's are significant and unavoidable after mitigation. No Mitigation Measures are offered other than a reference to the projects design features and operational programs that would act to generally reduce the projects GHG emissions for area sources, energy sources, and other onsite emission sources, which combine and account for approximately 11% of the project's total GHG emissions. No further Mitigation Measures are offered. This is inadequate and the EIR must offer some Mitigation Measures beyond potential design features. Further, the EIR states that the project conflicts with the Scoping Plan, as well as Moreno Valley's Energy Efficient and Climate Action Strategy. There is no Mitigation Measure disclosed here either. The details of how the GHG emissions conflict with both documents is not discussed. This does not meet CEQA's meaningful disclosure requirements. Again, I thank you for your time.

CHAIR LOWELL – Thank you very much. Mr. Rafael Brugueras.

SPEAKER RAFAEL BRUGUERAS – Good evening again. I'm not sure if that should be answered first before I speak? I mean, I'm not saying that he's right or wrong, but I know when the Staff brings their Report to you they make sure what they are doing is correct. And that's been proven time after time so I learned something back there but, anyway, good evening once again Chair, Commissioners, Staff, Residents, and Guests. I'm glad to hear the Applicant speak first because he gave us all the positive notes of how to build a building energy efficient, water, landscaping. He gave it all to us. They are going to use their own energy and their own water without disturbing the City's, and that's a good thing and those are the projects that are coming to pass now. The old way is not going to happen anymore. We are now doing things differently, so I'm glad to hear that, but I just want to talk about the benefits of what can come to the City. It talks about it's going to cost 21 million dollars, and it's going to create 50 or 60 construction people for the next two years. And, after that, it's going to project 772 million dollars up to 3.7 billion dollars in new direct spending through construction and operations. This flood of funds has a positive economic and fiscal impact on the City of Moreno Valley in the form of fiscal revenue, job creation, household earnings, and economical output. Then, it talks about another $160,000 to $260,000 over 20 years. When you look at $160,000 or $260,000 over 20 years, when we add everything that we have done in the last several years, that helps our general fund. Okay, in then in here, it talks about billions of dollars or millions of dollars in revenue. See that's what happens when we have projects that come to our City and they produce in 20 years when they are built well as they are going to do for us. I'm just hoping that whatever this gentleman said can be corrected because that is important what he said. But I know that our Staff works very, very hard to make sure that these concerns are taken care of before they bring them to you and I guess we'll hear the

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explanation. But, anyway, I support what this project is going to do for Moreno Valley on that corner. Thank you.

CHAIR LOWELL – Thank you very much. Any other speakers wishing to speak before I close Public Comments? Going once, going twice. We have one hand up, the Applicant. I was just going to call you up to ask you if you wanted to respond. Let me close Public Comments. Any other Public Speakers wishing to speak? Anybody else wanting to speak? Going once, going twice. Public Comments are now closed. I was going to invite you back up to rebut anything you heard.

APPLICANT PATRICK RUSSELL – Okay, Thank you very much. I just wanted to respond to the comment that there really wasn't any mitigation proposed with respect to air quality and emissions control, and actually we spent a lot of time putting together a program where we have many mitigating factors, and I'd just like to name a few. First of all, for the construction, we will be using Tier 4 equipment, which is the heavy equipment, which is used for grading and so forth. Tier 4 equipment is State of the Art Emissions Control Equipment. They also have the best available control technology on that for monitoring and controlling emissions so that is very positive. Also, we have agreed that there will be no portable diesel generators used during the construction of the project. We also are providing limitations on idling for trucks and signage to three minutes or less. We are providing and encouraging the use of carpooling in van pools. We are providing special parking locations for those uses to encourage the ride sharing to get to work. We are also providing electrical vehicle charging stations to encourage the use of zero emissions automobiles. So we have one DC fast-charge unit, which again is the quick charge. It is a premium type of unit, as well as two level-two EVSE charging units for a total of three. We will also being putting conduits in and infrastructure to expand those electrical vehicle charging units over time as the tenants needs for those grow and to increase the number of zero emission vehicles. As I stated earlier, no diesel-powered forklifts are permitted onsite, and our landscape equipment will use only electric or equipment that is approved by the California Air Quality Board. So, in conclusion, I would just like to say that there are some significant and costly provisions that have been included into this plan that I think really will make a difference with the emissions, and I just wanted to make note of that. Thank you.

CHAIR LOWELL – For clarification, you said no diesel forklifts will be allowed onsite. Is that during operation or is that also during construction?

APPLICANT PATRICK RUSSELL – That would be at all times.

CHAIR LOWELL – So period. There will never be a diesel forklift on the site during construction or anytime?

APPLICANT PATRICK RUSSELL – Correct.

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CHAIR LOWELL – Okay, thank you. Any questions or concerns before I move to discussion and deliberations? Nope, okay, I will open up the floor. Does anybody have any questions? Commissioner Sims.

COMMISSIONER SIMS – I don't have any questions, but I….looking over the paperwork on this, this project is located within Specific Plan 208, which is specifically for this type of use, so I can imagine that the conditions are all consistent with what was outlined in the Specific Plan for this type of development. And, of interest if you had a chance to look at the Fiscal Impact Report, you look at the numbers on that and, if you would indulge me a second, but the net annual revenue, that's net. That's after city expense for police and fire support and such is estimated to be $160,000 to $260,000 a year, so that's net new positive revenue to the City. The sustainable jobs are estimated between 500 and 400 between direct and indirect jobs that the project would influence and 50 to 60 jobs during the construction and that the net new household earnings, I did the math. Over the project, it would be around $40,000 per year on these jobs that will be influenced. Household earnings would be influenced positively by $40,000. I thought it was a pretty rigorous thing. They looked at six sources of revenue through the various taxes that the City would accumulate by this and it just, it's a warehouse in the right spot where warehouses are supposed to be. They got the Mitigation Measures that are consistent with the Specific Plan and the Conditions with the City, so I am very supportive of this project.

CHAIR LOWELL – Vice Chair Barnes.

VICE CHAIR BARNES – I want to second what Commissioner Sims said about the financial analysis. I really appreciated that being included in this Project Report because previously the Overriding Considerations were always somewhat vague. It's nice to see some real numbers that you can measure against the demands of the project, so I appreciate that addition very much. Also, observation on the conditions, which I always have, the conditions are dubitable that this thing gets built by yet the EDD conditions all say encouraged, may utilize, may work, encouraged, may. Why are they even in here if they are not requiring that they do anything? It's just an observation. And then, on a technical question, does the right-of-way for Grove exist west of Indian?

ASSOCIATE PLANNER JULIA DESCOTEAUX – No. I won't exist.

VICE CHAIR BARNES – It does not?

ASSOCIATE PLANNER JULIA DESCOTEAUX – It does not.

VICE CHAIR BARNES – It's not being vacated. It's already gone?

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ASSOCIATE PLANNER JULIA DESCOTEAUX – If it's not already gone, it's in the process of being vacated.

VICE CHAIR BARNES – Okay.

ASSOCIATE PLANNER JULIA DESCOTEAUX – It's not intended for either this project or the project that's approved to the north of it.

VICE CHAIR BARNES – Okay. The reason I was asking is those driveways are very close together and was it considered to make Grove a four-way intersection with a shared driveway with the property to the north?

ASSOCIATE PLANNER JULIA DESCOTEAUX – That was discussed, but the property to the north has already been entitled.

VICE CHAIR BARNES – Oh, okay. Okay, and I think that concludes my questions. Thank you very much.

CHAIR LOWELL – Any other questions? Commissioner Gonzalez.

COMMISSIONER GONZALEZ – I just want to second the comments from my colleagues. This is a great project and a great place and that is what this Specific Plan was intended to do, and hopefully it is a very successful project.

CHAIR LOWELL – I have a question. On the Plot Plan, on the northwest corner of the site, the back corner doesn't look to be fire accessible. We show a fire access road that is 30 feet wide but that hard 90-degree turn doesn't look like it's going to accommodate a fire truck very well.

ASSOCIATE PLANNER JULIA DESCOTEAUX – I'll refer to Fire on that.

FIRE MARSHAL ADRIA REINERTSON – Adria Reinertson, Fire Marshal. Yes, it does appear that there is a 30-foot-wide lane all the way around, but certainly when we get to Building Permit Issuance and Plan Check, we would be setting down our turning radius templates to make sure that our engines and trucks can make that turn.

CHAIR LOWELL – It seems like that should be something that we address now to make sure that the building is in the right spot and the right square footage.

FIRE MARSHAL ADRIA REINERTSON – We generally don't, and we give them the parameters for the lane widths and then we issue conditions that all of those details will be handled during Plan Check.

CHAIR LOWELL – Okay, I guess that just kicks the can down the road for me. I don't have any other major concerns or questions. Anybody else?

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PLANNING OFFICIAL RICK SANDZIMIER – I think you had one more Commissioner, but when you get done I do have some input.

COMMISSIONER NICKEL – Yes I did meet Mr. Russell quite a while ago when he was kind enough to have a public forum about this project. Sadly, there were not a lot of public there. I was there, a representative from Joint Powers was there, and a rep from the Sierra Club, but I know Mr. Russell takes a lot of pride in his buildings so I have good faith in this.

CHAIR LOWELL – Any other questions before I go to a motion? Well personally, I would like to say that the biggest problem I see facing our City is a major lack of employment opportunities. A lot of our youth stay at home. They work at minimum wage jobs, at Burger King, at Jack in the Box, or something that is not becoming up an upstanding citizen that needs a good well-paying long-term job. I welcome this project to the City. This is the right project in the right location. As Commissioner Sims said, it's where warehouses need to be. It's where they should be. We have two different warehouse communities, one on the east side of the town and one on the south side of town. This fits the right spot in the right place at the right time. We need the jobs in the City. We need the revenue, so I welcome you to town. With that, I would like to make a motion.

PLANNING OFFICIAL RICK SANDZIMIER – Mr. Chairman, may I, just for the record. I think this is important because some of the speakers did come up and question the quality of the Environmental Document so I just want, for the record because sometimes projects like this are challenged, I would like the record to reflect that we as your Staff have applied independent judgment, which is a requirement of CEQA. The consultant that was retained for the project was a professional consultant from Applied Planning. The City also secured the services with First Carbon to provide a Peer Review of the Environmental Document. The Environmental Document has been reviewed by both Professional Planners and your Professional Staff here. You already mentioned that the Statement of Overriding Considerations did have detail. We took extra caution to make sure that information was presented in the Staff Report so you did have that information available to you, and the public had that information available to you. We stand behind this project. We agree with what the Commission has found so far with the comments this evening that this is a good project in the right location in the City. I just want to make sure that the record reflects that. With regard to the Conditions of Approval from our Economic Development Department, we take great pride in this City to be business friendly. You've maybe heard the mantra that we operate at the speed of business, but we also have very detailed customer care standards. And the types of conditions that we've put in there with the EDD, the Economic Development Department, we're not going to dictate how a business is run, but we're giving them the opportunity to work with us with the resources that we have available to help the business be successful. So that's why those conditions are a little bit looser. We

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don't want to dictate exactly how they work, but those are there to make sure that the public and the businesses are aware that we do provide those services. And, with that, I'll conclude.

CHAIR LOWELL – Thank you very much. I do agree making the city business friendly is a good thing, and I applaud the Staff's actions and the research and homework you guys have done. With that, I personally would like to make the motion, so I'm going to jump on this one. I would like to recommend that the Planning Commission **APPROVE** Resolution No. 2016-24 and 2016-25 and thereby **CERTIFY** that the Final Environmental Impact Report (EIR, Attachment 2) PEN16-0019 (P16-03 is the other name for it) for the Indian Street Commerce Center on file with the Community Development Department has been completed in compliance with the California Environmental Quality Act. The Planning Commission viewed and considered the information contained in the Final EIR, and the Final EIR reflects the City's independent judgment and analysis as provided for in Planning Commission Resolution 2016-24, and **ADOPT** the Findings and Statements of Overriding Considerations regarding the Final EIR for the Indian Street Commerce Center attached hereto as Exhibit A to Resolution 2016-24, and **APPROVE** the Mitigation Monitoring Program for the Final EIR for the proposed project attached hereto as Exhibit B to Resolution 2016-24, and finally **APPROVE** PEN16-0020 (formerly PA16-0002) Plot Plan subject to the attached Condition of Approval included as Exhibit A to Resolution 2016-25.

PLANNING OFFICIAL RICK SANDZIMIER – As modified.

CHAIR LOWELL – As modified. So I have made the motion. We have a second by Commissioner Nickel. Please cast your votes. Going once, going twice. All votes have been cast. The motion passes 7-0. Do we have a Staff wrap-up on this Item?

Opposed – 0

Motion carries 7 – 0

PLANNING OFFICIAL RICK SANDZIMIER – Yes. This is a project that you are the final deciding body on. It is appealable to the City Council. If anybody is interested in appealing, they can file an appeal within 15 days. That appeal should be directed through the Director of Community Development. It will be forwarded to our City Clerk and agendized for a City Council Hearing within 30 days.

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CHAIR LOWELL – Thank you very much. Moving onto Other Commissioner Business, which I don't think we have any.

OTHER COMMISSION BUSINESS

None

CHAIR LOWELL – Do we have any Staff Comments before we wrap up?

STAFF COMMENTS

PLANNING OFFICIAL RICK SANDZIMIER – I'd like to wish you all a very Merry Christmas and Happy New Year as we go into that.

CHAIR LOWELL – Thank you very much. Do we have any Planning Commissioner Comments?

PLANNING COMMISSIONER COMMENTS

VICE CHAIR BARNES – I second that.

COMMISSIONER RAMIREZ – I do. I just want to say thank you for this whole year. It has been great, a great learning experience with my fellow Commissioners. I have really enjoyed it. Thank you. And Staff as well. I have really enjoyed Staff input and…..

CHAIR LOWELL – As you can see the need for Alternate Planning Commissioners is very present today with both alternates being used. It has been very welcome. It has been a small learning curve throughout the year, but it has been a great addition to the Planning Commission. I welcome you guys, and thank you very much for your service and help.

ADJOURNMENT

CHAIR LOWELL – Again, I wish everybody happy holidays. Have a safe holiday season. Have a great New Year, and we will see you guys when we adjourn to the next Regular Planning Commission Meeting on January 26, 2017 right here at 7:00 PM. Thank you very much, and have a great night.

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NEXT MEETING

Next Meeting: Planning Commission Regular Meeting, January 26, 2017 at 7:00 PM, City of Moreno Valley, City Hall Council Chamber, 14177 Frederick Street, Moreno Valley, CA 92553.

_____ _____

Richard J. Sandzimier Date
Planning Official
Approved

_____ _____

Brian R. Lowell Date
Chair

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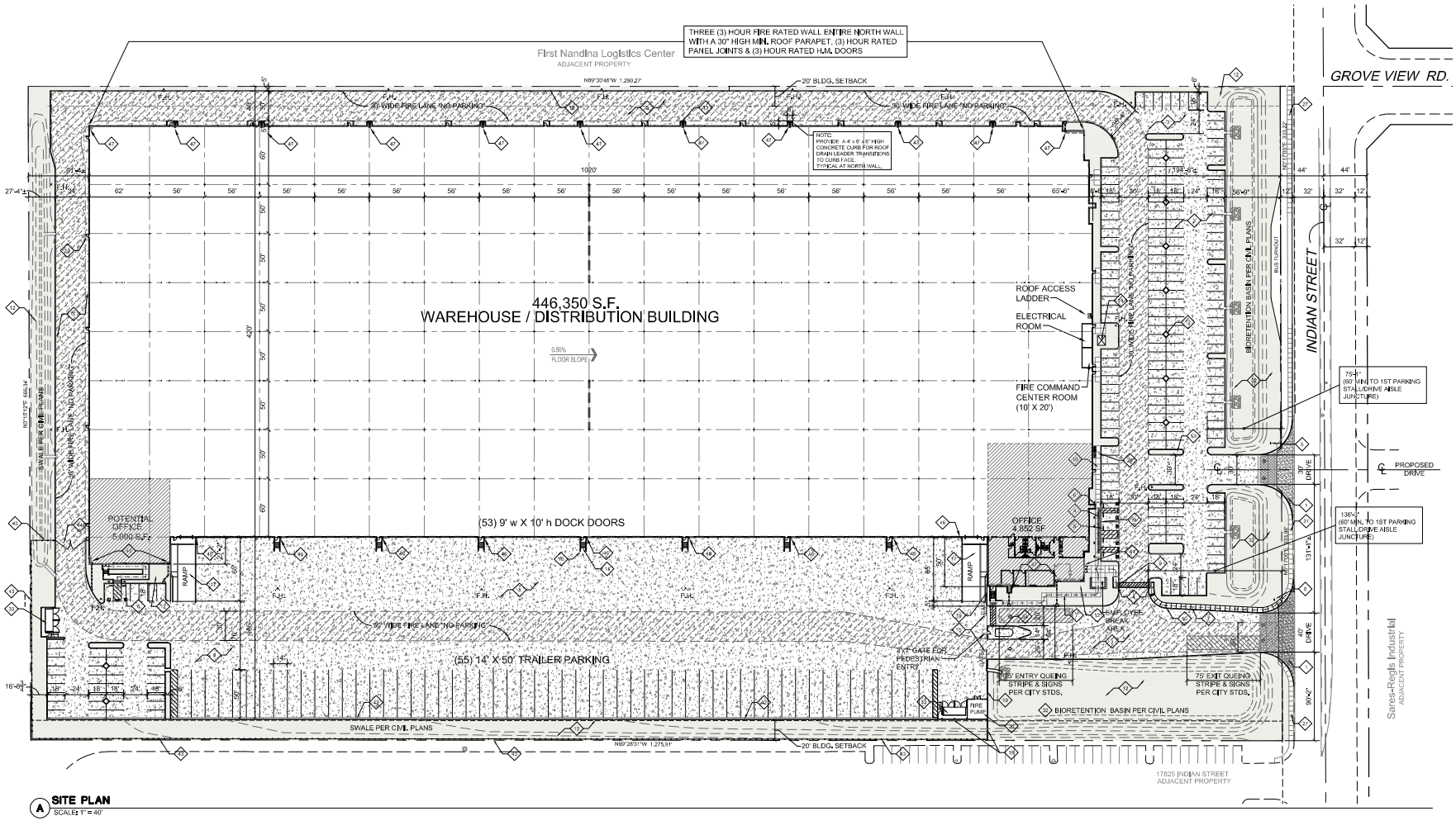


A SITE PLAN
SCALE: 1" = 40'

LEGAL DESCRIPTION

PARCEL A: PARCEL 1:
THE SOUTH 1/2 OF THE WEST 1/2 OF LOT 27 IN BLOCK 10F RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
PARCEL 2:
A NON-EXCLUSIVE EASEMENT OVER THE NORTHERLY 10 FEET OF THE SOUTH 1/2 OF THE EAST 1/2 OF LOT 27 IN BLOCK 10F RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, FOR UTILITY PURPOSES.
APN: 316-210-020-5
PARCEL B:
THE NORTH HALF OF THE EAST HALF OF LOT 27, BLOCK 10F RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, FOR UTILITY PURPOSES.
EXCEPTING THEREFROM THE EAST 10.00 FEET THEREOF, CONVEYED TO THE MARCH JOINT POWERS AUTHORITY, A BODY POLITIC BY DEEDS RECORDED JULY 23, 2001, AS INSTRUMENT NOS. 2001-339607 AND 2001-339608, BOTH OF OFFICIAL RECORDS.
APN: 316-210-027-9
PARCEL C:
THE NORTH 1/2 OF THE WEST 1/2 OF LOT 27, BLOCK 10F RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
APN: 316-210-019-3
PARCEL D:
ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:
THE SOUTH HALF OF THE EAST HALF OF LOT 27, IN BLOCK 1 OF RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE(S) 21 PF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
EXCEPTING THEREFROM THE EAST 10.00 FEET OF SAID LAND, AS CONVEYED TO THE MARCH JOINT POWERS AUTHORITY, A BODY POLITIC BY GRANT DEEDS RECORDED FEBRUARY 2, 2004, AS INSTRUMENT NOS. 2004-0074196, OF OFFICIAL RECORDS.
APN: 316-210-077-7

UTILITY PROVIDERS

SEWER/WATER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD
PERRIS, CA 92571
(951) 928-3777

GAS
THE GAS COMPANY
1981 W. LUGONIA
REDLANDS, CA 92374
(909) 335-7555

ELECTRIC
MORENO VALLEY UTILITIES
14177 FREDERICK ST.
(951) 413-3500

TELEPHONE
VERIZON
193 S. JUANITA
HEMET, CA 92543
(951) 658-7366

CABLE - TV
TIME WARNER
1500 AUTO CENTER DR.
ONTARIO, CA 91761
(951) 974-5380

SOLID WASTE
WASTE MANAGEMENT
14177 FREDERICK ST.
(951) 413-3109

PROJECT INFORMATION -

CONSTRUCTION TYPE: II-B
NUMBER OF FLOORS: 1
OCCUPANCY: S & B
FIRE SPRINKLERS: YES (ESFR)

ZONING:
MORENO VALLEY INDUSTRIAL AREA PLAN (SP 208)
BUSINESS PARK , (LINDUSTRIAL)

BUILDING SETBACKS:
MIN. STREET SIDE BUILDING SETBACK = 20'-0"
MIN. BUILDING SIDE SETBACK = 20'-0"
MIN. REAR BUILDING SETBACK = ON P.L. OR 3'-0" FROM P.L.

NOTE: STANDARD CONDITIONS OF APPROVAL SHALL APPLY.

DEVELOPER / OWNER / APPLICANT

SARES REGIS GROUP
18802 BARDEEN AVE.
IRVINE, CA 92612
CONTACT: PATRICK RUSSELL
TELEPHONE: (949) 753-0099
EMAIL: PRUSSELL@Sares-Regis.com

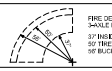
APPLICANT'S REPRESENTATIVE/ARCHITECT

HERDMAN RIERSON ARCHITECTURE & DESIGN, INC.
16201 SCIENTIFIC WAY
IRVINE, CA 92618
CONTACT: BRIDGET HERDMAN
PHONE: 714.389.2800
EMAIL: BRIDGET@HERDMANRIERSON.COM

PROJECT INFORMATION

PROJECT INFORMATION	03.22.2016	
GROSS SITE AREA	19.64 AC	855,518 SF
TOTAL BUILDING AREA		446,350 SF
WAREHOUSE		426,350 SF
OFFICE		10,000
MEZZANINE		10,000
NET COVERAGE		52.17%
LANDSCAPE PROVIDED	115,498 S.F.	13.50%
PARKING REQUIRED		
WAREHOUSE @ 1/1000 - 0-20K		20
WAREHOUSE @ 1/2000 - 20K-40K		10
WAREHOUSE @ 1/4000 - 40K-ABOVE		97
OFFICE @ 1/250 AT 20,000 S.F.		80.0
TOTAL REQUIRED		207 STALLS
PARKING PROVIDED		218 STALLS
STANDARD		211 AUTO
ADA		7 AUTO
TRAILER STALLS		55 TRAILER

FIRE DEPT. MIN. TURNING RADIUS



SITE LEGEND

LANDSCAPE AREA
FIRE ACCESS LANE
CONCRETE PAVING
COMPACT PARKING STALL
STANDARD PARKING STALL
CLEAN AIR VEHICLE PARKING STALL
TRAILER STALL
12" HIGH CURB

SITE LEGEND

LIGHT POLE W/ 25' HIGH POLE MOUNTED ON TOP OF 2' Ø X 4'-0" HIGH CONCRETE BASE
EXIT SIGN
TACTILE SIGNAGE
FIRE HYDRANT
ADA PATH OF TRAVEL
PROPERTY LINE
SETBACK LINE
STREET CENTER LINE

VICINITY MAP



SITE PLAN KEY NOTES

1. NEW DRIVE CUT. PER CITY OR COUNTY STANDARDS. REFER TO LANDSCAPE DRAWINGS FOR ENHANCED PAVING DESIGN IF APPLICABLE. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFO.
2. ASPHALT PAVING, TYP. REFER TO SOILS REPORT & CIVIL DRAWINGS FOR ADDITIONAL DESIGN CRITERIA.
3. CONCRETE PAVING. REFER TO CIVIL DRAWINGS FOR SECTION AND DRAINAGE. G.C. TO COORDINATE WITH SOILS REPORT. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE DESIGN AT TRUCK APRONS IF APPLICABLE.
4. TRUNCATED DOMES
5. ADA SITE ENTRY SIGN PER CODE, TYP.
6. ADA PARKING STALL SIGN PER CODE, TYP. PROVIDE AT ALL ADA STALLS.
7. ADA PATH OF TRAVEL
8. PRECAST CONCRETE WHEEL STOP
9. ZERO CURB FACE
10. CONCRETE WALK. SEE SITE PLAN FOR ADA PATH OF TRAVEL. 4" MIN THICKNESS. SCORE CONCRETE @ 5' O.C., PROVIDE A LIGHT BROOM FINISH. REFER TO LANDSCAPE DRAWINGS FOR SPECIALTY CONCRETE FINISHING, TYP. REFER TO SOILS REPORT FOR ADDITIONAL MIN. REQ.
11. EXTERIOR CONCRETE STAIR. REFER TO CIVIL AND STRUCTURAL DRAWINGS
12. LANDSCAPE AREA - SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION.
13. CONCRETE LANDING PAD & STEP(S) AS SHOWN @ EXTERIOR MAN DOORS. TYP. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION
14. PROPOSED TRANSFORMER LOCATION. PROVIDE BOLLARDS PER UTILITY COMPANY REQUIREMENTS. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION
15. 8'-0" HIGH SLIDING METAL GATE, WITH PERFORATED METAL BACKING PAINTED BLACK. PROVIDE KNOX PAD PER FIRE DEPT. STD.
16. PROTECTIVE METAL BOLLARDS. CONCRETE FILLED, PAINTED, TYP.
17. CONCRETE TRUCK RAMP WITH 42" HIGH CONCRETE GUARD-RAIL. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFO & DESIGN CRITERIA.
18. CONCRETE SCREEN WALL 14' HIGH PAINTED
19. PUBLIC SIDEWALK. REFER TO CIVIL DRAWINGS
20. SECURE BICYCLE RACK. REFER TO LANDSCAPE PLANS FOR MODEL SPECIFICATION AND ADDITIONAL INFORMATION.
21. ONSITE BIORETENTION / WATER TREATMENT BASIN. REFER TO CIVIL DRAWINGS & LANDSCAPE DRAWINGS
22. TRASH ENCLOSURE
23. GUARD SHACK
24. TRASH COMPACTOR
25. PUMP HOUSE
27. MONUMENT SIGN
28. AFFIX THE INTERNATIONAL ACCESSIBILITY SYMBOL AT ALL ACCESSIBLE ENTRANCES
43. 12" HIGH CURB
43. 12'-0" HIGH STEEL TUBE FENCE
44. 12'-0" HIGH STEEL TUBE SWING GATE. PROVIDE KNOX PAD PER FIRE DEPT. STD.

HERDMAN RIERSON
architecture + design, inc.
16201 Scientific Way
Irvine, CA 92618
www.HerdmanRierson.com
714.389.2800
info@HerdmanRierson.com

LICENSED ARCHITECT BRIDGET HERDMAN STATE OF CALIFORNIA
C-12810
12.31.2017
RENEWAL DATE

GENERAL CONTRACTOR
T.B.D.

CONSULTANTS
STRUCTURAL ENGINEER:
MECHANICAL ENGINEER:
PLUMBING ENGINEER:
ELECTRICAL ENGINEER:
FIRE PROTECTION:

PROJECT
SRG MORENO VALLEY INDUSTRIAL
INDIAN ST./GROVE VIEW RD.
MORENO VALLEY, CA

CLIENT
Sares-Regis Group
18802 BARDEEN AVENUE
IRVINE, CA 92612

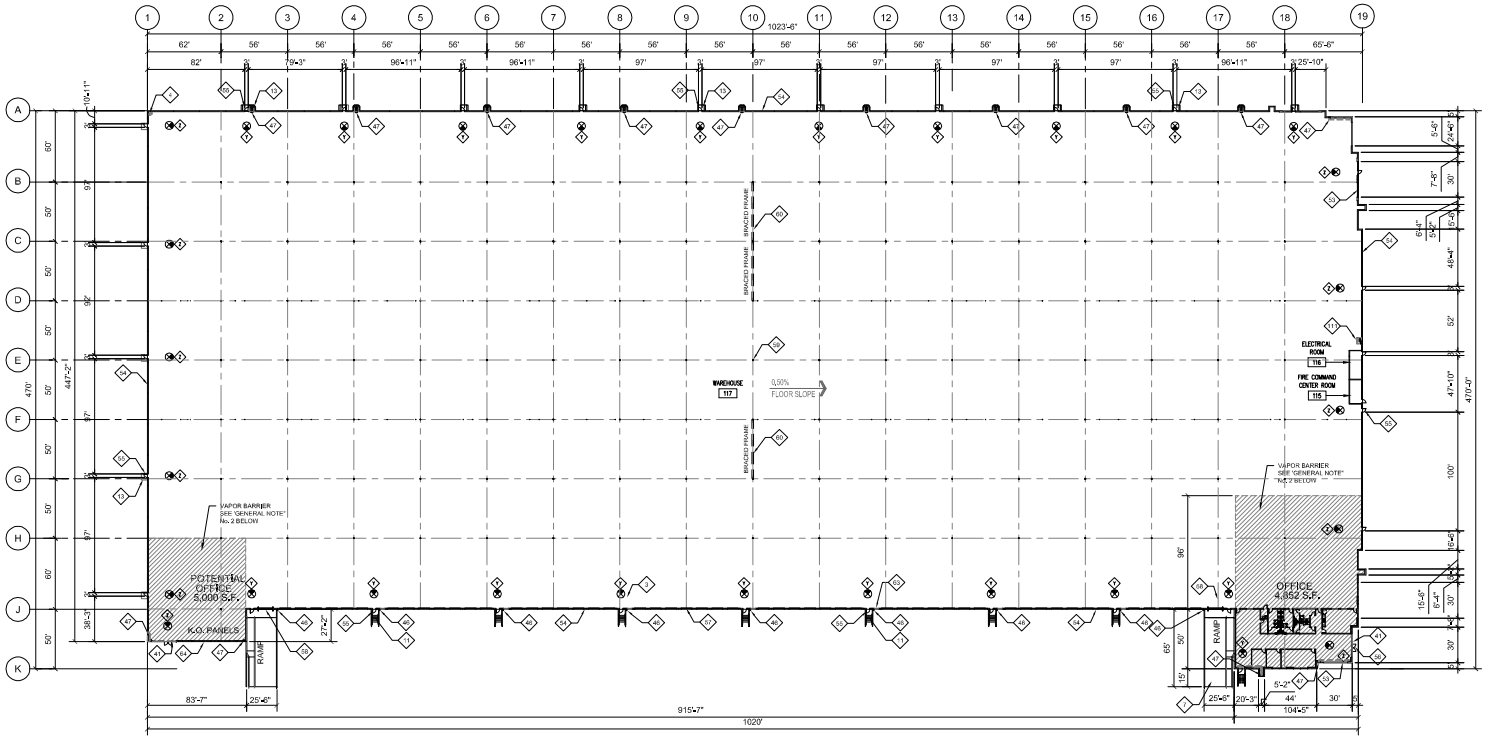
DRAWING INFO

ID	DATE	DESCRIPTION
17.0XXXX	00.00.000	RESUBMITTAL

DATE DRAWN:
DRAWN BY:
HRA-AD JOB NO:

NORTH

SITE PLAN



A FLOOR PLAN
SCALE: 1" = 40'

FLOOR PLAN WALL LEGEND

- CONCRETE TILT-UP WALL
- STOREFRONT SYSTEM - SEE ELEVATIONS FOR ARCHITECTURAL DETAILS
- KNOCK-OUT OPENING IN CONCRETE TILT-UP PANEL
- PROVIDE MOISTURE BARRIER BELOW FLOOR SLAB PER GENERAL NOTES

EMERGENCY EXIT SIGN & BRAILLE SIGNAGE

- ILLUMINATED EMERGENCY EXIT SIGN PER CBC AND FIRE DEPT. SEE "E" DRAWINGS FOR LOCATION. SIGN SHALL BE CONTINUOUSLY ILLUMINATED FOR DURATION OF 90 MIN. IN CASE OF PRIMARY POWER LOSS.
- PROVIDE BRAILLE SIGNAGE SEE DETAIL No. 13/A0.2.2

FLOOR PLAN GENERAL NOTES

1. FINISH FLOOR SLAB IS SLOPED. REFER TO CIVIL DRAWINGS FOR ELEVATIONS AND ADDITIONAL INFORMATION.
2. PROVIDE STEGO VRAP 15MIL BARRIER BELOW SLAB PER MANUFACTURERS INSTRUCTIONS AND PER SOILS REPORT IN LOCATIONS FOR PROPOSED OFFICE AREAS. SEE FLOOR PLAN LEGEND FOR HATCHED AREAS.
3. REFER TO STRUCTURAL DRAWINGS FOR DESIGN OF FOUNDATION.
4. POUR STRIP TO BE SLOPED TO EXTERIOR DOORS 2%.
5. PROVIDE FIRE EXTINGUISHERS AS REQUIRED BY FIRE DEPARTMENT AND CBC/CFC.
6. PROVIDE ILLUMINATED EXIT SIGNS AT ALL EXTERIOR EXIT DOORS, DOORS EXITING FROM TENANT SPACES, DOORS INTO EXIT ENCLOSURES, AND ANY ADDITIONAL LOCATIONS NOTED ON PLANS. SEE "E" DRAWINGS FOR ADDITIONAL REQUIREMENTS.
7. ALL FIRE RATED PARTITIONS TO BE EXTENDED TO DECK ABOVE, AND PENETRATIONS TO BE SEALED.
8. DO NOT USE CURING COMPOUND OR RELEASE AGENTS TO CURE SLAB.
9. CRANES, CONCRETE TRUCKS, AND SIMILAR HEAVY EQUIPMENT PROHIBITED ON SLAB.
10. FLY-ASH PROHIBITED IN CONCRETE SLAB MIX.
11. STOREFRONT FRAMING TO BE RECESSED IN SLAB 2". SEE DETAIL SHEETS.
12. FLOOR SLAB TO BE CLASS 1 PER ACI 302-1R-89 SEE "S" DWGS FOR ADDITIONAL INFO.
13. FLOOR COMPACTION TO BE 95% MIN.
14. TRENCH COMPACTION TO BE 90% MIN.
15. SLAB FINISH TO BE STEEL, FLOAT HARD TROWEL BURNISHED FINISH.
16. DIMENSIONS ARE TO FACE OF CONCRETE PANEL, FINISH FACE OF DRYWALL, FINISH OPENING, TYPICAL UNLESS NOTED OTHERWISE.
17. PROVIDE EXIT SIGNS INCLUDING "TACTILE SIGN - REQUIRED BY SECTION 1011 OF 2013 CBC. SIGN TO BE CONTINUOUSLY ILLUMINATED FOR DURATION OF 90 MIN IN CASE OF PRIMARY POWER LOSS.
18. ALL MAN DOORS, OVERHEAD DOORS, AND ROLL-UP DOORS TO BE DESIGNED FOR WIND LOAD AND EXPOSURE DETERMINED BY BUILDING CODE AND LOCAL JURISDICTION.
19. ALL STOREFRONT SYSTEMS TO BE DESIGNED FOR WIND LOAD AND EXPOSURE DETERMINED BY THE BUILDING CODE AND LOCAL JURISDICTION. STOREFRONT SYSTEMS TO BE DESIGN BUILD.
20. REFER TO CIVIL DRAWINGS FOR ALL POINT OF CONNECTIONS FOR UTILITIES. CONTRACTOR TO VERIFY LOCATIONS.
21. PROVIDE STEEL BOLLARDS FILLED WITH CONCRETE AND PAINTED PER FINISH SCHEDULE AT FIRE RISERS, PIVI, TRANSFORMERS, AND OTHER LOCATIONS AS REQUIRED.
22. CONTRACTOR TO MAINTAIN A CLEAN FLOOR SLAB. ALL TRUCKS AND EQUIPMENT TO BE DIAPERED.

FLOOR PLAN KEY NOTES

- 1.1 EXTERIOR CONCRETE STAIR W/CONCRETE WALLS & RAILINGS PAINTED PER EXTERIOR COLOR SCHEDULE. REFER TO SOILS REPORT FOR ADDITIONAL INFORMATION
- 1.3 CONCRETE LANDING PAD & STEP(S) AS SHOWN @ EXTERIOR MAN DOORS, TYP. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION - SEE DETAIL 7/AD.1
- 4.1 AFFIX THE INTERNATIONAL ACCESSIBILITY SYMBOL AT ALL ACCESSIBLE ENTRANCES. SEE DETAIL ON 9/AD.2.2
- 4.5 EXTERIOR METAL DOWNSPOUT AND OVERFLOW SCUPPERS PAINTED TO MATCH BUILDING - SEE DETAILS 15 & 16/A0.2 REFER TO PLUMBING PLANS FOR MINIMUM SCUPPER OPENINGS ALLOWABLE PER CODE.
- 4.7 INTERIOR ROOF DRAIN AND INTERIOR OVERFLOW DRAIN SEE DETAIL 4 & 8/AD.2
- 5.1 STOREFRONT, SEE ELEVATIONS & EXTERIOR COLOR SCHEDULE, STORE FRONT TO BE DESIGNED TO RESIST WIND LOAD AS REQUIRED BY BUILDING CODES AND LOCAL JURISDICTION. DESIGN OF STOREFRONT FRAMING SYSTEM AND STRUCTURAL CALCULATIONS TO BE DESIGN BUILD BY G.C. AND UNDER DEFERRED SUBMITTAL
- 5.4 CONCRETE TILT-UP PANEL, TYP. PAINTED, SEE EXTERIOR COLOR SCHEDULE, REFER TO ELEVATIONS AND "S" DRAWINGS FOR ADDITIONAL INFORMATION
- 5.5 EXTERIOR MAN DOOR 3'X7', HOLLOW METAL, PAINTED. SEE EXTERIOR COLOR SCHEDULE & DOOR SCHEDULE FOR ADDITIONAL INFO
- 5.6 EXTERIOR STOREFRONT DOOR. SEE EXTERIOR COLOR SCHEDULE & DOOR SCHEDULE FOR ADDITIONAL INFO.
- 5.7 DOCK-HI LOADING DOOR, 9' X 10', WITH VISION GLAZING. PRE FINISHED BY MANUFACTURER PER COLOR SCHEDULE
- 5.8 DRIVE THRU LOADING DOOR 12'X14' WITH VISION GLAZING. PRE FINISHED BY MANUFACTURER PER COLOR SCHEDULE
- 5.9 STRUCTURAL BUILDING COLUMN, SEE "S" DRAWINGS
- 6.1 STRUCTURAL BRACE FRAME SEE "S" DRAWINGS
- 7.1 FIRE RISER, REFER TO FP DRAWINGS, FULLY SEAL AROUND RISER OPENING IN FLOOR, PROVIDE CLEAN GRAVEL FILL AT OPENING BETWEEN RISER & SLAB, TYP. PROVIDE CONTROL VALVE EVERY FLOOR. SEE DETAIL 9/AD.1
- 7.5 AIR INTAKE LOUVER, PAINT TO MATCH BUILDING WALL, TYP. - SEE DETAIL 3/AD.2 SIDE: VENTDAL 4700
- 7.6 KNOCK-OUT PANEL. REFER TO FLOOR PLAN & ELEVATIONS FOR SIZE. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFO.
- 7.11 ROOF ACCESS LADDER - PAINTED TO MATCH ADJACENT WALL

HERDMAN RIERSON
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Irvine, CA 92618
www.HerdmanRierson.com
714.389.2800
info@HerdmanRierson.com

LICENSED ARCHITECT — REGISTERED — STATE OF CALIFORNIA — C-32810 — 12/31/2017 RENEWAL DATE

GENERAL CONTRACTOR
T.B.D.

CONSULTANTS
STRUCTURAL ENGINEER:
MECHANICAL ENGINEER:
PLUMBING ENGINEER:
ELECTRICAL ENGINEER:
FIRE PROTECTION:

PROJECT
SRG MORENO VALLEY INDUSTRIAL
INDIAN ST./GROVE VIEW RD.
MORENO VALLEY, CA

CLIENT
Sares-Regis Group
18802 BARDEEN AVENUE
IRVINE, CA 92612

DRAWING INFO

ID	DATE	DESCRIPTION
	11/18/2016	100% DESIGN DEVELOPMENT

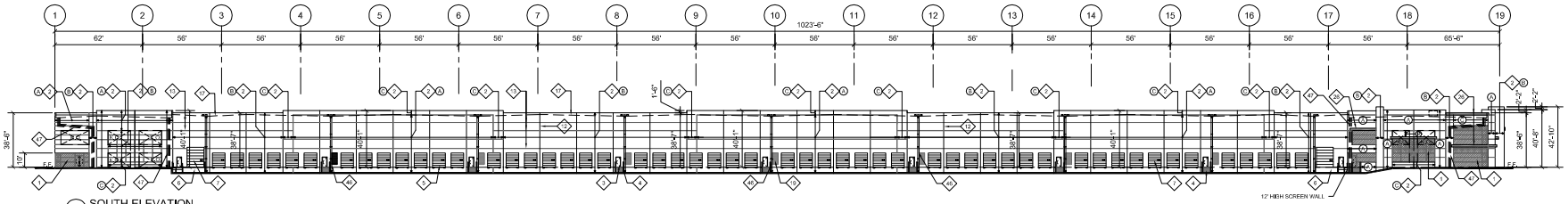
DATE DRAWN:
DRAWN BY:
HRA JOB NO:

NORTH

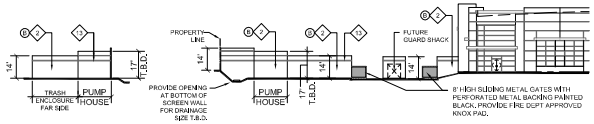
FLOOR PLAN

Packet Pg. 1280

E.2.m

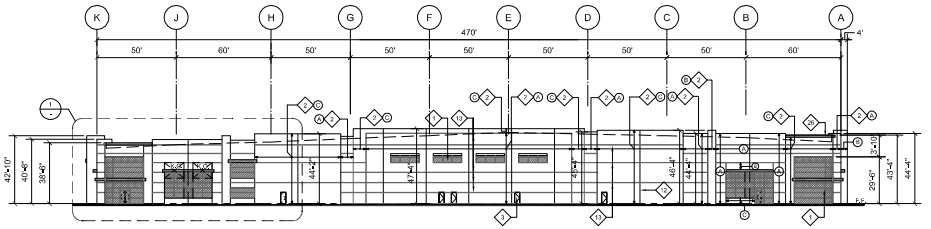


A SOUTH ELEVATION
SCALE: 1" = 30'

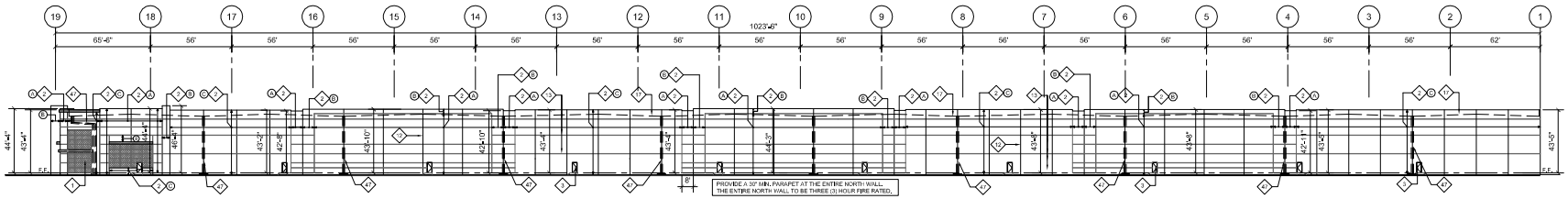


B.2 SITE WALL ELEV.
SCALE: 1" = 30'

B.1 SITE WALL ELEV.
SCALE: 1" = 30'



B EAST ELEVATION
SCALE: 1" = 30'



C NORTH ELEVATION
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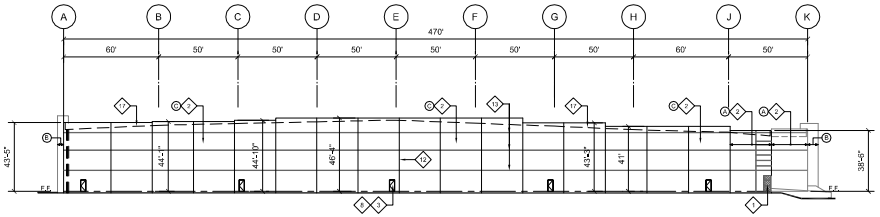
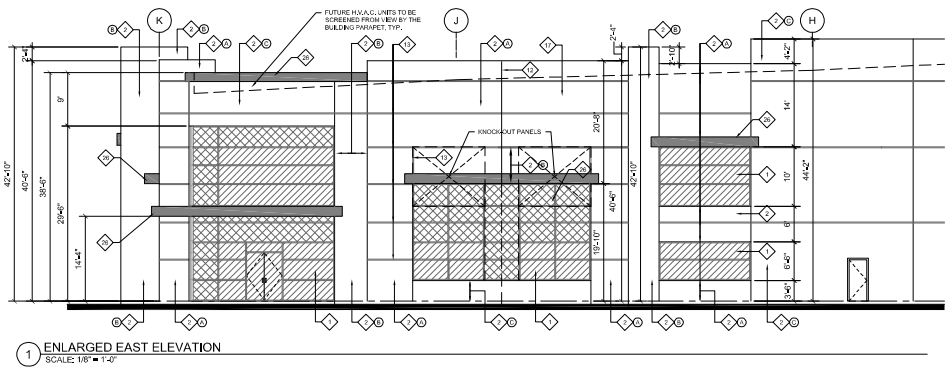


D WEST ELEVATION
SCALE: 1" = 30'



1 ENLARGED EAST ELEVATION
SCALE: 1/8" = 1'-0"

EXTERIOR COLOR SCHEDULE

- A DUNN EDWARDS EXTERIOR PAINT COLOR: DEC 6060 TWILIGHT TAUP
- B DUNN EDWARDS EXTERIOR PAINT COLOR: DEC 6058 THICK FOG
- C DUNN EDWARDS EXTERIOR PAINT COLOR: DEC 6059 CHOCOLATE MILK
- D DECORATIVE METAL CANOPY WITH FINISH TO MATCH CLEAR ANODIZED MULLIONS
- E STOREFRONT MEDIUM PERFORMANCE BLUE REFLECTIVE GLAZING & CLEAR ANODIZED MULLIONS. MULLIONS TO BE 2X8 REAR/SET GLAZING SYSTEM, TYP. U.N.O.

TYP PAINT NOTES:
PAINT MAN DOORS, GUARD WALLS, RAMP WALLS, STAIR WALLS, GUARD RAILS, ROOF DRAINS, AND LOUVERS TO MATCH ADJACENT BUILDING WALL U.N.O.

TRUCK DOORS TO BE PRE-FINISHED BY MANUFACTURER IN WHITE FINISH

LEGEND

VISION GLAZING:

SPANDREL GLAZING:

ELEVATION KEY NOTES

1. STOREFRONT FRAMING, SEE EXTERIOR COLOR SCHEDULE
2. CONCRETE TILT-UP PANEL, TYP., PAINTED, SEE EXTERIOR COLOR SCHEDULE
3. EXTERIOR MAN DOOR 3'X7', HOLLOW METAL, PAINTED, SEE EXTERIOR COLOR SCHEDULE, TYP
4. EXTERIOR CONCRETE STAIR, WALLS & RAILING PAINTED PER EXTERIOR COLOR SCHEDULE, TYP
5. DOCK-HI LOADING DOOR, 9'X10', WITH VISION GLAZING, PRE FINISHED BY MANUFACTURER PER COLOR SCHEDULE
6. CONCRETE TRUCK RAMP WITH 42" HIGH CONC. TILT UP GUARD WALLS PAINTED TO MATCH BUILDING
7. DRIVE THRU LOADING DOOR 12'X14' WITH VISION GLAZING, PRE FINISHED BY MANUFACTURER PER COLOR SCHEDULE
8. CONCRETE LANDING PAD @ EXTERIOR MAN DOOR WITH STEP(S) AS SHOWN, PROVIDE HANDRAIL/GUARDRAIL AS REQUIRED, TYP
12. PANEL JOINT, TYP. - NOTE: PROVIDE THREE (3) HOUR RATED JOINT SEALER AT NORTH WALL ONLY.
13. 2" DECORATIVE CONCRETE REVEAL WITH CHAMFERED EDGES, TYP.
17. ROOF LINE BEYOND
19. WALL LOUVER PAINT TO MATCH BUILDING, BIRD SCREEN AND FILTER AND BURGLAR BARS
20. DECORATIVE METAL CANOPY
46. EXTERIOR METAL DOWNSPOUT AND OVERFLOW SCUPPERS PAINTED TO MATCH BUILDING - SEE DETAILS 15 & 16/A0.1 REFER TO PLUMBING PLANS FOR MINIMUM SCUPPER OPENINGS ALLOWABLE PER CODE.
47. INTERIOR ROOF DRAIN AND INTERIOR OVERFLOW DRAIN SEE DETAIL 7 & 11/AD.3

HERDMAN RIERSON
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Irvine, CA 92618
www.HerdmanRierson.com
714.389.2800
info@HerdmanRierson.com

LICENSED ARCHITECT — BRADLEY HERDMAN — C-32810 — 12.31.2017 RENEWAL DATE — STATE OF CALIFORNIA

GENERAL CONTRACTOR
T.B.D.

CONSULTANTS
STRUCTURAL ENGINEER:
MECHANICAL ENGINEER:
PLUMBING ENGINEER:
ELECTRICAL ENGINEER:
FIRE PROTECTION:

PROJECT
SRG
MORENO VALLEY
INDUSTRIAL

INDIAN ST./GROVE VIEW RD.
MORENO VALLEY, CA

CLIENT
Sares-Regis Group

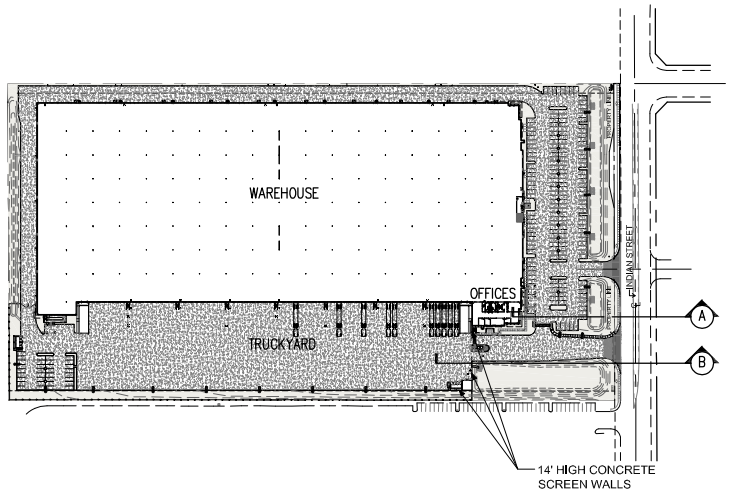
18802 BARDEEN AVENUE
IRVINE, CA 92612

DRAWING INFO

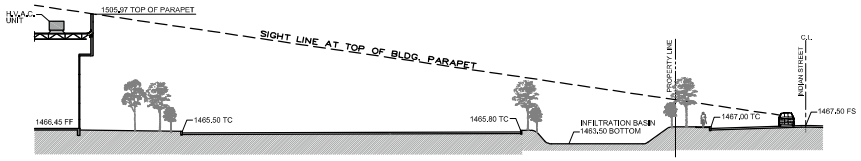
ID	DATE	DESCRIPTION

DATE DRAWN:
DRAWN BY:
HRA&D JOB NO:

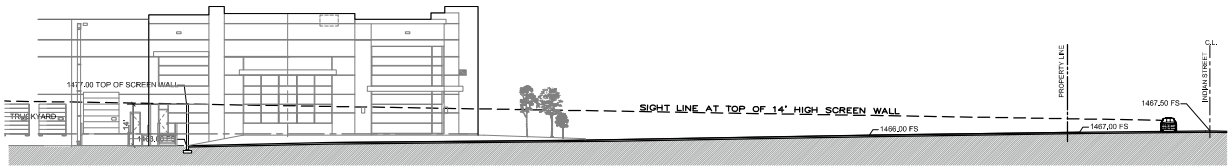
EXTERIOR ELEVATIONS



1 FLOOR PLAN
SCALE: 1" = 100'



A FLOOR PLAN
SCALE: 1/16" = 1'-0"



B FLOOR PLAN
SCALE: 1/16" = 1'-0"

HERDMAN RIERSON
architecture + design, inc.
16201 Scientific Way
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info@HerdmanRierson.com

LICENSED ARCHITECT
STUDEY HERDMAN
C-32810
12-31-2017
RENEWAL DATE
STATE OF CALIFORNIA

GENERAL CONTRACTOR

T.B.D.

CONSULTANTS

STRUCTURAL ENGINEER:

MECHANICAL ENGINEER:

PLUMBING ENGINEER:

ELECTRICAL ENGINEER:

FIRE PROTECTION:

PROJECT

SRG
MORENO VALLEY
INDUSTRIAL

17783 INDIAN STREET
MORENO VALLEY, CA

CLIENT

Sares-Regis Group

18802 BARDEEN AVENUE
IRVINE, CA 92612

DRAWING INFO

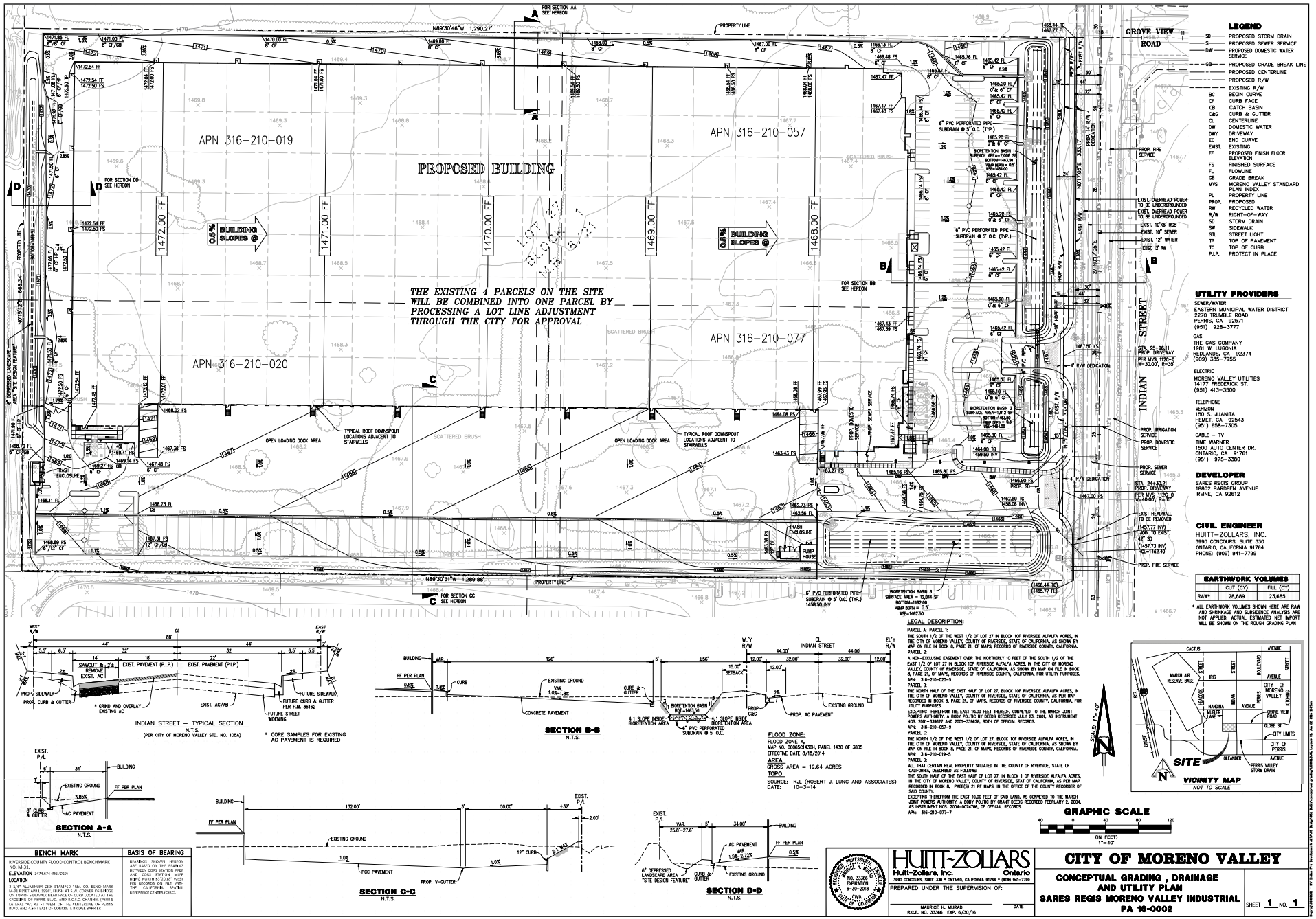
ID	DATE	DESCRIPTION
	11/08/2016	80905-DD 10 FBI-01 100

DATE DRAWN:
DRAWN BY: JB
HR-A&D JOB NO: A-PR-017

NORTH

SIGHT LINE STUDY

ßìòð



LEGEND

SD	PROPOSED STORM DRAIN
S	PROPOSED SEWER SERVICE
DW	PROPOSED DOMESTIC WATER SERVICE
GB	PROPOSED GRADE BREAK LINE
	PROPOSED CENTERLINE
	PROPOSED R/W
	EXISTING R/W
BC	BEGIN CURVE
CF	CURB FACE
CB	CATCH BASIN
C&G	CURB & GUTTER
CL	CENTERLINE
DW	DOMESTIC WATER
DWY	DRIVEWAY
EC	END CURVE
EXIST.	EXISTING
FF	PROPOSED FINISH FLOOR ELEVATION
FS	FINISHED SURFACE
FL	FLOWLINE
GB	GRADE BREAK
MVSI	MORENO VALLEY STANDARD PLAN INDEX
PL	PROPERTY LINE
PROP.	PROPOSED
RW	RECYCLED WATER
R/W	RIGHT-OF-WAY
SD	STORM DRAIN
SW	SIDEWALK
STL	STREET LIGHT
TP	TOP OF PAVEMENT
TC	TOP OF CURB
P.I.P.	PROTECT IN PLACE

UTILITY PROVIDERS

SEWER/WATER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD
PERRIS, CA 92571
(951) 928-3777

GAS
THE GAS COMPANY
1981 W. LUGONIA
REDLANDS, CA 92374
(909) 335-7955

ELECTRIC
MORENO VALLEY UTILITIES
14177 FREDERICK ST.
(951) 413-3500

TELEPHONE
VERIZON
150 S. JUANITA
HEMET, CA 92543
(951) 658-7306

CABLE - TV
TIME WARNER
1500 AUTO CENTER DR.
ONTARIO, CA 91761
(951) 975-3380

DEVELOPER

SARES REGIS GROUP
18802 BARDEEN AVENUE
IRVINE, CA 92612

CIVIL ENGINEER

HUITT-ZOLLARS, INC.
3990 CONCOURS, SUITE 330
ONTARIO, CALIFORNIA 91764
PHONE: (909) 941-7799

EARTHWORK VOLUMES

	CUT (CY)	FILL (CY)
RAW*	28,669	23,685

* ALL EARTHWORK VOLUMES SHOWN HERE ARE RAW AND SHRINKAGE AND SUBSIDENCE ANALYSIS ARE NOT APPLIED. ACTUAL ESTIMATED NET IMPORT WILL BE SHOWN ON THE ROUGH GRADING PLAN

LEGAL DESCRIPTION:

PARCEL A: PARCEL 1:
THE SOUTH 1/2 OF THE WEST 1/2 OF LOT 27 IN BLOCK 10F RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
PARCEL 2:
A NON-EXCLUSIVE EASEMENT OVER THE NORTHERLY 10 FEET OF THE SOUTH 1/2 OF THE EAST 1/2 OF LOT 27 IN BLOCK 10F RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, FOR UTILITY PURPOSES.
APN: 316-210-020-5
PARCEL B:
THE NORTH HALF OF THE EAST HALF OF LOT 27, BLOCK 10F RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, FOR UTILITY PURPOSES.
EXCEPTING THEREFROM THE EAST 10.00 FEET THEREOF, CONVEYED TO THE MARCH JOINT POWERS AUTHORITY, A BODY POLITIC BY DEEDS RECORDED JULY 23, 2001, AS INSTRUMENT NOS. 2001-339827 AND 2001-339828, BOTH OF OFFICIAL RECORDS.
APN: 316-210-057-9
PARCEL C:
THE NORTH 1/2 OF THE WEST 1/2 OF LOT 27, BLOCK 10F RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
APN: 316-210-019-5
PARCEL D:
ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:
THE SOUTH HALF OF THE EAST HALF OF LOT 27, IN BLOCK 1 OF RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STAT OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE(S) 21 PF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
EXCEPTING THEREFROM THE EAST 10.00 FEET OF SAID LAND, AS CONVEYED TO THE MARCH JOINT POWERS AUTHORITY, A BODY POLITIC BY GRANT DEEDS RECORDED FEBRUARY 2, 2004, AS INSTRUMENT NOS. 2004-0074786, OF OFFICIAL RECORDS.
APN: 316-210-077-7

FLOOD ZONE:

FLOOD ZONE X,
MAP NO. 06065C1430H, PANEL 1430 OF 3805
EFFECTIVE DATE 8/18/2014

AREA

GROSS AREA = 19.64 ACRES

TOPO

SOURCE: R.J. (ROBERT J. LUNG AND ASSOCIATES)
DATE: 10-3-14

VICINITY MAP
NOT TO SCALE

GRAPHIC SCALE

40 0 40 80 120
(IN FEET)
1" = 40'

BENCH MARK

RIVERSIDE COUNTY FLOOD CONTROL BENCHMARK NO. M-51.
ELEVATION 1474.674 (NGVD1929)
LOCATION
3 3/4" ALUMINUM DISK STAMPED "RIV. CO. BENCHMARK M-51 RESET APR. 1999, FLUSH AT S.W. CORNER OF BRIDGE OVER PERRIS VALLEY STORM DRAIN, 0.2 MILES SOUTH OF THE CROSSING OF PIGEON PASS ROAD AND R.C.F.C. CHANNEL, STAMPED ORIGINAL TACH 43 FT WEST OF THE CENTERLINE OF PERRIS BLVD. AND 4.6 FT EAST OF CONCRETE BRIDGE BARRIER

BASIS OF BEARING

BEARINGS SHOWN HEREON ARE BASED ON THE BEARING BETWEEN CORS STATION P760 AND CORS STATION MUPP BEING NORTH 47°33'10" WEST PER RECORDS ON FILE WITH THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC).

NO. 33366 EXPIRATION 6-30-2018 CIVIL STATE OF CALIFORNIA

HUITT-ZOLLARS
Huitt-Zollars, Inc. Ontario
3990 CONCOURS, SUITE 330 • ONTARIO, CALIFORNIA 91764 • (909) 941-7799

PREPARED UNDER THE SUPERVISION OF:
MAURICE H. MURAD
R.C.E. NO. 33366 EXP. 6/30/16
DATE

CITY OF MORENO VALLEY

CONCEPTUAL GRADING, DRAINAGE AND UTILITY PLAN

SARES REGIS MORENO VALLEY INDUSTRIAL

PA 16-0002

SHEET 1 NO. 1

INDIAN STREET – TYPICAL SECTION
N.T.S.
(PER CITY OF MORENO VALLEY STD. NO. 105A)

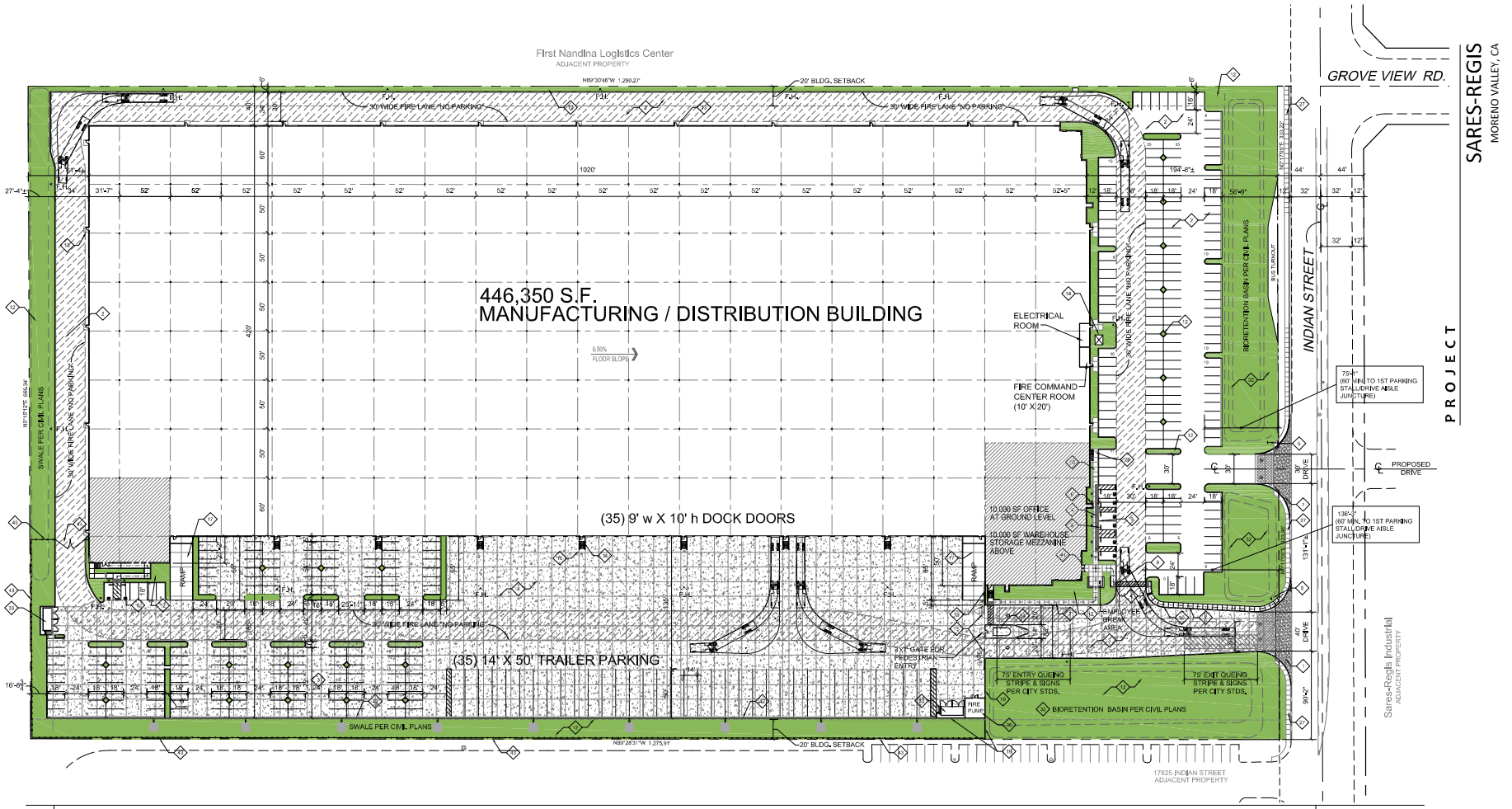
* CORE SAMPLES FOR EXISTING AC PAVEMENT IS REQUIRED

SECTION B-B
N.T.S.

SECTION A-A
N.T.S.

SECTION C-C
N.T.S.

SECTION D-D
N.T.S.



A | CONCEPTUAL SITE PLAN

SCALE: 1" = 40'

LEGAL DESCRIPTION

PARCEL A: PARCEL 1:
THE SOUTH 1/2 OF THE WEST 1/2 OF LOT 27 IN BLOCK 107 RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 6, PAGE 25, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
PARCEL 2:
A NON-EXCLUSIVE EASEMENT OVER THE NORTHERLY 10 FEET OF THE SOUTH 1/2 OF THE EAST 1/2 OF LOT 27 IN BLOCK 107 RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 6, PAGE 25, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, FOR UTILITY PURPOSES.
APN: 316-210-020-5
PARCEL B:
THE NORTH HALF OF THE EAST HALF OF LOT 27, BLOCK 107 RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 6, PAGE 25, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, FOR UTILITY PURPOSES.
EXCEPTING THEREFROM THE EAST 1020 FEET THEREOF, CONVEYED TO THE MARCH JOINT POWERS AUTHORITY, A BODY POLITIC BY DEEDS RECORDED JULY 23, 2007, AS INSTRUMENT NOS. 2007-339427 AND 2007-339428, BOTH OF OFFICIAL RECORDS.
APN: 316-210-057-9
PARCEL C:
THE NORTH 1/2 OF THE WEST 1/2 OF LOT 27, BLOCK 107 RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 6, PAGE 25, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
APN: 316-210-019-3
PARCEL D:
ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:
THE SOUTH HALF OF THE EAST HALF OF LOT 27, IN BLOCK 1 OF RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 6, PAGE(S) 25 PF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
EXCEPTING THEREFROM THE EAST 1020 FEET OF SAID LAND, AS CONVEYED TO THE MARCH JOINT POWERS AUTHORITY, A BODY POLITIC BY GRANT DEEDS RECORDED FEBRUARY 2, 2004, AS INSTRUMENT NOS. 2004-074788, OF OFFICIAL RECORDS.
APN: 316-210-077-7

UTILITY PROVIDERS

SEWER/WATER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD
PERRIS, CA 92571
(951) 928-3777

TELEPHONE
VERIZON
150 S. JUANITA
HEMET, CA 92543
(951) 654-7303

GAS
THE GAS COMPANY
1981 W. LUGONIA
REDLANDS, CA 92374
(909) 335-7555

CABLE - TV
TIME WARNER
1500 AUTO CENTER DR.
ONTARIO, CA 91761
(951) 975-5380

ELECTRIC
MORENO VALLEY UTILITIES
14177 FREDERICK ST.
(951) 413-3500

SOLID WASTE
WASTE MANAGEMENT
14177 FREDERICK ST.
(951) 413-3109

PROJECT INFORMATION -

CONSTRUCTION TYPE: IIIB
NUMBER OF FLOORS: 1
OCCUPANCY: S-5 B
FIRE SPRINKLERS: YES (ESFR)

ZONING:
MORENO VALLEY INDUSTRIAL AREA PLAN (SP 208)
BUSINESS PARK, (LINDUSTRIAL)

BUILDING SETBACKS:
MIN. STREET SIDE BUILDING SETBACK = 20'-0"
MIN. BUILDING SIDE SETBACK = 20'-0"
MIN. REAR BUILDING SETBACK = ON P.L. OR 3'-0" FROM P.L.

NOTE: STANDARD CONDITIONS OF APPROVAL SHALL APPLY.

PROJECT INFORMATION

PROJECT INFORMATION	04.19.2016	
GROSS SITE AREA	19.64 AC	855,518 SF
TOTAL BUILDING AREA		446,350 SF
FOOTPRINT		436,350 SF
WAREHOUSE		337,080 SF
MANUFACTURING		89,270 SF
OFFICE		10,000 SF
MEZZANINE WAREHOUSE		10,000 SF
NET COVERAGE		52.17%
LANDSCAPE PROVIDED	118,332 S.F.	13.83%
PARKING REQUIRED		
WAREHOUSE @ 1/1000 - 0-20K		20
WAREHOUSE @ 1/2000 - 20K-40K		10
WAREHOUSE @ 1/4000 - 40K-ABOVE		76
MANUF @ 1/500		179
OFFICE @ 1/250 AT 10,000 S.F.		40.0
TOTAL REQUIRED		323 STALLS
PARKING PROVIDED		326 STALLS
STANDARD		318 AUTO
ADA		8 AUTO
TRAILER STALLS		35 TRAILER

SITE LEGEND

LANDSCAPE AREA
FIRE ACCESS LANE
CONCRETE PAVING
STANDARD PARKING STALL
CLEAN AIR VEHICLE PARKING STALL
TRAILER STALL
12" HIGH CURB

SITE LEGEND

LIGHT POLE W/ 25' HIGH POLE MOUNTED ON TOP OF 2' @ X 42" HIGH CONCRETE BASE
EXIT SIGN
TACTILE SIGNAGE
FIRE HYDRANT
ADA PATH OF TRAVEL
PROPERTY LINE
SETBACK LINE
STREET CENTER LINE

VICINITY MAP



SITE PLAN KEY NOTES

1. NEW DRIVE CUT. PER CITY OR COUNTY STANDARDS. REFER TO LANDSCAPE DRAWINGS FOR ENHANCED PAVING DESIGN IF APPLICABLE. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFO.
2. ASPHALT PAVING, TYP. REFER TO SOILS REPORT & CIVIL DRAWINGS FOR ADDITIONAL DESIGN CRITERIA.
3. CONCRETE PAVING. REFER TO CIVIL DRAWINGS FOR SECTION AND DRAINAGE, S.C. TO COORDINATE WITH SOILS REPORT. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE DESIGN AT TRUCK APRONS IF APPLICABLE.
4. TRUNCATED DOMES
5. ADA SITE ENTRY SIGN PER CODE, TYP.
6. ADA PARKING STALL SIGN PER CODE, TYP. PROVIDE AT ALL ADA STALLS.
7. ADA PATH OF TRAVEL
8. PRECAST CONCRETE WHEEL STOP
9. ZERO CURB FACE
10. CONCRETE WALK. SEE SITE PLAN FOR ADA PATH OF TRAVEL. 4" MIN THICKNESS. SCORE CONCRETE @ 5' O.C. PROVIDE A LIGHT BROOM FINISH. REFER TO LANDSCAPE DRAWINGS FOR SPECIALTY CONCRETE FINISHING, TYP. REFER TO SOILS REPORT FOR ADDITIONAL MIN. REQ.
11. EXTERIOR CONCRETE STAIR. REFER TO CIVIL AND STRUCTURAL DRAWINGS
12. LANDSCAPE AREA - SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION.
13. CONCRETE LANDING PAD & STEP(S) AS SHOWN @ EXTERIOR MAN DOORS, TYP. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION
14. PROPOSED TRANSFORMER LOCATION. PROVIDE BOLLARDS PER UTILITY COMPANY REQUIREMENTS. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION
15. 8'-0" HIGH SLIDING METAL GATE, WITH PERFORATED METAL BACKING PAINTED BLACK. PROVIDE KNOX PAD PER FIRE DEPT. STD.
16. PROTECTIVE METAL BOLLARDS, CONCRETE FILLED, PAINTED, TYP.
17. CONCRETE TRUCK RAMP WITH 42" HIGH CONCRETE GUARD RAIL. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFO & DESIGN CRITERIA.
18. CONCRETE SCREEN WALL 14' HIGH. PAINTED
19. PUBLIC SIDEWALK. REFER TO CIVIL DRAWINGS
20. SECURE BICYCLE RACK. REFER TO LANDSCAPE PLANS FOR MODEL SPECIFICATION AND ADDITIONAL INFORMATION.
21. ONSITE BIORETENTION / WATER TREATMENT BASIN. REFER TO CIVIL DRAWINGS & LANDSCAPE DRAWINGS
22. TRASH ENCLOSURE
23. GUARD SHACK
24. TRASH COMPACTOR
25. PUMP HOUSE
26. MONUMENT SIGN
27. AFFIX THE INTERNATIONAL ACCESSIBILITY SYMBOL AT ALL ACCESSIBLE ENTRANCES
28. 12" HIGH CURB
29. 12'-0" HIGH STEEL TUBE FENCE
30. 12'-0" HIGH STEEL TUBE SWING GATE. PROVIDE KNOX PAD PER FIRE DEPT. STD.

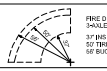
DEVELOPER / OWNER / APPLICANT

SARES REGIS GROUP
18902 BARDEEN AVE.
IRVINE, CA 92612
CONTACT: PATRICK RUSSELL
TELEPHONE: (949) 756-8999
EMAIL: PRUSSELL@SARESREGIS.COM

APPLICANT'S REPRESENTATIVE/ARCHITECT

HERDMAN RIERSON ARCHITECTURE & DESIGN, INC.
16201 SCIENTIFIC WAY
IRVINE, CA 92618
CONTACT: BRIDGET HERDMAN
PHONE: 714.389.2800
EMAIL: BRIDGET@HERDMANRIERSON.COM

FIRE DEPT. MIN. TURNING RADIUS



HERDMAN RIERSON architecture + design, inc.
16201 Scientific Way
Irvine, CA 92618
www.HerdmanRierson.com
714.389.2800
Info@HerdmanRierson.com

A15-2071
07.07.2016
SCH#
PARKING EXHIBIT

NORTH

CONCEPTUAL SITE PLAN
A1

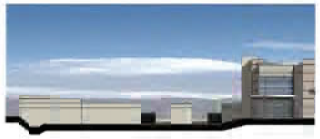
Attachment: Project Plans 8x11 [Revision 1] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING COMMISSION'S



A | SOUTH EXTERIOR ELEVATION | SCALE: 1" = 30'



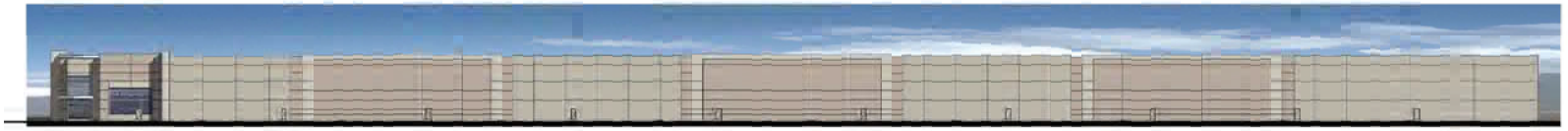
B.2 SCREEN WALL ELEV.



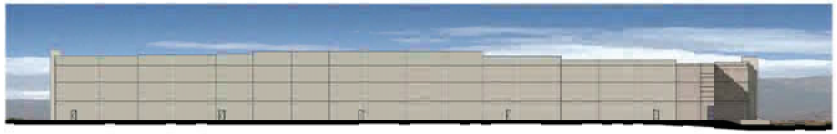
B.1 | SCREEN WALL ELEV. | SCALE: 1" = 30'



B | EAST EXTERIOR ELEVATION | SCALE: 1" = 30'



C | NORTH EXTERIOR ELEVATION | SCALE: 1" = 30'



D | WEST EXTERIOR ELEVATION | SCALE: 1" = 30'



1 | ENLARGED EAST EXTERIOR ELEVATION | SCALE: 1/8" = 1'-0"

DUNN EDWARDS EXTERIOR PAINT
COLOR: DEC 6060TWILIGHT TAUP

DUNN EDWARDS EXTERIOR PAINT
COLOR: DEC 6053 THICK FOG

DUNN EDWARDS EXTERIOR PAINT
COLOR: DEC 6059 CHOCOLATE MILK

DECORATIVE METAL CANOPY
WITH FINISH TO MATCH
CLEAR ANODIZED MULLIONS

STOREFRONT
MEDIUM BLUE REFLECTIVE GLAZING &
CLEAR ANODIZED MULLIONS

HERDMAN RIERSON
ARCHITECTURE + DESIGN

SARES-REGIS GROUP
MORENO VALLEY, CA
09.19.2016
HRAD JOB NO: A15-2071

SARES·REGIS Group

Indian Street Commerce Center

Initial Study



Prepared for
City of Moreno Valley

March 2016

applied planning inc

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INITIAL STUDY

for the

Indian Street Commerce Center Project

Prepared for:

City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552
Contact Person: Julia Descoteaux

Prepared by:

Applied Planning, Inc.
5817 Pine Avenue, Suite A
Chino Hills, CA 91709

March 2016

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1.0 INTRODUCTION

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1.0 INTRODUCTION

1.1 DOCUMENT PURPOSE AND SCOPE

This Initial Study addresses potential environmental impacts associated with construction and operation of the proposed Indian Street Commerce Center Project. In summary, the Project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. As currently proposed, 357,080 square feet, or approximately 80 percent of the Project building area would be allocated for distribution warehouse uses; the remaining 89,270 square feet, or approximately 20 percent of the Project building area would be assigned to manufacturing uses.

This IS was prepared pursuant to Section 15063 of the California Environmental Quality Act (CEQA) Guidelines. Although this IS was prepared with consultant support, all analysis, conclusions, findings and determinations presented in the IS fully represent the independent judgment and position of the City of Moreno Valley, acting as Lead Agency under CEQA. In accordance with the provisions of CEQA and the State and local CEQA Guidelines, as the Lead Agency, the City of Moreno Valley is solely responsible for approval of the Project. As part of the decision-making process, the City is required to review and consider the Project's potential environmental effects.

This Initial Study is an informational document, providing the City of Moreno Valley decision-makers, other public agencies, and the public with an objective assessment of the potential environmental impacts that could result from the Project.

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1.2 DISPOSITION OF THIS DOCUMENT

This IS has been prepared to determine the appropriate scope and focus of environmental analysis for the Project. Based on the findings and conclusions of this IS, potential environmental impacts of the Project will be evaluated within an Environmental Impact Report (EIR). The IS and accompanying Notice of Preparation (NOP) for the EIR will be available for review for a total of 30 days, and can be reviewed at the City of Moreno Valley, located at 14177 Frederick Street, Moreno Valley, CA 92552.

The public is encouraged to contact the City of Moreno Valley for information regarding the Project and related CEQA processes.

1.3 DOCUMENT ORGANIZATION

This IS includes the following sections:

Introduction: This Section (1.0) describes the CEQA context and IS format for the Project, and provides a summary of the findings of the IS.

Project Description: This Section (2.0) describes the Project and its objectives.

Environmental Evaluation: This Section (3.0) provides background information regarding the Project and Lead Agency, and presents responses to each question on the CEQA Initial Study Checklist regarding the possible environmental impacts of the Project. The potential environmental impacts are derived from Appendix G of the State CEQA Guidelines. Answers provided in the checklist are substantiated qualitatively in all instances, and quantitatively where feasible and appropriate.

Determination: This Section (4.0) summarizes the results of the Initial Study, and presents the determination regarding the appropriate environmental document for the Project.

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Source information cited within this Initial Study is available through, or by contacting, the City of Moreno Valley Planning Department.

1.4 POTENTIALLY SIGNIFICANT ENVIRONMENTAL EFFECTS

The analysis presented in this IS indicates that the Project may result in or cause potentially significant effects related to:

- Air Quality;
- Biological Resources;
- Cultural Resources/Tribal Cultural Resources;
- Greenhouse Gas (GHG) Emissions/Global Climate Change;
- Hazards and Hazardous Materials;
- Hydrology/Water Quality;
- Noise; and
- Transportation/Traffic.

Consistent with the conclusion and findings of this Initial Study, an EIR will be prepared for the Project. At a minimum, the EIR will evaluate the Project's potential environmental impacts under the topical areas identified above. Additional issues or concerns that may be raised pursuant to the EIR NOP process and/or scoping meeting(s) conducted for the Project will also be evaluated and addressed in the EIR.

1.5 EFFECTS NOT FOUND TO BE POTENTIALLY SIGNIFICANT

While it has been determined that an EIR will be required, one of the additional purposes of an Initial Study is to focus an "EIR on the effects determined to be significant, identifying the effects determined not to be significant, (and) explaining the reasons for determining that potentially significant effects would not be significant." (State *CEQA Guidelines*, Section 15063(c)). Therefore, one of the key purposes of this Initial Study is to focus the EIR's analysis on impacts that are potentially significant while eliminating potential impacts that are clearly less than significant. The following

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list identifies the environmental issues that, pursuant to the findings of this Initial Study, have been determined to pose no potentially significant environmental impacts.

- Aesthetics;
- Agriculture and Forest Resources;
- Geology and Soils;
- Land Use and Planning;
- Mineral Resources;
- Population and Housing;
- Public Services;
- Recreation; and
- Utilities and Service Systems.

These topics are not expected to be carried forward for further evaluation within the Draft EIR. However, as noted in the preceding Section 1.4, based on additional information or concerns that may be raised pursuant to the EIR NOP process and/or scoping meeting(s) conducted for the Project, additional issues may be evaluated and addressed in the EIR.

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2.0 PROJECT DESCRIPTION

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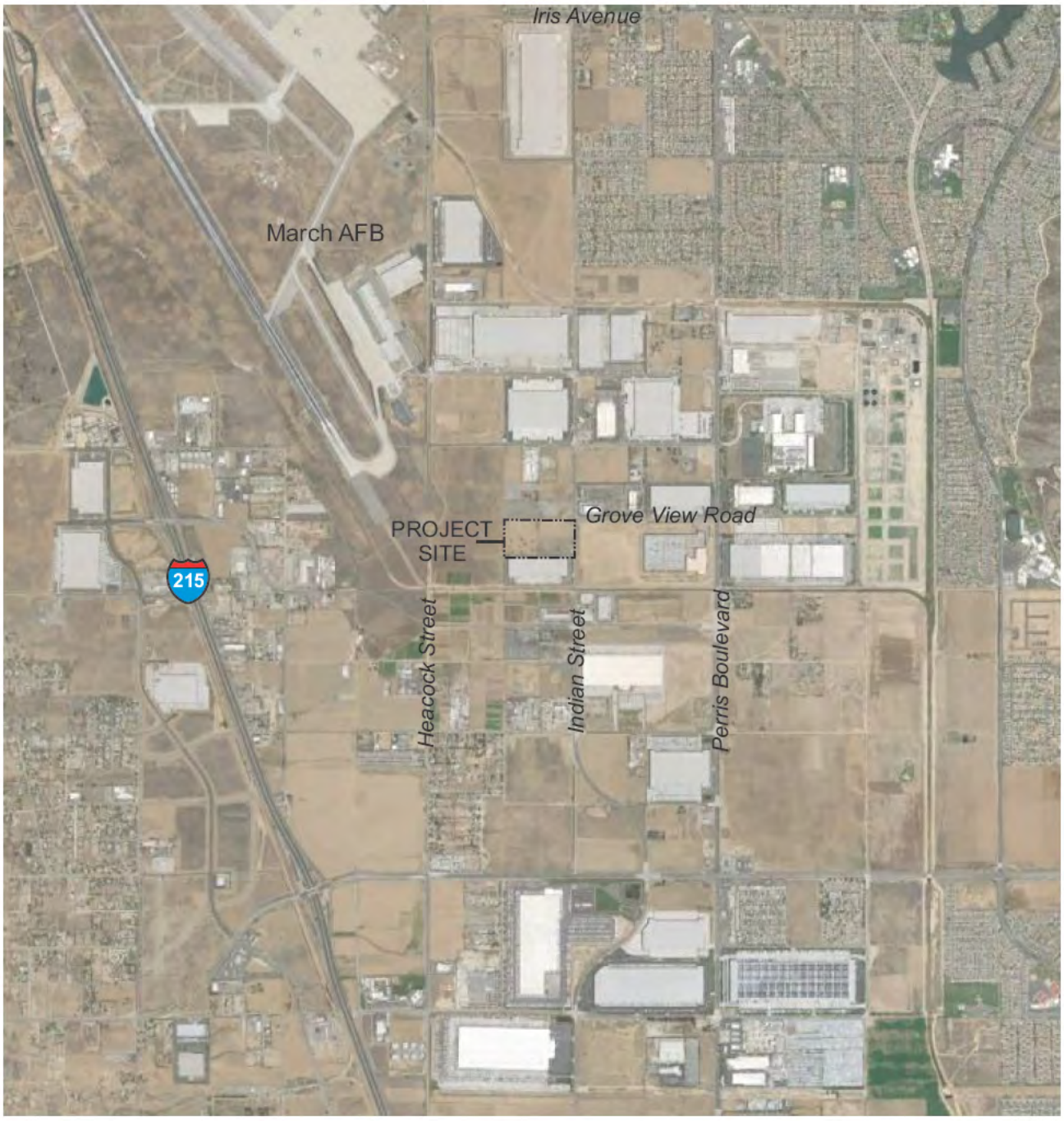
2.0 PROJECT DESCRIPTION

2.1 OVERVIEW

The proposed Indian Street Commerce Center Project (Project), including all facilities proposed within the Project site, on- and off-site supporting improvements, and associated discretionary actions, is the Project considered in this EIR. In summary, the Project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. As currently proposed, 357,080 square feet, or approximately 80 percent of the Project building area would be allocated for distribution warehouse uses; the remaining 89,270 square feet, or approximately 20 percent of the Project building area would be assigned to manufacturing. Supporting office uses would also be incorporated in the building design.

2.2 PROJECT LOCATION AND BOUNDARIES

The Project site is located in the southern portion of the City of Moreno Valley, in western Riverside County. The Project site is located approximately one-half mile westerly of Perris Boulevard and is bounded by Indian Street to the east. Grove View Road (alignment) comprises the Project site northerly boundary. March Air Force Base is located approximately one-third mile westerly of the Project site. Please refer to Figure 2.2-1, *Project Location*.



Source: Google Earth; Applied Planning, Inc.

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Figure 2.2-1
Project Location

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2.3 EXISTING LAND USES AND LAND USE DESIGNATIONS

The following discussions summarize existing land use conditions in the Project vicinity and provide general context for the Project.

2.3.1 Existing Land Uses

Project site and vicinity land uses are denoted at Figure 2.3-1 and area land uses are described below. Representative photos of the Project site are presented at Figures 2.3-2 through 2.3-3.

2.3.1.1 Project Site Land Use

The Project site is a roughly rectangular-shaped parcel, totaling 19.64 acres. The Project site address is 17845 Indian Street, Moreno Valley; the site comprises current Assessor's Parcel Numbers (APNs) 316-210-019; 316-210-020; 316-210-057; and 316-210-077. The Project site is essentially level, evidencing elevations generally ranging from 1,464 feet above mean sea level to approximately 1,468 feet MSL. The subject site is vacant and undeveloped and is devoid of notable topographic features or substantial terrain differentials.

The Project site is heavily disturbed by general human activities including routine weed abatement. The subject site is generally characterized as a disturbed field dominated by tumbleweed. A small number of ornamental pines and Chinaberry trees exist in the southwesterly portion of the Project site. Disturbance of the subject site and surrounding properties has reduced the suitability of any remaining habitat to support sensitive plant and wildlife species. Based on habitat requirements for specific species and the availability and quality of habitats needed by each sensitive plant species, it was determined that the Project site does not provide suitable habitat that would support any of the California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS), or Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) listed plant species known to occur in the general vicinity of the Project site (Project Biological Report, pp. 2 - 3).

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Source: Google Earth; Applied Planning, Inc.

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Figure 2.3-1
Existing Land Uses

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Photograph 1: From the southwest corner of the project site, looking west.



Photograph 3: From the northern boundary of the project site looking south.



Photograph 2: Looking north at the eastern boundary of the project site.



Photograph 4: Looking southwest at the middle portion of the project site. The ornamental pines and Chinaberry trees are in the background.

Source: Michael Baker, International; Applied Planning, Inc.

applied planning inc

Figure 2.3-2
Site Photos

Attachment: Appendix A - IS, NOP, NOP Responses [Revision 2] (2416 : A PUBLIC HEARING FOR AN



Photograph 5: From the western border of the project site looking east.



Photograph 6: Looking east at the ornamental pines located in the southwestern portion of the project site.



Photograph 7: From the southern border of the project site looking northeast.



Photograph 8: From the southeast corner of the project site looking west.

Source: Michael Baker, International; Applied Planning, Inc.

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Figure 2.3-3
Site Photos

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2.3.1.2 Vicinity Land Uses

Northerly adjacent to the Project site, properties are currently vacant or evidence paved parking and storage areas. Easterly of the Project site across Indian Street, properties are vacant and undeveloped. Southerly adjacent to the Project site are distribution warehouse uses similar to those proposed by the Project. Properties westerly adjacent to the Project site are vacant and undeveloped.

2.3.2 Existing Land Use Designations

2.3.2.1 General Plan Land Use

Existing General Plan Land Use and Zoning designations for the Project site and vicinity properties are depicted at Figures 2.3-4 and 2.3-5, respectively. The City of Moreno Valley General Plan Land Use Map designates the Project site as "Business Park/Light Industrial." As described in the General Plan, "[t]he primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio [FAR] of 1.00 and the average floor area ratio should be significantly less . . ." (City of Moreno Valley General Plan, p. 9-7). Distribution warehouse uses implemented under the Project would total a maximum of approximately 446,350 square feet on approximately 19.64 acres, yielding a FAR of approximately 0.51. Properties adjacent to the Project site on all sides are also designated Business Park/Light Industrial. Approximately 500 feet westerly of the Project site properties are designated "Open Space," recognizing the Clear Zone (CZ) area established at the southerly terminus of the March Air Force Base runway(s).

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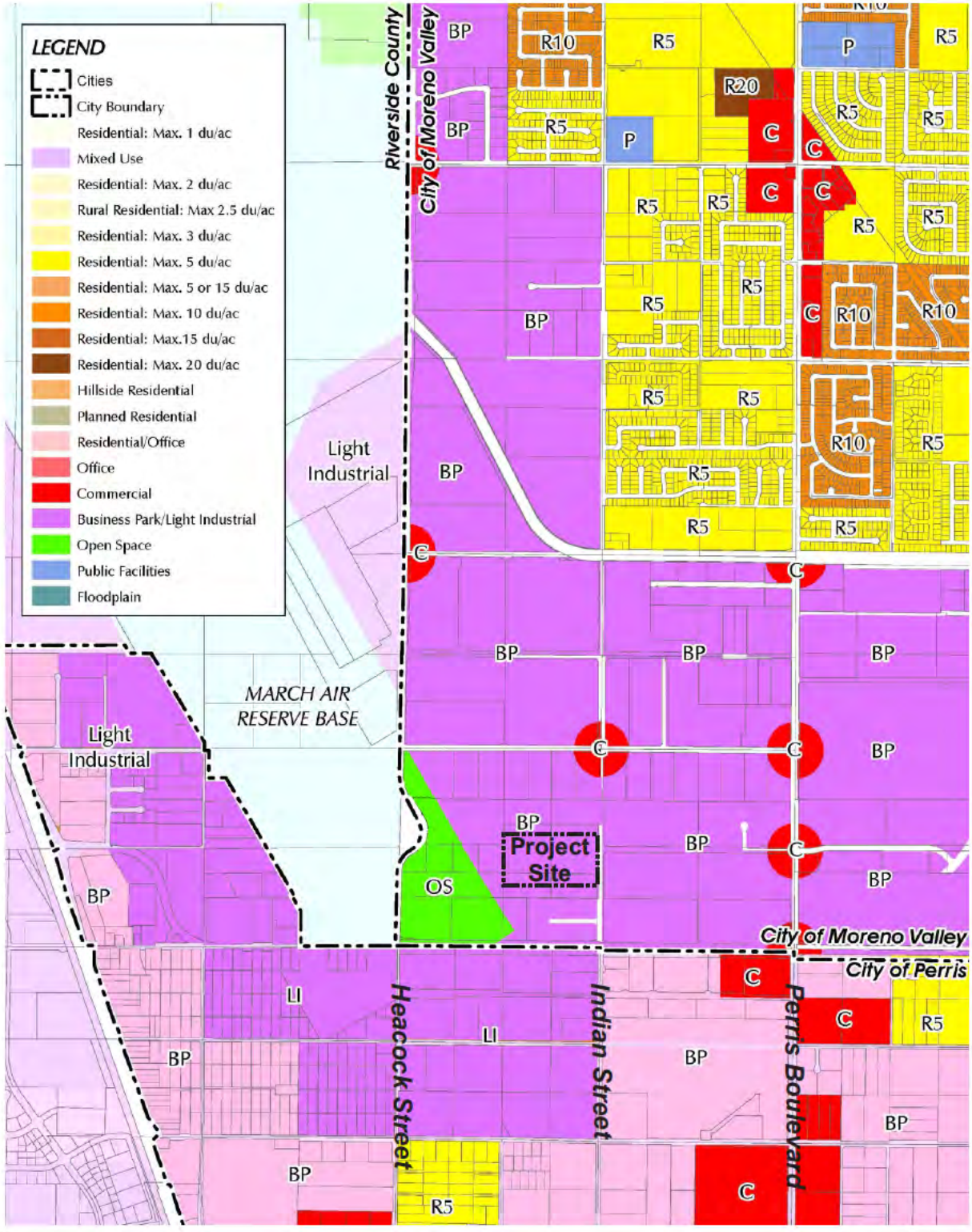

Source: T&B Planning; RCTLMA; Applied Planning, Inc.

Figure 2.3-4
General Plan Land Use Designations

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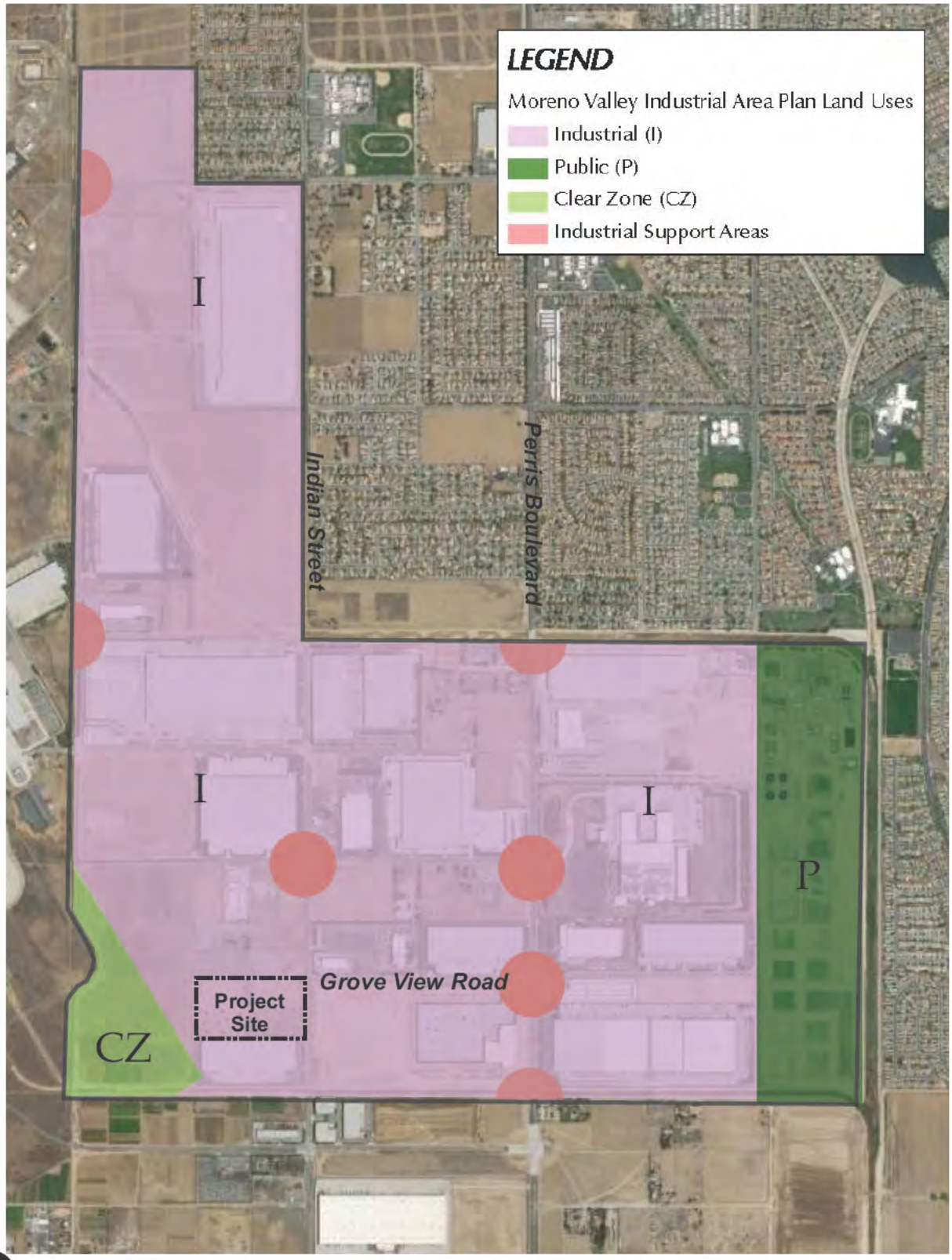

Source: T&B Planning; RCTLMA; Google Earth; Applied Planning, Inc.

Figure 2.3-5
Existing Zoning Designations

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2.3.2.2 Zoning

Current zoning of the Project site and surrounding properties is established under Specific Plan 208 (SP 208), Moreno Valley Industrial Area Plan (MVIAP) (formerly the Oleander Specific Plan). SP 208 land uses, including the Project site, are designated "Industrial." Development concepts and uses proposed by the Project are permitted or conditionally permitted under the site's current SP 208 Industrial zoning designation.

2.4 PROJECT ELEMENTS

2.4.1 Site Preparation

The Project area would be grubbed, rough-graded, and fine-graded in preparation of building construction. Any debris generated during site preparation activities would be disposed of and/or recycled consistent with the City's Source Reduction and Recycling Element (SRRE). Existing grades within the Project site would be modified to establish suitable building pads and to facilitate site drainage.

2.4.2 Project Development Concept

In summary, the Project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. As currently proposed, 357,080 square feet, or approximately 80 percent of the Project building area would be allocated for distribution warehouse uses; the remaining 89,270 square feet, or approximately 20 percent of the Project building area would be assigned to manufacturing uses. Supporting office uses would also be incorporated in the building design. Approximately 53 loading dock doors would be provided along the warehouse's southerly face.

The Project Site Plan Concept is presented at Figure 2.4-1. Final designs of the Project building will be realized consistent with industrial design requirements and standards of the encompassing Moreno Valley Industrial Area Plan and Municipal Code Section 9.05.040, "Industrial Site Development Standards."

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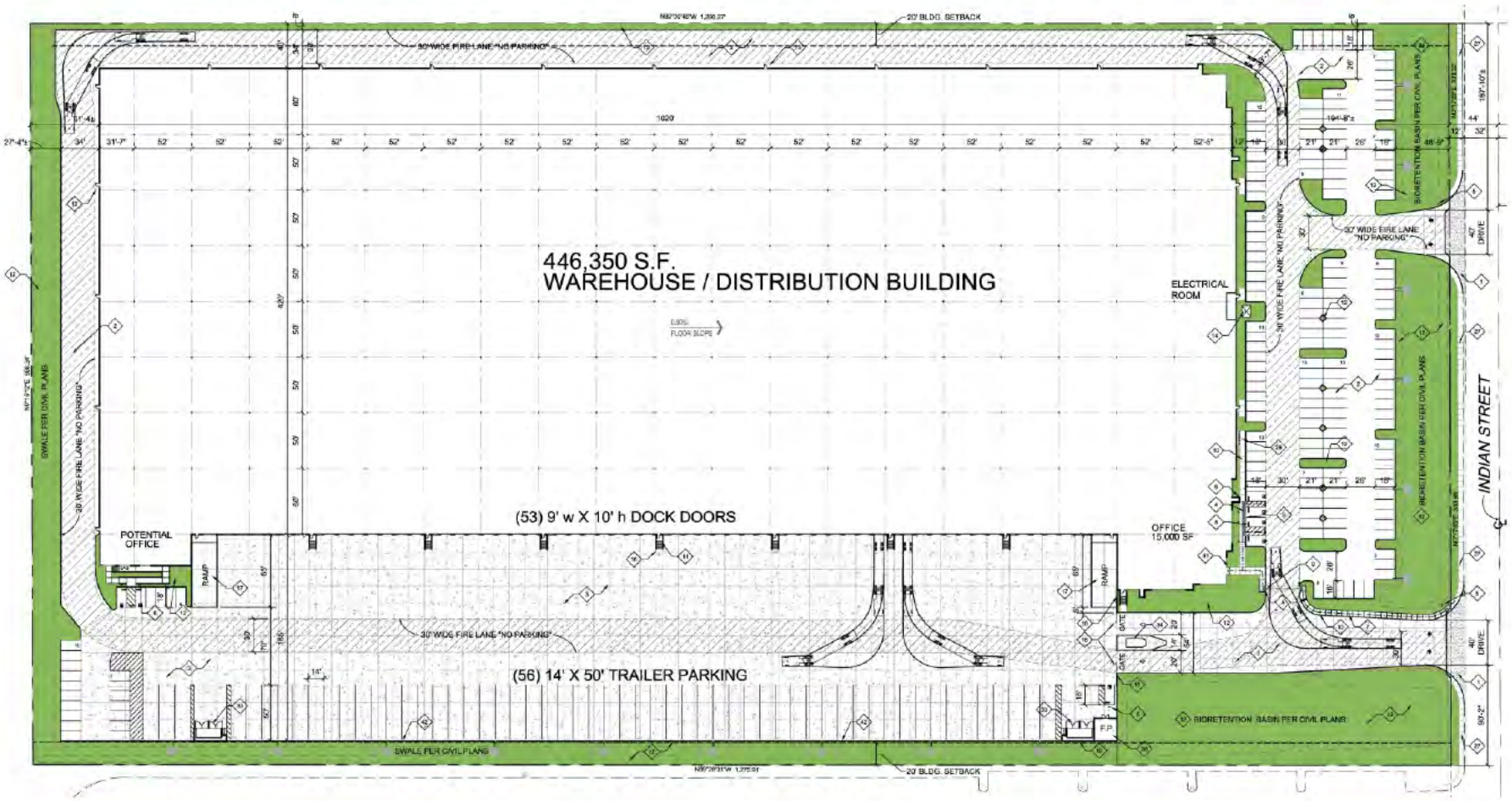

N

NOT TO SCALE

Source: Source: Herdman Rierson Architecture + Design (August 2015); Applied Planning, Inc.Applied Planning, Inc.

appliedplanning inc

Figure 2.4-1
Site Plan

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2.4.3 Access and Circulation

Under the Project Site Plan Concept, primary access to the Project would be provided by two driveways onto existing Indian Street along the site's easterly boundary. Both driveways would be STOP-controlled, and would allow left- and right- turn movements. The Project would also construct all site-adjacent roadway improvements as summarized below, and/or as otherwise required pursuant to the Project Conditions of Approval.

General:

- Roadways adjacent to the Project, site access points and site-adjacent intersections would be designed and constructed consistent with City of Moreno Valley General Plan Circulation Element roadway classifications and respective cross-sections.
- On-site traffic signing and striping plans would be submitted concurrent with submittal of Project construction plans; and would be subject to City review and approval.
- Sight distance at each Project access point would conform to Caltrans and City of Moreno Valley sight distance standards; and would be subject to City review and approval.

Indian Street:

- Construct Indian Street from the northern Project boundary to the southern Project boundary at its ultimate half-section width as a Minor Arterial (88-foot right-of-way), in compliance with applicable City of Moreno Valley standards.

2.4.3.1 Construction Traffic Management Plan

Temporary and short-term traffic detours and traffic disruptions could result during Project construction activities including implementation of access and circulation improvements noted above. Accordingly, the Project Applicant would be responsible for the preparation and submittal of a construction area traffic management plan (Plan)

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to be reviewed and approved by the City Public Works Department. Typical elements and information incorporated in the Plan would include but would not be limited to:

- **Name of on-site construction superintendent and contact phone number.**

- **Identification of Construction Contract Responsibilities** - For example for excavation and grading activities, describe the approximate depth of excavation, and quantity of soil import/export (if any).

- **Identification and Description of Truck Routes** - to include the number of trucks and their staging location(s) (if any).

- **Identification and Description Material Storage Locations (if any).**

- **Location and Description of Construction Trailer (if any).**

- **Identification and Description of Traffic Controls** - Traffic controls shall be provided per the Manual of Uniform Traffic Control Devices (MUTCD) if the occupation or closure of any traffic lanes, parking lanes, parkways or any other public right-of way is required. If the right-of-way occupation requires configurations or controls not identified in the MUTCD, a separate traffic control plan must be submitted to the City for review and approval. All right-of-way encroachments would require permitting through the City.

- **Identification and Description of Parking** - Estimate the number of workers and identify parking areas for their vehicles.

- **Identification and Description of Maintenance Measures** - Identify and describe measures taken to ensure that the work site and public right-of-way would be maintained (including dust control).

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The Plan must be reviewed and approved by the City prior to the issuance of the building permit. The Plan and its requirements would also be required to be provided to all contractors as one component of building plan/contract document packages.

2.4.4 Landscape/Hardscape

The Project would incorporate perimeter and interior landscaping and streetscape elements, acting to generally enhance the Project's visual qualities. Proposed landscaping includes varied trees, shrubs, and ground cover. Design accents, including all landscape/hardscape designs and features are subject to City review and approval. Landscaping will also be provided within and adjacent to the Project retention/detention areas acting to screen and enhance these areas as well as provide treatment for stormwater runoff from the Project site. Final design of the Project's landscaping and hardscape are subject to the City's Design Review processes.

2.4.5 Walls/Screening

An approximately 50-foot wide landscape setback along Indian Street would be provided, acting to screen Project parking areas and generally enhance public views of the Project site. Additionally, a minimum 20-foot landscape setback/edge treatment along the Project's southerly boundary, and an approximately 25-foot wide landscape setback/edge treatment along the Project site westerly boundary would be provided, acting to further screen and enhance views of the Project site. Landscape setbacks and edge treatments would conform to applicable provisions of the MVIAP, and requirements stipulated at Municipal Code Section 9.05.040, "Industrial Site Development Standards."

Internal site features and appurtenances including but not limited to loading dock areas, trash collection areas, and utility pedestals/surface utility boxes, would also be screened.

All walls/screening elements would be designed and implemented consistent with applicable provisions of the encompassing Moreno Valley Industrial Area Plan,

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Municipal Code Section 9.08.150, "Screening Requirements," and Section 9.10.160, "Outdoor Storage, Trash Areas, and Service Areas."

Project screening elements, including all screening walls, would be architecturally compatible with other Project facilities. Final design of all proposed screening elements are subject to City Design Review and Approval processes.

2.4.6 Lighting

All Project lighting would be designed and implemented in a manner that precludes potential adverse effects of light overspill consistent with requirements of the MVIAP and as identified at City Municipal Code Section 9.10.110, "Light and Glare." Municipal Code Section 9.16.280, "Applications for Lighting, General Requirements," subsection A. states:

> Lighting serves both safety and aesthetic purposes, illuminating dark areas and providing for highlights and accents. Effective lighting would highlight building features, add emphasis to important spaces and create an ambience of vitality and security. The intent of these guidelines is to encourage effective and innovative lighting to be incorporated as an integral component of a project.

Potential light overspill, is addressed through Municipal Code Section 9.10.110, "Performance Standards, Light and Glare," and would be minimized through limited use of freestanding lighting and use of fixed and shielded directional wall-mounted fixtures. The Project lies within 45 miles of the Mt. Palomar Observatory, and would comply with applicable provisions of County of Riverside Ordinance 655 which addresses protection of the night sky from light pollution that would interfere with astronomical observations.

Final design of the Project lighting plan including locations, heights, and performance standards for all Project lighting features and fixtures is subject to the City's Design

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Review processes. Detailed lighting plans would be prepared in conjunction with building plan submittals, and would be subject to and City Design Review and Approval processes prior to issuance of building permits.

2.4.7 Signs

Signs for the Project would be designed and implemented consistent with applicable provisions of the MVIAP and Municipal Code Section 9.12, "Sign Regulations." The Project Sign Program would provide detailed guidelines and requirements for facility and informational signs and other graphic displays within the Project area. The Sign Program would afford prospective tenants with the maximum possible exposure in a manner that is consistent with the encompassing Project design concept, and responsive to community visual and aesthetic sensibilities.

2.4.8 Parking

The City of Moreno Valley Municipal Code specifies a parking ratio of one parking space for each 1,000 square feet of gross floor area in a warehouse/distribution building for the first 20,000 square feet; one additional space for each 2,000 square feet of floor area within the second 20,000 square feet; and one additional space for each 4,000 square feet of floor area for areas in excess of the initial 40,000 square feet. Additionally, one parking space is required for every 250 square feet of office uses. In total, pursuant to City parking requirements, the Project would be required to provide an estimated 185 parking spaces. The Preliminary Site Plan Concept provides 188 parking spaces (181 standard spaces, 7 ADA spaces); and 56 additional trailer spaces. No off-site parking is proposed, nor would it be required. Final design of parking areas would be as reviewed and approved by the City through the City's Design Review processes.

2.4.9 Infrastructure/Utilities

The Project site is served by existing mainline utilities services. Primary utilities services are described below.

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2.4.9.1 Water/Sewer Services

Water and sewer services would be provided to the Project by the Eastern Municipal Water District (EMWD). Water service extensions to the Project site from existing facilities located in the abutting Indian Street right-of-way would be realized during improvement of the surrounding street system. Sanitary sewer services to the Project would similarly be provided by connection to the existing sewer main located within Indian Street. Alignment of service lines, and connection to existing services would be as required by EMWD. Wastewater would be conveyed from the Project for treatment at the 300-acre Perris Valley Regional Water Reclamation Facility (PVRWRF).

2.4.9.2 Storm Water Management Systems

The Project stormwater management systems comprehensively include proposed drainage improvements, and facilities and programs which act to control and treat stormwater pollutants. Under the preliminary Project Storm Water Management System concept, stormwater runoff from the developed Project site would be directed to on-site bio-retention basins and released in a controlled manner to the existing storm drains located within the Grove View Road and/or Indian Street rights-of-way.

The Project would implement a Storm Water Pollution Prevention Plan (SWPPP), and Water Quality Management Plan (WQMP) consistent with City requirements. In this manner, the Project would also comply with requirements of the City's National Pollutant Discharge Elimination System (NPDES) Permit and other water quality requirements or storm water management programs specified by the Regional Water Quality Control Board (RWQCB). In combination, implementation of the Project SWPPP, WQMP, and compliance with NPDES Permit and RWQCB requirements acts to protect City and regional water quality by preventing or minimizing potential pollutant discharges to the watershed.

2.4.9.3 Solid Waste Management

It is anticipated that Project-generated solid waste would be conveyed by Waste Management of the Inland Empire, to one of three nearby landfills. Solid waste

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generated by the Project, and related potential effects on landfill capacities, are minimized through compliance with requirements of the City's Source Reduction and Recycling Element (SRRE). In this regard, City SRRE programs and policies provide for a 50 percent target diversion rate for solid waste, thereby reducing solid waste conveyance and disposal demands.

2.4.9.4 Electricity

Electrical service within the City is provided by Southern California Edison (SCE) and the Moreno Valley Electric Utility. The Moreno Valley Electric Utility (MVU) would provide service to the Project site. New lines installed by the Project would be placed underground. Alignment of service lines and connection to existing services would be as required by the Moreno Valley Electric Utility. Any necessary surface-mounted equipment, such as transformers, meters, service cabinets, and the like, would be screened and would conform to building setback requirements.

It is further noted that to allow for, and facilitate Project construction activities, provision of temporary MVU electrical services improvements would be required. The scope of such temporary improvements are considered to be consistent with, and reflected within the total scope of development proposed by the Project. Similarly, impacts resulting from the provision of temporary MVU services would not be substantively different from, or greater than, impacts resulting from development of the Project in total.

2.4.9.5 Natural Gas

Natural gas service would be provided by the Gas Company. Existing service lines would be extended to the Project uses. Alignment of service lines and connection to existing services would be as required by the Gas Company.

2.4.9.6 Communications Services

Communications services, including wired and wireless telephone and internet services are available through numerous private providers and would be provided on an as-

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needed basis. As with electrical service lines, all existing and proposed wires, conductors, conduits, raceways, and similar communications improvements within the Project area would be installed underground. Any necessary surface-mounted equipment, e.g., terminal boxes, transformers, meters, service cabinets, etc., would be screened and would conform to building setback requirements.

2.4.10 Energy Efficiency/Sustainability

Energy-saving and sustainable design features and operational programs would be incorporated into all facilities developed pursuant to the Project. Notably, the Project in total would provide sustainable design features necessary to achieve a "Certified" rating under the United States Green Building Council's Leadership in Energy & Environmental Design (LEED) programs. The Project also incorporates and expresses the following design features and attributes promoting energy efficiency and sustainability.

- The Project design concept allows for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provider that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City.

- All on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines.

- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:

    - Sidewalks along the Project site's Indian Street frontage would be constructed as part of the Project, and would connect to existing and planned sidewalks to

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the north and south of the Project site. Facilitating pedestrian access encourages people to walk instead of drive. The Project would not impose barriers to pedestrian access and interconnectivity.

- Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery vendor truck trips.

- To reduce water demands and associated energy use, development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy).[1] Development proposals within the Project site would also be required to implement the following:

  - Landscaping palette emphasizing drought tolerant plants consistent with the MVIAP and/or City of Moreno Valley requirements;

  - Use of water-efficient irrigation techniques consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;

  - U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and other plumbing fixtures.

Additionally, the Project in total would surpass, by a minimum of 5%, incumbent performance standards established under the Building Energy Efficiency Standards

[1] Reduction of 20% indoor water usage is consistent with the current CalGreen Code performance standards for residential and non-residential land uses. Per CalGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

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contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards).

2.5 PROJECT OPENING YEAR

The proposed Indian Street Commerce Center Project in total would be developed in a manner responsive to market conditions and in concert with availability of necessary infrastructure and services. The anticipated Project Opening Year is 2018.[2]

2.6 PROJECT OBJECTIVES

The primary goal of the Project is to develop high quality light industrial/business park uses accommodating a variety of prospective tenants. Complementary Project Objectives include the following:

- Implement the City's General Plan through development that is consistent with the General Plan Community Development Element and applicable General Plan Goals, Objectives, Policies and Programs.
- Implement the Moreno Valley Industrial Area Plan through development that is consistent with the Area Plan land uses and development concepts, and in total supports the Area Plan Vision;
- Provide adequate roadway and wet and dry utility infrastructure to serve the Project;
- Provide warehouse uses that are compatible with adjacent land uses;
- Provide an attractive, efficient and safe environment for warehouse uses that is cognizant of natural and man-made conditions;
- Provide warehouse uses responsive to current and anticipated market demands;
- Establish new development that would increase locally available employment opportunities; and would further the City's near-term and long-range fiscal goals and objectives.

[2] The anticipated Project Opening Year is 2018. Notwithstanding, consistent with City Traffic Impact Analysis (TIA) methodology requirements establishing a likely maximum cumulative traffic impact scenario, the Project opening year is assumed to occur a minimum of 5 years from existing (2015) conditions. Accordingly, the Project TIA reflects an assumed 2020 "opening year" condition.

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2.7 PROJECT DISCRETIONARY ACTIONS, PERMITS, CONSULTATIONS

Discretionary actions, permits and related consultation(s) necessary to approve and implement the Project include, but are not limited to, the following.

2.7.1 Lead Agency Discretionary Actions and Permits

- **Certification of the EIR.** The proposed development is a Project under CEQA, and may result in significant environmental impacts. Lead Agency certification of the Project EIR is required;

- **Parcel Map Approval** to consolidate and reconfigure existing parcels defining the Project site, and to provide necessary easements and dedications;

- **Plot Plan Review and Approval** to include Project design and architectural reviews;

- **Construction, grading, and encroachment permits** allowing implementation of the Project facilities within City of Moreno Valley jurisdictional areas; and

- **Vacation and/or dedication of public rights-of-way and easements** as elements of the proposed parcel map, or independent of the map. Rights-of-way and easements would provide public access, and ensure appropriate alignment of and access to infrastructure and utilities.

2.7.2 Other Consultation and Permits

CEQA Guidelines Section 15124 also states that the EIR should, to the extent known, include a list of all the agencies expected to use the EIR in their decision-making (Responsible Agencies, Trustee Agencies), and a list of other permits or approvals required to implement the Project. Based on the current Project design concept, anticipated permits necessary to realize the proposal would likely include, but are not limited to, the following:

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- Tribal Resources consultation with requesting Tribes as provided for under *AB 52, Gatto. Native Americans: California Environmental Quality Act*;

- Permitting may be required by/through the Regional Water Quality Control Board (RWQCB) pursuant to requirements of the City's National Pollutant Discharge Elimination System (NPDES) Permit;

- Permitting may be required by/through the South Coast Air Quality Management District (SCAQMD) for certain equipment or land uses that may be implemented within the Project area; and

- Various construction, grading, and encroachment permits allowing implementation of the Project facilities.

2.7.3 City Development Applications

In support of requested discretionary approvals and permits noted above, development applications submitted by the Project Applicant include:

- **Plot Plan** approval for the Project facilities; and

- **Tentative Parcel Map** approval to combine and reconfigure existing parcels comprising the Project site.

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3.0 ENVIRONMENTAL EVALUATION

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3.0 ENVIRONMENTAL EVALUATION

3.1 PROJECT TITLE

Indian Street Commerce Center Project

3.2 LEAD AGENCY NAME AND ADDRESS

The City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552
Contact Person: Ms. Julia Descoteaux

3.3 PROJECT APPLICANT

Sares Regis Group
18802 Bardeen Avenue
Irvine, CA 92612
(949) 756-5959
Contact: Patrick Russell, Senior Vice President, Commercial Development

3.4 PROJECT LOCATION

The Project site is located in the southern portion of the City of Moreno Valley, in western Riverside County. The Project site is located approximately one-half mile westerly of Perris Boulevard and is bounded by Indian Street to the east. Grove View Road (alignment) comprises the Project site northerly boundary. March Air Force Base is located approximately one-third mile westerly of the Project site. Please refer to Initial Study, Figure 2.2-1, *Project Location*.

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3.5 GENERAL PLAN AND ZONING DESIGNATIONS

The City of Moreno Valley General Plan Land Use Map designates the Project site as *Business Park/Light Industrial*. Current zoning of the Project site and surrounding properties is established by Specific Plan 208 (SP 208), Moreno Valley Industrial Area Plan (MVIAP) (formerly the Oleander Specific Plan). SP 208 land uses, including the Project site, are designated *Industrial*. Development concepts and uses proposed by the Project allowed and anticipated under the site's General Plan *Business Park/Light Industrial* land use designation; and are permitted or conditionally permitted under the site's current SP 208 *Industrial* zoning designation. No change in land use designation is required, or proposed.

3.6 EXPLANATION OF CHECKLIST CATEGORIES

CEQA suggests format and content for environmental analyses, including Initial Study Checklists such as presented here, to assist in evaluation of a project's potential environmental effects. The Checklist presented in this Section conforms to the suggested Checklist format and presentation of information identified at *CEQA Guidelines*, Appendix G.

3.6.1 EXPLANATION OF CHECKLIST CATEGORIES

Potential environmental effects of the Project are classified and described within the Checklist under the following general headings:

"No Impact" applies where the impact does not apply, or this is little of no possibility of the impact to occur. For example, if the project site is not located in a fault rupture zone, then the item asking whether the project would result in or expose people to potential impacts involving fault rupture would be marked as "No Impact."

"Less-Than-Significant Impact" applies where the impact could occur, but the magnitude of the impact is considered insignificant or negligible. For example, a development that would increase traffic volumes at area intersections, but would not

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cause levels of service or other threshold measures to be exceeded, would be considered to have a less-than-significant impact.

"Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less-Than-Significant Impact." Incorporated mitigation measures should be outlined within the Checklist and a discussion should be provided that explains how the measures reduce the impact to a less-than-significant level. This designation is appropriate for a Mitigated Negative Declaration, where all potentially significant issues have been analyzed and mitigation measures have been recommended that reduces all impacts to levels that are less-than-significant.

"Potentially Significant Impact" applies where the project has the potential to cause a significant and unmitigable environmental impact. If there are one or more items marked as "Potentially Significant Impact," an environmental impact report (EIR) is required.

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3.7 INITIAL STUDY CHECKLIST AND SUBSTANTIATION

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
I. AESTHETICS. Would the proposal:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to trees, rocks, outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare, which would adversely affect the day or nighttime views in the area?	☐	☐	☒	☐

Substantiation:

a–b) *Less-Than-Significant Impact*. The Project site is located in an urbanized area. Implementation of the Project would not affect scenic vistas or scenic resources within the vicinity of a designated scenic highway. The closest designated scenic highways are State Route 60 and Moreno Beach Drive; each located approximately 5 miles from the Project site. The Project site is vacant, and therefore no historic buildings would be directly affected by Project implementation. Nor does the Project propose or require uses or facilities that would affect any off-site historic buildings. Based on the preceding discussion, the Project's potential to result in impacts on scenic vistas or scenic resources, including historic buildings, is considered less-than-significant.

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c) *Less-Than-Significant Impact*. The Project site is heavily disturbed by general human activities and routine weed abatement. The subject site is generally characterized as a disturbed field dominated by tumbleweed. A small number of ornamental pines and Chinaberry trees exist in the southwesterly portion of the Project site.

Transition of the site from its current disturbed and vacant state to a site developed with uses proposed by the Project would tend to enhance the visual character and quality of the site and vicinity through the introduction of contemporary light industrial structures and associated landscape/streetscape elements.

Preliminary concepts for the Project propose contemporary light industrial architectural designs representing an appropriate and compatible continuation of light industrial uses constructed within the MVIAP. Final design concepts for the Project would conform to the applicable MVIAP design guidelines and development standards; and in instances where the MVIAP is silent, the Project would conform to applicable City Municipal Code (zoning) design guidelines and development standards. The Project would also implement additional or alternative landscape elements and architectural solutions that may be specified by City staff and incorporated as Project Conditions of Approval (COA). All Project designs would be subject to City review and approval.

Based on the preceding discussion, the potential for the Project to substantially degrade the existing visual character and quality of the site and its surroundings is considered less-than-significant.

d) *Less-Than-Significant Impact*. Illumination of Project entrances, walkways, and parking areas would introduce new sources of light to the site and vicinity. Light sources within the Project site would likely include building-mounted, wall-mounted, and pole-mounted light fixtures; and illuminated signs. All Project lighting would comply with MVIAP and City requirements, and would be designed and implemented in a manner that ensures adequate site illumination;

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minimizes or precludes light overspill and glare; and that would not otherwise result in potentially adverse impacts. Compliance with MVIAP and City standards would minimize any potential aesthetic impacts of Project light and glare to levels that would be less-than-significant.

It is also recognized that the Project is located within one-third mile of March Air Reserve Base/Inland Port Airport (MARB/IPA). Certain facilities proposed by the Project, e.g., roof-mounted photo-voltaic (PV) solar panels could result in glare impacts that could affect MARB/IPA operations. Hazards that could result from Project light and glare will be addressed under the EIR topical discussion of *Hazards and Hazardous Materials*. Mitigation measures will be proposed for any impacts determined to be potentially significant.

Sources: Moreno Valley General Plan; Moreno Valley Industrial Area Plan; Moreno Valley Municipal Code Section 9.08.100 *Lighting;* Preliminary Plans for Indian Street Commerce Center Project, November 2015.

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
II.	**AGRICULTURE AND FOREST RESOURCES** - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:				

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Substantiation:

a–c) *No Impact*. The Project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Nor is the Project site zoned for forest lands, timberlands, or timberland production. The Project would have no effect on farmlands, forest lands or timberlands. No Williamson Act contracts are in place for the subject site. For these reasons, the Project would not conflict with any existing agricultural zoning designations, nor affect any existing Williamson Act contract(s).

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d) *No Impact*. There are no lands within the City of Moreno Valley that qualify as forest land or timberland. Further, there are no areas within the City that are zoned as forest land, timberland, or timberland production. The Project would therefore have no impact regarding loss of forest lands or conversion of forest lands to non-forest use.

e) *No Impact*. There are no forest lands or farm lands on the Project site; and the Project would have no effect on any off-site forest lands or farm lands. The Project does not involve or propose other changes to the environment which could result in the conversion of farm land or forest land to other uses. Therefore, there is no potential for conversion of forest land to a non-forest use or conversion of farm land to a non-agricultural use.

Sources: Moreno Valley General Plan; Preliminary Plans for Indian Street Commerce Center Project, November 2015.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
III. AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which	☒	☐	☐	☐

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
exceed quantitative thresholds for ozone precursors)?				
d) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Substantiation:

a) *Potentially Significant Impact*. The Project is located within the South Coast Air Basin (Basin) under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is locally responsible for administration and implementation of the Air Quality Management Plan (AQMP). Development of the Project could result in the production of additional criteria air pollutants which may interfere with, or obstruct, the SCAQMD's implementation of the AQMP. These potential impacts will be addressed in the EIR, and mitigation measures will be developed to address any potentially significant impacts.

b–d) *Potentially Significant Impact*. Construction activities associated with the Project implementation would generate fugitive dust and construction vehicle emissions. Ongoing occupation and use of Project facilities would generate vehicular trips and associated vehicular-source air pollutant emissions; buildings proposed by the Project would result in energy consumption, associated primarily with heating and air conditioning, which would generate air pollutant emissions.

Construction-source and operational-source emissions resulting from the Project may contribute to existing and projected exceedances of criteria pollutants within

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the Basin, and could exceed air quality standards and thresholds of significance established by the SCAQMD. Regional and localized air quality impacts of the Project will be evaluated in the Project EIR. Mitigation measures will be developed to address any potentially significant impacts.

e) *Less-Than-Significant Impact*. Temporary and intermittent odor releases may occur during Project construction. Potential construction-source odors include but are not limited to: diesel exhaust, asphalt/paving materials, glues, paint, and other architectural coatings. The Project does not propose facilities or on-going operations that would create objectionable odors affecting a substantial number of people.

Construction-source and operational-source odor impacts are controlled as a byproduct of hazardous/potentially hazardous materials handling plans and Best Management Practices implemented under SCAQMD Rule 402 et al.; and pursuant to performance standards articulated in the MVIAP.

Sources: SCAQMD Rule 402; MVIAP; Preliminary Plans for Indian Street Commerce Center Project, November 2015.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the Project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☒	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural	☒	☐	☐	☐

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☒	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☒	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

Substantiation:

a) *Potentially Significant Impact*. The Project may result in impacts to candidate, sensitive, or special status species. Specifically, the Project site and surrounding area may provide habitat for, and may be occupied by, the western burrowing owl—a California Department of Fish and Wildlife (CDFW) species of special concern. A biological resources assessment will be prepared as an element of the Project EIR. The assessment will identify and address potential direct and indirect

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impacts to candidate, sensitive, or special status species. Mitigation measures will be developed to address any potentially significant impacts.

b–c) *Potentially Significant Impact*. The Project's potential to adversely affect any riparian habitat or other sensitive natural community will be evaluated as part of the biological resources assessment and summarized within the Project EIR. Mitigation measures will be developed to address any potentially significant impacts.

d) *Potentially Significant Impact*. The Project's potential to interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites will be evaluated as part of the biological resources assessment and summarized within the Project EIR. Mitigation measures will be developed to address any potentially significant impacts.

e, f) *Less-Than-Significant Impact*. The Project would comply with Municipal Code biological survey and biological fee mitigation requirements (Municipal Code Chapter 8.60, *Threatened and Endangered Species*). Additionally, the Project would adhere to all applicable General Plan Policies, specifically compliance with the MSHCP. There are no other known local ordinances protecting biological resources within the City. The Project's potential to conflict with any local policies or ordinances protecting biological resources is therefore considered less-than-significant.

Sources: Moreno Valley General Plan; Moreno Valley Municipal Code; Preliminary Plans for Indian Street Commerce Center Project, November 2015.

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☒	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☒	☐	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☒	☐	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Substantiation:

a–c) *Potentially Significant Impact*. The Project EIR will present the results of a Cultural Resources Investigation to be performed for the Project site. The Cultural Resources Investigation in total will address the potential for the Project to result in impacts to historic, archaeological, prehistoric and paleontological (fossil) resources, including those that may be present onsite within a buried context.

d) *Less-Than-Significant Impact*. The likelihood of encountering human remains in the course of Project development is minimal. However, as required by California Health and Safety Code Section 7050.5, should human remains be found, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains were found to be prehistoric, the coroner would coordinate with the California Native American Heritage Commission as required by State law,

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following the provisions of State *CEQA Guidelines* Section 15064.5. Based on compliance with these existing regulations, the Project's potential to disturb human remains is considered less-than-significant.

Source: Preliminary Plans for Indian Street Commerce Center Project, November 2015.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VI. TRIBAL CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?	☒	☐	☐	☐

Substantiation:

a) *Potentially Significant Impact*. The Project Cultural Resources Investigation will encompass potential effects of the Project on Tribal Cultural Resources. There are no known Tribal Cultural Resources within the Project site. Nor is it anticipated that the Project would adversely affect off-site Tribal Cultural Resources. Notwithstanding, Tribal Resources consultation with requesting Tribes will be accomplished as provided for under AB 52, Gatto. *Native Americans: California Environmental Quality Act*. Pending completion of any requested Tribal Consultation(s), the potential for the Project to cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 is considered potentially significant and will be addressed in the Project EIR. Mitigation measures will be proposed if/as required.

Source: Preliminary Plans for Indian Street Commerce Center Project, November 2015.

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the Project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

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Substantiation:

a, i) *Less-Than-Significant Impact.* There are no known active or potentially active faults traversing the Project site. The site is not located within an Alquist-Priolo Zone or an earthquake hazard zone, as mapped by the City (City of Moreno Valley General Plan EIR, Figure 5.6-2, *Seismic Hazards*). On this basis, the potential for the Project to expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving rupture of a known earthquake fault is considered less-than-significant.

a, ii) *Less-Than-Significant Impact*. The Project site is located in a region known to be seismically active and strong seismic ground-shaking could be anticipated during an earthquake event of sufficient magnitude. The nearest known active fault is the San Jacinto-San Jacinto Valley fault, located approximately 8–9 miles east/northeasterly of the site. This fault could generate an earthquake of a magnitude that could damage Project improvements developed within the site.

The California Building Code requires construction methods that minimize the effects of earthquakes on structures. As part of the City's standard review and approval of development projects, any new development must provide a geotechnical study for review and approval by the Building & Safety Official; and comply with the requirements of the approved geotechnical report, and applicable provisions of the Uniform Building Code (UBC) and California Building Code (CBC). Compliance with these requirements reduces potential strong seismic ground-shaking impacts to levels that are less-than-significant.

a, iii) *Less-Than-Significant Impact*. Liquefaction and seismically-induced settlement or ground failure are generally associated with strong seismic shaking in areas where groundwater tables are at relatively shallow depths (within 50 feet of the ground surface) and/or when the area is underlain by loose, cohesionless deposits. During a strong ground-shaking event, saturated, cohesionless soils may acquire a degree

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of mobility to the extent that the overlying ground surface distorts. In extreme cases, saturated soils become suspended in groundwater and become fluid-like.

The Project site is not located within a potential liquefaction zone (City of Moreno Valley General Plan EIR, Figure 5.6-2, *Seismic Hazards*). Further, the Project Geotechnical Study (*Geotechnical Investigation, Proposed Warehouse Development, Southwest Corner of Indian Avenue and Grove View Road, Moreno Valley, California* [NorCal Engineering] July 21, 2014) indicates that the Project site is underlain by very stiff/dense soil conditions below historic high groundwater level of 30 feet below grade, and is therefore not substantively affected by potential liquefaction hazards (Project Geotechnical Study, p. 8). Further, the Project would be required to comply with the requirements of a final City-approved geotechnical report, and applicable provisions of the Uniform Building Code (UBC) and California Building Code (CBC) that would act to minimize any liquefaction or ground-failure concerns that may be encountered. Based on the preceding, the potential for the Project to expose people or structures to potential substantial adverse effects, involving liquefaction or ground-failure is less-than-significant.

a, iv) *No Impact*. The Project site is essentially level, evidencing elevations generally ranging from 1,464 feet above mean sea level (MSL) to approximately 1,468 feet MSL. The subject site is devoid of notable topographic features or substantial terrain differentials. For this reason, the site is not internally susceptible to landslides. Adjacent properties also present little topographic relief. The Project would not create any dangerous conditions related to cut/fill slopes. As such, the potential for landslides or mudflows does not exist in the Project vicinity.

b) *Less-Than-Significant Impact*. Construction activities associated with the Project would temporarily expose underlying soils, thereby increasing their susceptibility to erosion until the Project is fully implemented. Potential erosion impacts incurred during construction activities are mitigated below the level of significance through the Project's mandated compliance with a City-approved Storm Water

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Pollution Prevention Plan (SWPPP) in compliance with the NPDES General Permit for storm water discharges from construction activities. The proposal involves construction of conventional commercial/retail facilities and supporting site improvements within an essentially level area of the City. The Project does not propose to significantly alter existing topography. Based on the preceding, potential impacts associated with erosion or changes in topography, including loss of topsoil are considered less-than-significant.

c) *Less-Than-Significant Impact*. The Project Geotechnical Study in total indicates that the Project site is not located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project. Further, the Project would be required to comply with the requirements of a final City-approved geotechnical report, and applicable provisions of the Uniform Building Code (UBC) and California Building Code (CBC) that would act to minimize any unstable soils, unstable geologic units that may be encountered. On this basis, the potential for the Project to be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse is less-than-significant.

d) *Less-Than-Significant Impact*. The Project Geotechnical Study indicates that soils within the Project site have a low expansion potential, but would require attention during Project design and maintenance (Project Geotechnical Study, p. 15). The Project Geotechnical Study provides Expansive Soils Guidance (Project Geotechnical Study, p. 21) that would ensure the Project would not be affected by any expansive soils that may be encountered in the course of Project development. Further, the Project would be required to comply with the requirements of a final City-approved geotechnical report, and applicable provisions of the Uniform Building Code (UBC) and California Building Code (CBC) that would act to minimize any expansive soil concerns that may be encountered. Based on the

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preceding, the potential for the Project to expose people or structures to potential substantial adverse effects, involving expansive soils is less-than-significant.

e) *No Impact*. Project wastewater would be conveyed by the municipal sanitary sewer system to area-serving wastewater treatment facilities. No septic tanks or other alternative wastewater disposal systems are proposed. There is no potential for adverse impacts due to soils limitations relative to septic tanks or alternative waste water disposal systems.

Sources: Moreno Valley General Plan; *Geotechnical Investigation, Proposed Warehouse Development, Southwest Corner of Indian Avenue and Grove View Road, Moreno Valley, California* (NorCal Engineering) July 21, 2014; Preliminary Plans for Indian Street Commerce Center Project, November 2015.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

Substantiation:

a–b) *Potentially Significant Impact.* The Project's contribution to greenhouse gases emissions may be potentially significant, and will be evaluated in the Project EIR.

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Mitigation measures will be proposed for any impacts determined to be potentially significant.

Sources: Preliminary Plans for Indian Street Commerce Center Project, November 2015.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for the people residing or working in the project area?	☒	☐	☐	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety	☒	☐	☐	☐

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
hazard for the people residing or working in the project area?				
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Substantiation:

a–b) *Less-Than-Significant Impact.* During the normal course of construction activities, there will be limited transport of potentially hazardous materials (e.g., gasoline, diesel fuel, paints, solvents, fertilizer, etc.) to and from the Project site. The Project is required to comply with Hazardous Materials Management Plans and regulations addressing transport, use, storage and disposal of these materials.

The Project does not propose uses or activities that would require atypical transportation, use, storage, or disposal of hazardous or potentially hazardous materials not addressed under current regulations and policies. Mandated compliance with existing regulations also reduces the potential for risk of accidental explosion or release of hazardous substances.

Phase I Environmental Site Assessment 17845 Indian Street Moreno Valley, California (Project Phase I ESA) concludes that there is "[n]o evidence or indication of RECs, or conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the site . . ." (Project Phase I ESA, p. 1).

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Based on the preceding, the potential for the Project to create or result in a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or create or result in a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment is considered less-than-significant.

c) *No Impact.* There are no existing schools, and no schools are proposed, within one-quarter mile of the Project site. The school nearest the Project site is Morning Dove Christian School (25065 Morning Dove Way); a private school located approximately 1.5 miles to the northeast of the Project site. The nearest public school is Mary McLeod Bethune Elementary School, located approximately 1.7 miles northeasterly of the Project site, at the southwest corner of Krameria Avenue at Kitching Street. Accordingly, the Project would have no potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d) *No Impact.* The Project site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Neither would the Project potentially affect, of be affected by, off-site locations listed pursuant to Government Code Section 65962.5. The Project would therefore not create or result in a significant hazard to the public or the environment regarding or related to Government Code Section 65962.5.

e–f) *Potentially Significant Impact.* The Project site is located approximately one-third mile easterly of March Air Reserve Base/Inland Port Airport (MARB/IPA). MARB/IPA airfield is a joint-use airport, operated by the March Air Reserve Base and the March Inland Port Airport Authority. As discussed below, the Project may affect, or could be affected by facilities and operations of MARB/IPA.

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Air Installation Compatible Use Zone (AICUZ) Considerations

To promote compatible land use in areas around Air Force Installations, the Air Force developed the Air Installation Compatible Use Zone (AICUZ) Program. The Program is intended to provide information concerning aircraft accident hazards to communities surrounding Air Force installations and to prevent incompatible development in areas affected by aircraft operations.

Air crash hazards and land use compatibility associated with the MARB airfield were analyzed in the AICUZ Report (Report) prepared by the Air Force in 1998, and updated in 2005. The Report mapped and classified hazard areas into various categories indicating the potential for these areas to be subject to aircraft crashes. These areas included: areas on or adjacent to the runway; clear zone areas under runway approach/departure paths; Accident Potential Zone (APZ) I; and Accident Potential Zone (APZ) II. Aircraft Noise Compatibility Zones are also identified in the Report. As presented in the Report, airfield accident risks are greatest within the clear zones located at either end of the airfield runway(s). Areas with greatest potential exposure to aircraft noise are those areas that align with and parallel the airfield runways. The Project EIR will evaluate the Project's consistency with the AICUZ Program, including the potential for the Project to result in or cause safety hazards in the context AICUZ Program criteria and performance standards. Mitigation will be proposed for any impacts determined to be potentially significant.

Airport Land Use Compatibility Plan (ALUCP) Considerations

Land use compatibility issues, including potential safety concerns relative to MARB/ IPA operations are also addressed in *March Air Reserve Base /Inland Port Airport Land Use Compatibility Plan* November 13, 2014 (Airport Land Use Compatibility Plan, ALUCP). As one component of the ALUCP, various Safety Zones/Referral Areas surrounding the Airport are delineated, defining special land use requirements and development limitations. The Project EIR will evaluate the Project's consistency with the ALUCP, including the potential for the Project to

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result in or cause safety hazards in the context of ALUCP criteria and performance standards. Mitigation will be proposed for any impacts determined to be potentially significant.

g) *Less-Than-Significant Impact*. The Project does not propose or require designs or activities that would interfere with any identified emergency response or emergency evacuation plan. Temporary alterations to vehicle circulation routes associated with Project construction are addressed through the Project Construction Traffic Management Plan (please refer to IS Section 2.0, *Project Description*, Subsection 2.4.3.1, *Construction Traffic Management Plan*). Ongoing coordination with the local fire and police departments during construction would ensure that potential interference with emergency response and evacuation efforts are avoided. The potential for the Project to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan is therefore considered less-than-significant.

h) *No Impact*. The Project site is located in an area that has been largely urbanized, and there are no wildlands within or adjacent to the Project area. On this basis, there is no potential for the Project to expose people or structures to a significant risk of loss, injury or death involving wildland fires. It may be noted that the Project site and surrounding areas are currently provided fire protection and emergency response services by the Moreno Valley Fire Department under contract with the Riverside County Fire Department. Development fees and taxes paid by the Project act to offset its incremental demands for fire protection services.

Sources: Moreno Valley General Plan; *Air Installation Compatible Use Zone Study for March Air Reserve Base* August 2005; *March Air Reserve Base /Inland Port Airport Land Use Compatibility Plan* November 13, 2014; *Phase I Environmental Site Assessment 17845 Indian Street Moreno Valley, California* (Ardent Environmental Group, Inc.) July 15, 2015; Preliminary Plans for Indian Street Commerce Center Project, November 2015.

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☒	☐	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of the pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☒	☐	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☒	☐	☐	☐
e) Create or contribute runoff water which would exceed the capacity of the existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☒	☐	☐	☐
f) Otherwise substantially degrade water quality?	☒	☐	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Substantiation:

a, c–f) *Potentially Significant Impact*. Impervious surfaces created by the Project would result in decreased natural absorption rates and potentially increased rates and volumes of surface runoff. Additionally, runoff from the Project area may include oils from paved areas and other chemicals which may contribute to degradation of offsite surface waters.

The Project would be developed and operated in compliance with all applicable City and Regional Water Quality Control Board (RWQCB) regulations and water quality standards. More specifically, design, construction, and operation of Project stormwater management systems, and development and implementation of Standard Urban Stormwater Mitigation Plan (SUSMP) requirements would be realized consistent with applicable City and RWQCB requirements. Analysis of potential impacts in regard to stormwater management and stormwater discharge quality will be included in the Project EIR. Mitigation measures will be incorporated to address any potentially significant impacts.

b) *Less-Than-Significant Impact*. The Project would not contribute to groundwater depletion, nor discernibly interfere with groundwater recharge. Water is provided throughout the City by the Eastern Municipal Water District (EMWD, District). Groundwater which may be consumed by the Project and the City as a whole is

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recharged pursuant to the District's policies and programs. The Project would not impinge on, nor would otherwise affect, designated recharge areas.

Direct additions or withdrawals of groundwater are not proposed by the Project. Further, construction proposed by the Project will not involve substructures at depths or other subsurface features that would significantly impair or alter the direction or rate of flow of groundwater. Based on the preceding discussions, the Project's potential impacts to groundwater availability, quality, or recharge capabilities, are considered less-than-significant.

g–h) *No Impact*. The Project does not propose the construction of housing. General Plan Safety Element, Figure 6-4, *Flood Hazards* indicates that the Project site is not located within a 100-year flood hazard zone. As such, no placement of structures in a 100-year flood hazard zone would occur as a result of Project implementation and no impact would occur relative to the placement housing or other structures within a mapped 100-year flood hazard area.

i) *Less-Than-Significant Impact*. Portions of the City could be affected by failure of Lake Perris Dam. General Plan Safety Element, Figure 6-4, Fl*ood Hazards* indicates that the Project site is located outside the identified Lake Perris Dam Potential Inundation Area. The Project is not subject to potential inundation as the result of failure of any other known dam or levee. The potential for people or structures to be subjected to substantial risk of loss, injury or death involving flooding as a result of the failure of a levee or dam is therefore considered less-than-significant.

j) *No Impact*. Relative to the Project site, the nearest substantive body of water is Lake Perris, located approximately 2.3 miles easterly of the Project site. At this distance, the Project site is not considered susceptible to seiche-related hazards originating at Lake Perris. The Project site is located approximately 40 miles easterly of coastal waters, and is approximately 1,470 feet above mean sea level. As such, the Project site is not subject to tsunami hazards. No slopes of significance have been

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identified on or near the Project site, and the Project site has not historically been affected by mudflows.

Based on the preceding, impacts related to tsunami, seiche, or mudflow would not affect the Project.

Sources: Moreno Valley General Plan; Preliminary Plans for Indian Street Commerce Center Project, November 2015.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XI. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	☒	☐

Substantiation:

a) *Less-Than-Significant Impact*. The Project site is located within an area designated for industrial uses, within an urbanized area of similar land uses. No established communities exist within the Project site, nor does the Project propose or require elements or operations that would divide an off-site community. Based on the preceding, the potential for the Project to physically divide an established community is considered less-than-significant. Potential off-site effects of the

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Project related to traffic, air quality, noise, etc., will be addressed within correlating topical Sections of the Project EIR.

b) *Less-Than-Significant Impact*. Uses proposed by the Project are consistent with the site's current *Business Park/Light Industrial* General Plan Land Use designation; and the site's *Industrial* Zoning designation established under the MVIAP. No change in land use designation is required or proposed. The Project would therefore not conflict with City General Plan and Zoning policies and requirements.

c) *Less-Than-Significant Impact*. The Project would comport with all requirements of the MSHCP. The Project is not subject to the provisions of any other any habitat conservation plan or natural communities conservation plan. On this basis, the potential for the Project to conflict with any applicable habitat or natural communities conservation plan is considered less-than-significant.

Sources: Moreno Valley General Plan; Moreno Valley Industrial Area Plan; Preliminary Plans for Indian Street Commerce Center Project, November 2015.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XII. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and to the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

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Substantiation:

a–b) *No Impact*. The Moreno Valley General Plan EIR concludes that there are no regionally or statewide significant mineral resources located within the City (General Plan EIR, p. 5.14-2). Additionally, the City has fully adopted and implemented the California Surface Mining and Reclamation Act (SMARA). SMARA regulations govern the extraction of mineral resources and eventual reclamation of mining operations; allowing for the mining of any locally-important mineral resources while precluding or minimizing potentially adverse environmental effects. On this basis, development of the Project would not result in any impacts to mineral resources that would be of future value to the region and the residents of the State.

Sources: Moreno Valley General Plan; Moreno Valley General Plan EIR; Preliminary Plans for Indian Street Commerce Center Project, November 2015.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XIII. NOISE. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☒	☐	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise?	☒	☐	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☒	☐	☐	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Substantiation:

a–d) *Potentially Significant Impact*. Construction of the Project would temporarily and intermittently increase localized noise levels, and occupation of Project facilities will establish long-term stationary/area noise sources. These noise sources could adversely affect any nearby sensitive receptors.

Further, Project traffic, including delivery truck operations, may increase noise levels along affected roadways, with potentially adverse effects at receiving land uses. A Project-specific Noise Impact Study will be prepared to examine potential noise impacts associated with implementation and operations of the Project. Project-related noise impacts will be discussed in the EIR. Mitigation measures will be proposed for impacts determined to be potentially significant.

e) *Potentially Significant Impact*. The Project site is located approximately one-third mile easterly of MARB/IPA and could be affected by noise generated by MARB/IPA airfield facilities and operations. The potential for the Project to be affected by noise generated by MARB/IPA facilities and operations will be addressed in the Project EIR. Mitigation measures will be proposed for impacts determined to be potentially significant.

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f) *No Impact*. No private airstrips are located within the Project vicinity. The Project will not result in impacts in this regard.

Sources: Moreno Valley General Plan; *Air Installation Compatible Use Zone Study for March Air Reserve Base; March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan*; Preliminary Plans for Indian Street Commerce Center Project, November 2015.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XIV. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in the area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Substantiation:

a) *Less-Than-Significant Impact*. The Project does not propose new residential development and would not directly contribute to population growth within the City. Project-related employment demands would likely be filled by the existing personnel pool within the City and neighboring communities, with little or no measurable increase in the City resident population. Significant population growth is therefore not anticipated to occur as a direct result of Project implementation.

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Development proposed by the Project site is consistent with that envisioned under the City General Plan; and the Project is located within an urbanized area that is already served by roadways, utilities, and other infrastructure. Therefore, development proposed by the Project, and any associated infrastructure improvements are unlikely to encourage unanticipated population growth.

Based on the preceding, the potential for the Project to induce substantial growth directly or indirectly is considered less-than-significant.

b–c) *No Impact*. The General Plan Land Use designation of the Project site is *Light Industrial/Business Park*; Zoning for the site is *Industrial*. No housing exists within the Project site, and the Project does not propose uses or activities that would otherwise displace housing assets or persons. Based on the preceding the Project would have no impacts related to displacement of housing or displacement of people.

Sources: Moreno Valley General Plan; Preliminary Plans for Indian Street Commerce Center Project, November 2015.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XV. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of the new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire Protection?	☐	☐	☒	☐

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
b) Police Protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☒	☐
d) Parks?	☐	☐	☒	☐
e) Other public facilities?	☐	☐	☒	☐

Substantiation:

a–b) *Less-Than-Significant Impact*. Development of the Project could result in incremental increased demands for fire protection and law enforcement services. Primary fire protection services to the Project area are currently provided by Moreno Valley Fire Department, under contract with the Riverside County Fire Department. The fire station nearest the Project site is Fire Station 65 (15111 Indian Street), located approximately 2.75 miles northerly of the Project site.

Police protection and crime prevention services are provided by the Moreno Valley Police Department, under contract with the Riverside County Sheriff's Department. The Police Station is located at 22850 Calle San Juan De Los Lagos, approximately 3.75 miles northwesterly of the Project site.

The Project, of itself, is not of sufficient scale or scope to warrant or necessitate the construction or substantive expansion of fire or police protection facilities. That is, these facilities are master planned to serve the City and region as a whole; and to respond to area-wide growth and demographic trends; not to the implementation of single conventional light industrial projects of less than 500,000 square feet, such as proposed by the Project.

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Permit and inspection fees; and tax revenues generated by the Project would provide funding that would be generally available to supplement existing fire protection and police protection service levels. Specifically, the Project would be required to comply with the City of Moreno Valley Development Impact Fee Ordinance (Ordinance No. 695). Fees collected pursuant to Ordinance No. 695 would act to offset incremental Project-related fire protection and police protection services demands.

Based on the preceding, the potential for the Project to result in substantial adverse physical impacts associated with the provision of the new or physically altered fire or police protection facilities is considered less-than-significant.

c) *Less-Than-Significant Impact.* Employment opportunities created by the Project may result in increased secondary impacts to school and park facilities. Both the Moreno Valley Unified School District (MVUSD) and the Val Verde Unified School District (VVUSD) provide educational facilities and services to the City of Moreno Valley. Increased student population could result from requests for Intra-District Transfers from employees of the Project wanting to enroll their children in schools closer to their place of employment. The Project would not however, contribute substantially to the resident population base using school facilities. The potential for secondary effects of the Project to result in substantial adverse physical impacts associated with new or physically altered school facilities is therefore considered less-than-significant. The Project would pay required school impact fees, acting to offset any incremental effects to area school services and school facilities.

d) *Less-Than-Significant Impact.* Light industrial uses proposed by the Project would not introduce new residences to the area or otherwise create substantive additional demands for park facilities or park services. As such, the potential for the Project to result in substantial adverse physical impacts associated with new or physically altered park facilities is therefore considered less-than-significant.

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e) *Less-Than-Significant Impact*. Development of the Project would require established public agency oversight including, but not limited to, plan check and permitting actions by the City Planning Division, City Public Works Department, Moreno Valley Police Department, and the Moreno Valley Fire Department. These actions typically fall within routine tasks of these agencies and are paid for via plan check and inspection fees. The potential for the Project to result in substantial adverse physical impacts associated with new or physically altered other public facilities is therefore considered less-than-significant.

Sources: Moreno Valley General Plan; Moreno Valley Municipal Code (Ordinance No. 695); Preliminary Plans for Indian Street Commerce Center Project, November 2015.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVI. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Substantiation:

a) *Less-Than-Significant Impact*. The Project does not propose elements (e.g., residential development) that would result in substantial increased demands for neighborhood or regional parks or other recreational facilities. As such, the

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Project's potential to result in increased demands on neighborhood or regional parks or other recreational facilities is considered less-than-significant.

b) *No Impact.* The construction of recreational facilities is not included in the Project proposal, nor will the Project require the construction or expansion of recreational facilities. Neither Project construction nor operations are anticipated to negatively impact any surrounding recreational facilities. As such, the Project will have no impact in this regard.

Sources: Preliminary Plans for Indian Street Commerce Center Project, November 2015.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVII. TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☒	☐	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☒	☐	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☒	☐	☐	☐

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☒	☐	☐	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐

Substantiation:

a–b, d) *Potentially Significant Impact*. The Project has the potential to increase vehicular traffic along area roads. A comprehensive Traffic Impact Analysis (TIA) will be prepared to examine potential impacts of the Project to area transportation/traffic facilities and operations. Mitigation measures will be proposed for any impacts determined to be potentially significant.

c) *Potentially Significant Impact.* The Project may conflict with provisions of the MARB/IPA AICUZ Program and/or provisions of the Riverside County ALUCP for MARB/IPA, and thereby could potentially affect air traffic patterns of MARB/IPA. On this basis the potential for the Project to result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks is considered to be potentially significant and will be evaluated in the Project EIR. Mitigation measures will be proposed for any impacts determined to be potentially significant.

e) *Less-Than-Significant Impact*. The Project does not propose elements or aspects that would obstruct or restrict emergency access to or through the area. Notwithstanding, emergency access will be evaluated as part of the Project TIA

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and be designed to assure compliance with all applicable emergency access and safety requirements.

f) *Less-Than-Significant Impact*. The Project does not propose elements or aspects that would conflict with adopted alternative transportation policies. On a long-term basis, the Project may result in increased demand for public transportation as light industrial employment opportunities become available onsite. Affected transit agencies routinely review and adjust their ridership schedules to accommodate public demand. The need for transit-related facilities, including but not limited to bus shelters and bicycle parking, would be coordinated between the City and the Project Applicant, with input from transit providers as applicable, as part of the City's standard development review process. Based on the preceding discussions, the potential for the Project to conflict with adopted policies supporting alternative transportation is considered less-than-significant.

Sources: Moreno Valley General Plan; Preliminary Plans for Indian Street Commerce Center Project, November 2015.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVIII. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Substantiation:

a) *Less-Than-Significant Impact.* Wastewater generated by the Project would be collected for treatment by the Eastern Municipal Water District (EMWD), a permittee of the Santa Ana Regional Water Quality Control Board (SARWQCB).

Wastewater treatment demands of the Project can be accommodated within the scope of existing/programmed EMWD facilities and would not cause or result in exceedance of wastewater treatment requirements of the SARWQCB. That is, Project-generated wastewater would be typical of light industrial sources, and would not require treatment beyond that provided by existing and programmed EMWD facilities. Moreover, the Project would be developed and operated in compliance with the City regulations and standards of the SARWQCB, ensuring that wastewater generated by the Project would not pose unanticipated demands on area wastewater treatment facilities.

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Based on the preceding, the potential for the Project to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board is considered less-than-significant.

b) *Less-Than-Significant Impact.* Most of the City's water is imported via the California Aqueduct from northern and central California. A secondary source of imported water is available to the City from the Colorado River Aqueduct. In addition to imported water, groundwater is also supplied to the City. Portions of the Perris Basin and the San Jacinto Basin (hydrological groundwater basins) are located beneath the City.

Water supply and wastewater treatment are provided to the Project site by EMWD. No additional or non-standard treatment is required to specifically meet the Project's water supply and/or wastewater conveyance and treatment demands. The Project proponent would be required to pay water and sewer connection fees established by EMWD to support the maintenance and planned improvement of existing water and wastewater infrastructure systems. The EMWD, as a regional water supplier, and wastewater treatment provider, would determine when and in what manner treatment facilities would be constructed and/or upgraded to meet increasing demands of areawide development, including the incremental demands of the Project.

Project improvements would include the construction of water laterals necessary to connect the Project to existing water distribution and sanitary sewer lines. This construction would occur within the Project site, or within dedicated public easements/right of way. Any impacts associated with the construction of localized water/wastewater system improvements are addressed with the scope of construction activities in their entirety as will be evaluated in the Project EIR.

Based on the preceding, the Project's potential to require the construction of new water or wastewater treatment facilities or expansion of existing facilities, the

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construction of which could cause significant environmental effects, is considered less-than-significant.

c) *Less-Than-Significant Impact.* The Project does not require or propose new substantive off-site storm water management facilities or systems. All Project stormwater runoff would be directed to on-site stormwater management systems that would be designed and constructed in accordance with City requirements. Analysis of environmental impacts associated with the implementation of the Project stormwater management systems are coincident with other environmental topics addressed in the EIR, and no specific analysis of potential impacts resulting from implementation of the Project stormwater management system is warranted or required. Prior to the issuance of building permits, the developer would prepare and submit a site-specific drainage study reflecting precise pad locations, proposed drainage structures, temporary retention areas, storm water quality treatment areas, etc. All required stormwater management systems would be designed and implemented to the satisfaction of the City. Any impacts associated with the construction of localized stormwater management system improvements are addressed with the scope of construction activities in their entirety as will be evaluated in the Project EIR.

Based on the preceding, the potential for the Project to require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects is considered less-than-significant.

d) *Less-Than-Significant Impact.* The City of Moreno Valley is served by two water purveyors: Eastern Municipal Water District (EMWD) and the Box Springs Mutual Water Company. Eastern Municipal Water District is the primary water purveyor fro the City and would provide water service to the Project. Water demands of the Project are consistent with, and are anticipated under the EMWD 2010 Urban Water Management Plan (UWMP). That is, the water demand planning reflected in the UWMP takes into account anticipated development of the City pursuant to

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the General Plan. In this regard, the UWMP reflects and anticipates light industrial development proposed by the Project. The UWMP substantiates that there would be sufficient water supplies to meet all EMWD Service Area demands, including water demands of the Project.

Senate Bill 610 (Costa) (California Public Resources Code Section 21151.9 and Water Code Section 10910 et seq.) requires the preparation of a Water Supply Assessment (WSA) for industrial projects that propose more than 650,000 square feet of development; would occupy more than 40 acres of land; or that would employ 1,000 or more persons. Because the Indian Street Commerce Center Project proposes 446,350 square feet of light industrial uses within an approximately 19.64-acre site; with an anticipated employment base of approximately 400 to 450 persons[1], the preparation of a WSA is not required.

As supported by the preceding discussion, sufficient water supplies are available to serve the Project from existing entitlements and resources, and the potential for the Project to require new or expanded entitlements is less-than-significant.

e) *Less-Than-Significant Impact*. Wastewater service will be provided to the Project site by EMWD. Wastewater generated by the Project would be collected and conveyed to the Moreno Valley Regional Water Reclamation Facility (MVRWRF). This facility has a capacity to treat 16 million gallons of wastewater per day (mgd) and a capacity to expand to 41 mgd. The utilization in the year 2002 was approximately 11 mgd.

Wastewater generated by the Project is accounted for and reflected in current and programmed EMWD sewer treatment facilities planning. The Project would pay applicable sewer connection and service fees, providing funds available for

[1] Estimated employment based on approximately one (1) job per 1,030 square feet of development, per Riverside County General Plan Appendix E, Buildout Assumptions and Methodology, Page 6, Light Industrial employment multiplier.

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EMWD waste water system expansion and maintenance, acting to offset the Project's incremental demands for wastewater collection and treatment services.

Based on the preceding discussion, the Project's potential to exceed current or anticipated wastewater treatment capacities or require the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, is considered less-than-significant.

f) *Less-Than-Significant Impact*. Solid waste generated within the City is conveyed primarily to the Riverside County Waste Management Department's (RCWMD) Badlands Landfill. However, the City's trash hauler may also access other County landfills in the area, such as the Lamb Canyon Landfill and El Sobrante Landfill. All Riverside County landfills are Class III disposal sites permitted to receive non-hazardous municipal solid waste such as would be generated by the Project. Landfills serving the City operate below their permitted maximum daily acceptance rates, and have the potential for future expansion.[2] Based on their current and future capacities and capabilities, landfills serving the City could accommodate incremental solid waste demands of the Project. Compliance with State and City waste reduction and recycling mandates would decrease the Project's solid waste disposal requirements by a minimum of 50 percent, further reducing potential impacts at serving landfills.

Based on the preceding discussion, the Project would be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs. The potential for the Project to exceed the permitted capacity of serving landfills is considered to be less-than-significant.

[2] CalRecycle. "Facility/Site Listing." SWIS Search Results: General Details. CalRecycle, n.d. Web. 6 Nov. 2015.

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g) *Less-Than-Significant Impact*. The Project would be implemented and operated in compliance with applicable City General Plan Goals and Policies, and would comport with City Zoning regulations—specifically, the Project would comply with local, state and federal initiatives and directives acting to reduce and divert solid waste from landfill waste streams.

In these regards, the California Integrated Waste Management Act under the Public Resources Code requires that local jurisdictions divert at least 50% of all solid waste generated by January 1, 2000. The City remains committed to continuing its existing waste reduction and minimization efforts with the programs that are available through the City. Additionally, beginning July 1, 2012, the State of California required that all businesses that generate four cubic yards or more of refuse per week implement a recycling program. This requirement is set forth in Assembly Bill 341, which was passed by the California legislation in October 2011. The Project would comply with the California Integrated Waste Management Act and AB 341 as implemented by the City.

Light industrial uses proposed by the Project, and solid waste generated by those uses would not otherwise conflict with federal, state, and local statutes and regulations related to solid waste.

Based on the preceding, the potential for the Project to conflict with or obstruct federal, state, and local statutes and regulations related to solid waste is considered less-than-significant.

Sources: Moreno Valley General Plan; CalRecycle Solid Waste Information System (SWIS); Preliminary Plans for Indian Street Commerce Center Project, November 2015.

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XIX. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when reviewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☒	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

Substantiation:

a) *Potentially Significant Impact.* The Project proposes light industrial facilities that are consistent with, and allowed under, the site's current General Plan Land Use and Zoning designations; amid other similar urban land uses. Notwithstanding, certain biological resources may be adversely affected by the Project. Additionally, as yet unknown cultural resources may exist within the Project area. The Project therefore may have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to

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eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. The EIR will propose mitigation to reduce or avoid any potentially significant impacts to protected biological and/or cultural resources.

b) *Potentially Significant Impact.* The Project has the potential to result in cumulatively considerable impacts. As discussed in the previous environmental evaluation, implementation of the Project may result in potentially significant impacts under the environmental topics of:

- Air Quality;
- Biological Resources;
- Cultural Resources/Tribal Cultural Resources;
- Greenhouse Gas (GHG) Emissions/Global Climate Change;
- Hazards and Hazardous Materials;
- Hydrology/Water Quality;
- Noise; and
- Transportation/Traffic.

To a certain extent, impacts of the Project, together with existing uses and other known or anticipated development proposals may have a cumulative effect under all of the aforementioned environmental considerations. The Project EIR will identify the Project's contribution to, and context within, potentially significant cumulative environmental effects influencing the vicinity and region. Mitigation will be proposed in instances where the Project may result in, or contribute considerably to potentially significant cumulative impacts.

c) *Potentially Significant Impact***.** As indicated by this IS evaluation, the Project may cause or result in certain potentially significant environmental effects, resulting in potentially adverse effects to human beings. While adverse environmental effects that could affect human beings could, to some degree, be substantiated

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under all CEQA issue areas, Project impacts that could directly affect human beings include:

- Air Quality;
- Greenhouse Gas (GHG) Emissions/Global Climate Change ;
- Hazards and Hazardous Materials;
- Hydrology/Water Quality;
- Noise; and
- Transportation/Traffic.

The Project EIR will address these environmental topics and present mitigation measures for any potentially significant impacts.

Attachment: Appendix A - IS, NOP, NOP Responses [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

4.0 DETERMINATION

Attachment: Appendix A - IS, NOP, NOP Responses [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

Attachment: Appendix A - IS, NOP, NOP Responses [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

4.0 DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	☐
I find that although the project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described previously have been added to the project. A NEGATIVE DECLARATION will be prepared.	☐
I find that the project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.	☒
I find that the project MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on an earlier analysis as described on attached sheets. If the effect is a potentially significant impact or potentially significant unless mitigated an ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that need to be addressed.	☐
I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.	☐

City of Moreno Valley:

Signature _____ Date March 9, 2016

Printed Signature: Ross S. Geller for Julia Descoteaux, City of Moreno Valley

Attachment: Appendix A - IS, NOP, NOP Responses [Revision 2] (2416 : A PUBLIC HEARING FOR AN

Community Development Department
Planning Division
14177 Frederick Street
P. O. Box 88005
Moreno Valley CA 92552-0805
Telephone: 951.413-3206
FAX: 951.413-3210

March 10, 2016

To: Responsible and Trustee Agencies/Interested Organizations and Individuals

Subject: NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT-INDIAN STREET COMMERCE CENTER PROJECT

The City of Moreno Valley will be coordinating the preparation of an Environmental Impact Report (EIR) for the proposed Indian Street Commerce Center Project (the Project). In summary, the Project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. As currently proposed, 357,080 square feet, or approximately 80 percent of the Project building area would be allocated for distribution warehouse uses; the remaining 89,270 square feet, or approximately 20 percent of the Project building area would be assigned to manufacturing. Supporting office uses would also be incorporated in the building design. The proposed Indian Street Commerce Center Project (Project), including all facilities proposed within the Project site, on- and off-site supporting improvements, and associated discretionary actions, is the Project that will be considered in the EIR.

The Project site is located within the southern portion of the City of Moreno Valley, in western Riverside County. The Project site is located approximately one-half mile westerly of Perris Boulevard and is bounded by Indian Street to the east. Grove View Road (alignment) comprises the Project site northerly boundary. March Air Force Base is located approximately one-third mile westerly of the Project site.

This letter is a request for environmental information that you or your organization believes should be addressed in the EIR. Due to time limits, as defined by the California Environmental Quality Act (CEQA), your response should be sent at the earliest possible date, but no later than April 13, 2016. Comments and questions may be directed to:

City of Moreno Valley
Planning Division
14177 Frederick Street
Moreno Valley, CA 92552
Contact Person: Julia Descoteaux

The City has also scheduled a public scoping meeting for Wednesday, March 30, 2016. The meeting will be held from 6:00 p.m. to 7:00 p.m. in the City Council Chambers.

Sincerely,

Julia Descoteaux
Associate Planner

Attachment: Appendix A - IS, NOP, NOP Responses [Revision 2] (2416 : A PUBLIC HEARING FOR AN

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

Notice of Preparation

RECEIVED
MAR 17 2016
CITY OF MORENO VALLEY
Planning Division

March 14, 2016

To: Reviewing Agencies

Re: Indian Street Commerce Center Project
SCH# 2016031036

Attached for your review and comment is the Notice of Preparation (NOP) for the Indian Street Commerce Center Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Julia Descoteaux
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

State Clearinghouse Data Base

SCH# 2016031036
Project Title Indian Street Commerce Center Project
Lead Agency Moreno Valley, City of

Type NOP Notice of Preparation

Description The project proposes approx. 446,350 sq. ft. of light industrial uses within an approx. 19.64-acre site. As currently proposed, 357,080 sq. ft., or approx. 80 percent of the Project building area would be allocated for distribution warehouse uses; the remaining 89,270 sq. ft., or approx. 20 percent of the Project building area would be assigned to manufacturing uses.

Lead Agency Contact

Name Julia Descoteaux
Agency City of Moreno Valley
Phone 951-413-3209 **Fax**
email
Address 14177 Frederick Street
City Moreno Valley **State** CA **Zip** 92553

Project Location

County Riverside
City Moreno Valley
Region
Cross Streets Indian Street/Grove View Road
Lat / Long 33° 51' 44.1" N / 117° 14' 17.82" W
Parcel No. 316-210-019, -+020, -057, -077
Township 3S **Range** 3W **Section** 31 **Base** SB

Proximity to:

Highways I-215
Airports March Air Reserve Base
Railways BNSF
Waterways
Schools Various
Land Use Present Use: Vacant/Zoning: Industrial (I)/General Plan Designation: Business Park/Light Industrial (BP/LI)

Project Issues Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Noise; Toxic/Hazardous; Traffic/Circulation; Water Quality; Cumulative Effects

Reviewing Agencies Resources Agency; Colorado River Board; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 6; Native American Heritage Commission; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 8; Air Resources Board; Regional Water Quality Control Board, Region 7

Date Received 03/14/2016 **Start of Review** 03/14/2016 **End of Review** 04/12/2016

Note: Blanks in data fields result from insufficient information provided by lead agency.

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH# 2016031036

Project Title: Indian Street Commerce Center Project

Lead Agency: City of Moreno Valley — Contact Person: Julia Descoteaux
Mailing Address: 14177 Frederick Street — Phone: (951) 413-3209
City: Moreno Valley — Zip: 92553 — County: Riverside

Project Location: County: Riverside — City/Nearest Community: Moreno Valley, CA
Cross Streets: Indian Street/Grove View Road — Zip Code: 92552
Longitude/Latitude (degrees, minutes and seconds): 117 ° 14 ' 17.82 " N / 33 ° 51 ' 44.1 " W Total Acres: 19.64
Assessor's Parcel No.: 316-210-019, -020, -057, -077 — Section: 31 — Twp.: 3S — Range: 3W — Base: San Bern
Within 2 Miles: State Hwy #: I-215 — Waterways: None
Airports: March Air Reserve Base — Railways: BNSF — Schools: Elem1;Mid1;HS2;Priv1

Document Type:

CEQA: ☒ NOP ☐ Draft EIR — NEPA: ☐ NOI — Other: ☐ Joint Document
☐ Early Cons ☐ Supplement/Subsequent EIR ☐ EA ☐ Final Document
☐ Neg Dec (Prior SCH No.) ☐ Draft EIS ☐ Other:
☐ Mit Neg Dec Other: ☐ FONSI

Governor's Office of Planning & Research
MAR 14 2016
STATE CLEARINGHOUSE

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☒ Site Plan ☐ Land Division (Subdivision, etc.) ☐ Other:

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☒ Industrial: Sq.ft. 446,350 Acres 19.64 Employees ____
☐ Educational: ____
☐ Recreational: ____
☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type ____
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☐ Other: ____

Project Issues Discussed in Document:

☐ Aesthetic/Visual ☐ Fiscal ☐ Recreation/Parks ☐ Vegetation
☐ Agricultural Land ☐ Flood Plain/Flooding ☐ Schools/Universities ☒ Water Quality
☒ Air Quality ☐ Forest Land/Fire Hazard ☐ Septic Systems ☐ Water Supply/Groundwater
☒ Archeological/Historical ☐ Geologic/Seismic ☐ Sewer Capacity ☐ Wetland/Riparian
☒ Biological Resources ☐ Minerals ☐ Soil Erosion/Compaction/Grading ☐ Growth Inducement
☐ Coastal Zone ☒ Noise ☐ Solid Waste ☐ Land Use
☒ Drainage/Absorption ☐ Population/Housing Balance ☒ Toxic/Hazardous ☒ Cumulative Effects
☐ Economic/Jobs ☐ Public Services/Facilities ☒ Traffic/Circulation ☐ Other:

Present Land Use/Zoning/General Plan Designation:

Present Use: Vacant/ Zoning: Industrial (I)/ General Plan Designation: Business Park/Light Industrial (BP/LI)

Project Description: *(please use a separate page if necessary)*

The Project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. As currently proposed, 357,080 square feet, or approximately 80 percent of the Project building area would be allocated for distribution warehouse uses; the remaining 89,270 square feet, or approximately 20 percent of the Project building area would be assigned to manufacturing uses.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

NOP Distribution List

County: Riverside

SCH# 201603[illegible]

E.2.o

Resources Agency

- [■] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Denise Peterson
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [▨] **Colorado River Board**
  Lisa Johansen
- [ ] **Dept. of Conservation**
  Elizabeth Carpenter
- [ ] **California Energy Commission**
  Eric Knight
- [ ] **Cal Fire**
  Dan Foster
- [ ] **Central Valley Flood Protection Board**
  James Herota
- [ ] **Office of Historic Preservation**
  Ron Parsons
- [■] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **California Department of Resources, Recycling & Recovery**
  Sue O'Leary
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [▨] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou

Fish and Game

- [ ] **Depart. of Fish & Wildlife**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Wildlife Region 1**
  Curt Babcock
- [ ] **Fish & Wildlife Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Wildlife Region 2**
  Jeff Drongesen
- [ ] **Fish & Wildlife Region 3**
  Craig Weightman
- [ ] **Fish & Wildlife Region 4**
  Julie Vance
- [ ] **Fish & Wildlife Region 5**
  Leslie Newton-Reed
  Habitat Conservation Program
- [■] **Fish & Wildlife Region 6**
  Tiffany Ellis
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6 I/M**
  Heidi Calvert
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Wildlife M**
  Becky Ota
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Sandra Schubert
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Cathy Buck/George Carollo
  Environmental Services Section
- [ ] **Delta Stewardship Council**
  Kevan Samsam
- [ ] **Housing & Comm. Dev.**
  CEQA Coordinator
  Housing Policy Division

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Michael Machado

Diane Watson

- [ ] **OES (Office of Emergency Services)**
  Marcia Scully
- [■] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Supervisor
- [ ] **Santa Monica Bay Restoration**
  Guangyu Wang
- [ ] **State Lands Commission**
  Jennifer Deleong
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Cal State Transportation Agency CalSTA

- [▨] **Caltrans - Division of Aeronautics**
  Philip Crimmins
- [ ] **Caltrans – Planning HQ LD-IGR**
  Terri Pencovic
- [▨] **California Highway Patrol**
  Suzann Ikeuchi
  Office of Special Projects

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Eric Federicks – South
  Susan Zanchi - North
- [ ] **Caltrans, District 4**
  Patricia Maurice
- [ ] **Caltrans, District 5**
  Larry Newland
- [ ] **Caltrans, District 6**
  Michael Navarro
- [ ] **Caltrans, District 7**
  Dianna Watson
- [▨] **Caltrans, District 8**
  Mark Roberts
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [ ] **Caltrans, District 12**
  Maureen El Harake

Cal EPA

Air Resources Board

- [■] All Other Projects
  Cathi Slaminski
  - [ ] Transportation Projects
    Nesamani Kalandiyur
  - [ ] Industrial/Energy Projects
    Mike Tollstrup
- [ ] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Cindy Forbes – Asst Deputy
  Division of Drinking Water
- [ ] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Phil Crader
  Division of Water Rights
- [ ] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [ ] **RWQCB 5F**
    Central Valley Reg 5)
    Fresno Branch Off
  - [ ] **RWQCB 5R**
    Central Valley Reg 5)
    Redding Branch O
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (
    Victorville Branch (
- [■] **RWQCB 7**
  Colorado River Basin Region
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] Other _____
- _____
- _____
- [ ] _____
  Conservancy

Last Updated 3/9/2016

Last Updated 3/9/2016

Attachment: Appendix A - IS, NOP, NOP Responses [Revision 2] (2416 : A PUBLIC HEARING FOR AN

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

RECEIVED
MAR 28 2016
CITY OF MORENO VALLEY
Planning Division

March 22, 2016

Julia Descoteaux, Associate Planner
City of Moreno Valley
14177 Frederick St.
Moreno Valley, CA 92552

Notice of Preparation of a CEQA Document for the
Indian Street Commerce Center Project

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The SCAQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft CEQA document. Please send the SCAQMD a copy of the CEQA document upon its completion. Note that copies of the Draft EIR that are submitted to the State Clearinghouse are not forwarded to the SCAQMD. Please forward a copy of the Draft EIR directly to SCAQMD at the address in our letterhead. **In addition, please send with the Draft EIR all appendices or technical documents related to the air quality and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files. These include original emission calculation spreadsheets and modeling files (not Adobe PDF files). Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. More recent guidance developed since this Handbook was published is also available on SCAQMD's website here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). SCAQMD staff also recommends that the Lead Agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: www.caleemod.com.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD staff requests that the Lead Agency quantify criteria pollutant emissions and compare the results to the recommended regional significance thresholds found here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf. In addition to analyzing regional air quality impacts, the SCAQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the Lead Agency perform a localized analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the Lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*") can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-

toxics-analysis. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

In addition, guidance on siting incompatible land uses (such as placing homes near freeways) can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Perspective*, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate these impacts. Pursuant to CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying possible mitigation measures for the project, including:

- Chapter 11 of the SCAQMD *CEQA Air Quality Handbook*
- SCAQMD's CEQA web pages at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies.
- CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* available here: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf.
- SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions
- Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

SCAQMD Recommendation for Truck Trip Rates for High Cube Warehouse Projects

SCAQMD recommends the use of truck trip rates from the Institute of Transportation Engineers (ITE) for high cube warehouse projects located in SCAQMD (i.e. 1.68 average daily vehicle trips per 1,000 s.f. and 0.64 average daily truck trips per 1,000 s.f.). Consistent with CEQA Guidelines, the EIR may use a non-default trip rate if there is substantial evidence indicating another rate is more appropriate for the air quality analysis.

For high cube warehouse projects, the SCAQMD staff has been working on a Warehouse Truck Trip Study to better quantify trip rates associated with local warehouse and distribution projects, as truck emission represent more than 90 percent of air quality impacts from these projects. Details regarding this study can be found online here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/high-cube-warehouse

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's webpage (http://www.aqmd.gov).

The SCAQMD staff is available to work with the Lead Agency to ensure that project emissions are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at jcheng@aqmd.gov or call me at (909) 396-2448.

Sincerely,

Jillian Wong

Jillian Wong, Ph.D.
Program Supervisor
Planning, Rule Development & Area Sources

RVC160315-05
Control Number

50 YEARS
SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

Main Office

818 West 7th Street
12th Floor
Los Angeles, California
90017-3435

t (213) 236-1800
f (213) 236-1825

www.scag.ca.gov

Officers

President
Cheryl Viegas-Walker, El Centro

First Vice President
Michele Martinez, Santa Ana

Second Vice President
Margaret Finlay, Duarte

Immediate Past President
Carl Morehouse, San Buenaventura

Executive/Administration Committee Chair

Cheryl Viegas-Walker, El Centro

Policy Committee Chairs

Community, Economic and Human Development
Bill Jahn, Big Bear Lake

Energy & Environment
Deborah Robertson, Rialto

Transportation
Alan Wapner, San Bernardino Associated Governments

April 13, 2016

Ms. Julia Descoteaux, Associate Planner
City of Moreno Valley, Planning Division
14177 Fredrick Street
Moreno Valley, California 92552
Phone: (951) 413-3209
E-mail: juliad@moval.org

RE: SCAG Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Indian Street Commerce Center Project [SCAG NO. IGR8801]

Dear Ms. Descoteaux,

Thank you for submitting the Notice of Preparation of a Draft Environmental Impact Report for the Indian Street Commerce Center Project ("proposed project") to the Southern California Association of Governments (SCAG) for review and comment. SCAG is the authorized regional agency for Inter-Governmental Review (IGR) of programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12372. Additionally, SCAG reviews the Environmental Impact Reports of projects of regional significance for consistency with regional plans pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.

SCAG is also the designated Regional Transportation Planning Agency under state law, and is responsible for preparation of the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy ((SCS) pursuant to Senate Bill (SB) 375. As the clearinghouse for regionally significant projects per Executive Order 12372, SCAG reviews the consistency of local plans, projects, and programs with regional plans.[1] Guidance provided by these reviews is intended to assist local agencies such as local jurisdictions and project proponents to take actions that help contribute to the attainment of the regional goals and policies in the RTP/SCS.

SCAG staff has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the Indian Street Commerce Center Project in Riverside County. The proposed project includes construction of approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. As currently proposed, 357,080 square feet would be allocated for distribution warehouse use and the remaining 89,270 square feet would be assigned to manufacturing. Supporting office uses would also be incorporated in the building design.

When available, please send environmental documentation to SCAG's *office in Los Angeles or by email to sunl@scag.ca.gov* providing, at a minimum, the full public comment period for review. If you have any questions regarding the attached comments, please contact the Inter-Governmental Review (IGR) Program, attn.: Lijin Sun, Senior Regional Planner, at (213) 236-1882 or sunl@scag.ca.gov. Thank you.

Sincerely,

Ping Chang

Ping Chang
Acting Manager, Compliance and Performance Monitoring

[1] Lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the 2016 RTP/SCS for the purpose of determining consistency for CEQA. Any "consistency" finding by SCAG pursuant to the IGR process should not be construed as a determination of consistency with the 2016 RTP/SCS for CEQA.

The Regional Council consists of 86 elected officials representing 191 cities, six counties, six County Transportation Commissions, one representative from the Transportation Corridor Agencies, one Tribal Government representative and one representative for the Air Districts within Southern California.

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Attachment: Appendix A - IS, NOP, NOP Responses [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

COMMENTS ON THE NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE INDIAN STREET COMMERCE CENTER PROJECT [SCAG NO. IGR8801]

CONSISTENCY WITH RTP/SCS

SCAG reviews environmental documents for regionally significant projects for their consistency with the adopted RTP/SCS. For the purpose of determining consistency with CEQA, lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the RTP/SCS.

2016 RTP/SCS GOALS

The SCAG Regional Council adopted the 2016 RTP/SCS in April 2016. The 2016 RTP/SCS seeks to improve mobility, promote sustainability, facilitate economic development and preserve the quality of life for the residents in the region. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health (see http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx). The goals included in the 2016 RTP/SCS may be pertinent to the proposed project. These goals are meant to provide guidance for considering the proposed project within the context of regional goals and policies. Among the relevant goals of the 2016 RTP/SCS are the following:

SCAG 2016 RTP/SCS GOALS	
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region*
RTP/SCS G3:	*Ensure travel safety and reliability for all people and goods in the region*
RTP/SCS G4:	*Preserve and ensure a sustainable regional transportation system*
RTP/SCS G5:	*Maximize the productivity of our transportation system*
RTP/SCS G6:	*Protect the environment and health for our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking)*
RTP/SCS G7:	*Actively encourage and create incentives for energy efficiency, where possible*
RTP/SCS G8:	*Encourage land use and growth patterns that facilitate transit and active transportation*
RTP/SCS G9:	*Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies**
	**SCAG does not yet have an agreed-upon security performance measure.*

For ease of review, we encourage the use of a side-by-side comparison of SCAG goals with discussions of the consistency, non-consistency or non-applicability of the goals and supportive analysis in a table format. Suggested format is as follows:

Attachment: Appendix A - IS, NOP, NOP Responses [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

SCAG 2016 RTP/SCS GOALS	
Goal	Analysis
RTP/SCS G1: *Align the plan investments and policies with improving regional economic development and competitiveness*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
RTP/SCS G2: *Maximize mobility and accessibility for all people and goods in the region*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
etc.	etc.

2016 RTP/SCS STRATEGIES

To achieve the goals of the 2016 RTP/SCS, a wide range of land use and transportation strategies are included in the 2016 RTP/SCS. Technical appendances of the 2016 RTP/SCS provide additional supporting information in detail. To view the 2016 RTP/SCS, please visit: http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx. The 2016 RTP/SCS builds upon the progress from the 2012 RTP/SCS and continues to focus on integrated, coordinated, and balanced planning for land use and transportation that the SCAG region strives toward a more sustainable region, while the region meets and exceeds in meeting all of applicable statutory requirements pertinent to the 2016 RTP/SCS. These strategies within the regional context are provided as guidance for lead agencies such as local jurisdictions when the proposed project is under consideration.

DEMOGRAPHICS AND GROWTH FORECASTS

Local input plays an important role in developing a reasonable growth forecast for the 2016 RTP/SCS. SCAG used a bottom-up local review and input process and engaged local jurisdictions in establishing the base geographic and socioeconomic projections including population, household and employment. At the time of this letter, the most recently adopted SCAG jurisdictional-level growth forecasts that were developed in accordance with the bottom-up local review and input process consist of the 2020, 2035, and 2040 population, households and employment forecasts. To view them, please visit http://www.scag.ca.gov/Documents/2016GrowthForecastByJurisdiction.pdf. The growth forecasts for the region and applicable jurisdictions are below.

	Adopted SCAG Region Wide Forecasts			Adopted City of Moreno Valley Forecasts		
	Year 2020	Year 2035	Year 2040	Year 2020	Year 2035	Year 2040
Population	19,663,000	22,091,000	22,138,800	213,700	255,200	256,600
Households	6,458,000	7,325,000	7,412,300	60,000	72,800	73,000
Employment	8,414,000	9,441,000	9,871,500	48,000	64,400	83,200

MITIGATION MEASURES

SCAG staff recommends that you review the Final Program Environmental Impact Report (Final PEIR) for the 2016 RTP/SCS for guidance, as appropriate. SCAG's Regional Council certified the Final PEIR and adopted the associated Findings of Fact and a Statement of Overriding Considerations (FOF/SOC) and Mitigation Monitoring and Reporting Program (MMRP) on April 7, 2016 (please see: http://scagrtpscs.net/Pages/FINAL2016PEIR.aspx). The Final PEIR includes a list of project-level performance standards-based mitigation measures that may be considered for adoption and implementation by lead, responsible, or trustee agencies in the region, as applicable and feasible. Project-level mitigation measures are within responsibility, authority, and/or jurisdiction of project-implementing agency or other public agency serving as lead agency under CEQA in subsequent project- and site- specific design, CEQA review, and decision-making processes, to meet the performance standards for each of the CEQA resource categories.

Attachment: Appendix A - IS, NOP, NOP Responses [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

From: Daniel McCarthy
To: Julia Descoteaux
Subject: NOP for Indian Street Commerce Center Porject EIR
Date: Tuesday, March 15, 2016 10:32:26 AM

Julia,

We received the NOP for the proposed Indian Street Commerce Center Project EIR. Thank you for the opportunity to review and respond. The project is located outside of the Tribe's ancestral territory, therefore we refer you to other tribes with ancestral territories that do include the project location.

Thank you,
Leslie Mouriquand MA, RPA

Daniel McCarthy, MS, RPA
Director
Cultural Resources Management Department
San Manuel Band of Mission Indians
26569 Community Center Drive
Highland, CA 92346
Office: 909 864-8933 x 3248
Cell: 909 838-4175
dmccarthy@sanmanuel-nsn.gov

To ensure a rapid reply concerning all AB 52 Consultation correspondence please use: SMConsultation@sanmanuel-nsn.gov

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. If the reader of this message is not the intended recipient or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination or copying of this communication is strictly prohibited. If you have received this electronic transmission in error, please delete it from your system without copying it and notify the sender by reply e-mail so that the email address record can be corrected. Thank You

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WARREN D. WILLIAMS
General Manager-Chief Engineer

1995 MARKET STREET
RIVERSIDE, CA 92501
951.955.1200
FAX 951.788.9965
www.rcflood.org

203595

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

April 5, 2016

RECEIVED
APR 11 2016
CITY OF MORENO VALLEY
Planning Division

City of Moreno Valley
Community Development Department -
Planning Division
Post Office Box 88005
Moreno Valley, California 92552-0805

Attention: Jeff Bradshaw

Ladies and Gentlemen: Re: TR 37060 and PA 16-0009

The District does not normally recommend conditions for land divisions or other land use cases in incorporated cities. The District also does not plan check city land use cases, or provide State Division of Real Estate letters or other flood hazard reports for such cases. District comments/recommendations for such cases are normally limited to items of specific interest to the District including District Master Drainage Plan facilities, other regional flood control and drainage facilities which could be considered a logical component or extension of a master plan system, and District Area Drainage Plan fees (development mitigation fees). In addition, information of a general nature is provided.

The District has not reviewed the proposed project in detail and the following comments do not in any way constitute or imply District approval or endorsement of the proposed project with respect to flood hazard, public health and safety or any other such issue:

1. This project would not be impacted by District Master Drainage Plan facilities nor are other facilities of regional interest proposed.

2. This project is located within the limits of the District's Sunnymead Area Drainage Plan for which drainage fees have been adopted; applicable fees should be paid by cashier's check or money order only to the Flood Control District or City prior to issuance of grading permits. Fees to be paid should be at the rate in effect at the time of issuance of the actual permit.

GENERAL INFORMATION

This project may require a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board. Clearance for grading, recordation or other final approval should not be given until the City has determined that the project has been granted a permit or is shown to be exempt.

If this project involves a Federal Emergency Management Agency (FEMA) mapped floodplain, then the City should require the applicant to provide all studies, calculations, plans and other information required to meet FEMA requirements, and should further require that the applicant obtain a Conditional Letter of Map Revision (CLOMR) prior to grading, recordation or other final approval of the project, and a Letter of Map Revision (LOMR) prior to occupancy.

If a natural watercourse or mapped floodplain is impacted by this project, the City should require the applicant to obtain a Section 1602 Agreement from the California Department of Fish and Game and a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers, or written correspondence from these agencies indicating the project is exempt from these requirements. A Clean Water Act Section 401 Water Quality Certification may be required from the local California Regional Water Quality Control Board prior to issuance of the Corps 404 permit.

Very truly yours,

HENRY OLIVO
Engineering Project Manager

c: Riverside County Planning Department
Attn: Kristi Lovelady

SKM:blm

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PECHANGA CULTURAL RESOURCES
Temecula Band of Luiseño Mission Indians

Post Office. Box 2183 • Temecula, CA 92593
Telephone (951) 308-9295 • Fax (951) 506-9491

Chairperson:
Neal Ibanez

Vice Chairperson:
Bridgett Barcello

Committee Members:
Mary Bear Magee
Evie Gerber
Darlene Miranda
Richard B. Scearce, III
Michael Vasquez

Director:
Gary DuBois

Coordinator:
Paul Macarro

Planning Specialist:
Tuba Ebru Ozdil

Cultural Analyst:
Anna Hoover

April 13, 2016

VIA E-MAIL and USPS

RECEIVED
APR 18 2016
CITY OF MORENO VALLEY
Planning Division

Ms. Julia Descoteaux
Associate Planner
City of Moreno Valley
Planning Division
14177 Frederick Street
P.O Box 88005
Moreno Valley, CA 92552-0805

Re: Pechanga Tribe Comments on the Notice of Preparation for the Draft Environmental Impact Report, Indian Street Commerce Center Project, PA16-0002, P16-003

Dear Ms. Descoteaux;

These comments are written on behalf of the Pechanga Band of Luiseño Indians (hereinafter, "the Tribe"), a federally recognized Indian tribe and sovereign government. The Tribe formally requests, pursuant to Public Resources Code §21092.2, to be notified and involved in the entire CEQA environmental review process for the duration of the above referenced project (the "Project"). If you have not done so already, please add the Tribe to your distribution list(s) for public notices and circulation of all documents, including environmental review documents, archeological reports, and all documents pertaining to this Project. The Tribe further requests to be directly notified of all public hearings and scheduled approvals concerning this Project. Please also incorporate these comments into the record of approval for this Project.

The Tribe submits these comments concerning the Project's potential impacts to cultural resources in conjunction with the environmental review of the Project and to assist the City in developing appropriate avoidance and preservation standards for potential tribal cultural resources that the Project may impact. The Pechanga Tribe asserts that the Project area is in an area associated with the *Payómkawichum* (Luiseño) Ancestral Origin Landscape as evidenced by the existence of *Payómkawichum* place names, a Traditional Cultural Property (TCP), several large village complexes, *tóota yixélval* (rock art, pictographs, petroglyphs), and an extensive artifact record in the vicinity of the Project. This culturally sensitive area is affiliated with the Pechanga Band of Luiseño Indians because of the Tribe's cultural ties to this area.

Given the sensitivity of the area, inadvertent discoveries are foreseeable impacts and should be appropriately mitigated for within the confines of the Project. The identification of surface

resources during an archaeological survey should not be the sole determining factor in deciding whether mitigation measures for inadvertent discoveries are required. The cultural significance of the area should play a large part in determining whether specifications concerning unanticipated discoveries should be included. Additionally, the Tribe believes that the potential for inadvertent discoveries increases because of the known resources in the area and the possible cultural resources located on the Project surface. The CEQA Guidelines state that lead agencies should make provisions for inadvertent discoveries of cultural resources (CEQA Guidelines §15064.5). As such, it is the position of the Pechanga Tribe that an agreement specifying appropriate treatment of inadvertent discoveries of cultural resources be executed between the Project Applicant/Developer and the Pechanga Tribe.

The Tribe requests to be involved and participate with the City in assuring that an adequate environmental assessment is completed, and in developing all monitoring and mitigation plans and measures for the duration of the Project. In addition, given the sensitivity of the Project area, it is the position of the Pechanga Tribe that professional Pechanga tribal monitors be required to be present during all ground-disturbing activities conducted in connection with the Project.

The Tribe believes that adequate cultural resources assessments and management must always include a component which addresses inadvertent discoveries. Every major State and Federal law dealing with cultural resources includes provisions addressing inadvertent discoveries (See e.g.: CEQA (Cal. Pub. Resources Code §21083.2(i); 14 CCR §1506.5(f)); Section 106 (36 CFR §800.13); NAGPRA (43 CFR §10.4). Moreover, most state and federal agencies have guidelines or provisions for addressing inadvertent discoveries (See e.g.: FHWA, Section 4(f) Regulations - 771.135(g); CALTRANS, Standard Environmental Reference - 5- 10.2 and 5-10.3). Because of the extensive presence of the Tribe's ancestors within the Project area, it is not unreasonable to expect to find vestiges of that presence. Such cultural resources and artifacts are significant to the Tribe as they are reminders of their ancestors. Moreover, the Tribe is expected to protect and assure that all cultural sites of its ancestors are appropriately treated in a respectful manner. Therefore, as noted previously, it is crucial to adequately address the potential for inadvertent discoveries.

Further, the Pechanga Tribe believes that if human remains are discovered, State law would apply and the mitigation measures for the permit must account for this. According to the California Public Resources Code, § 5097.98, if Native American human remains are discovered, the Native American Heritage Commission must name a "most likely descendant," who shall be consulted as to the appropriate disposition of the remains. Given the Project's location in Pechanga territory, the Pechanga Tribe intends to assert its right pursuant to California law with regard to any remains or items discovered in the course of this Project.

The Tribe reserves the right to fully participate in the environmental review process, as well as to provide further comment and consult on the Project's impacts to cultural resources and potential mitigation for such impacts.

The Pechanga Tribe looks forward to working together with the City of Moreno Valley in protecting the invaluable Pechanga cultural resources found in the Project area. Please contact me at 951-770-8113 or at eozdil@pechanga-nsn.gov so we can begin consultation on the proposed Project. Thank you.

Sincerely,

Tuba Ebru Ozdil
Planning Specialist

cc Pechanga Office of the General Counsel

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Fax (916) 373-5471
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

Edmund G. Brown Jr., Governor

March 15, 2016

Julia Descoteaux
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553

sent via e-mail:
juliad@moval.org
Number of pages: 4

RE: SCH# 2016031036 Indian Street Commerce Center Project, City of Moreno Valley, Riverside County, California

Dear Ms. Descoteaux:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
   a. A brief description of the project.
   b. The lead agency contact information.
   c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).
   d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
   a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   a. Alternatives to the project.
   b. Recommended mitigation measures.
   c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

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4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.
   d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
   b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
   a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
   b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
    a. Avoidance and preservation of the resources in place, including, but not limited to:
       i. Planning and construction to avoid the resources and protect the cultural and natural context.
       ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
    b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
       i. Protecting the cultural character and integrity of the resource.
       ii. Protecting the traditional use of the resource.
       iii. Protecting the confidentiality of the resource.
    c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
    e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
    f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

This process should be documented in the Cultural Resources section of your environmental document.

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The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have been already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
    a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
    b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
    a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
    b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
    c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5,

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subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

cc: State Clearinghouse

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April 11, 2016

Julia Descoteaux
Associate Planner
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552
E-Mail: juliad@moval.org

VIA US MAIL AND E-MAIL

RE: Comments on Notice of Preparation and Initial Study for Indian Street Commerce Center Project (Assessor's Parcel Numbers 316-210-019; 316-210-020; 316-210-057; and 316-210-077)

Greetings:

Thank you for the opportunity to comment on the Notice of Preparation (NOP) and Initial Study (IS) prepared for the proposed Indian Street Commerce Center Project (the "Project"). Please accept these comments on behalf of the Sierra Club and concerned area residents.

The Project proposes development of 446,350 square feet of light industrial uses on a 19.64-acre site. As proposed, 357,080 square feet would be dedicated for distribution warehouse uses and 89,270 square feet would be dedicated to manufacturing. The site is presently vacant and undeveloped. The site is located in the southern portion of the City approximately one-half mile west of Perris Boulevard and is bounded by Indian Street to the east and Grove View Road (alignment) to the north. March Air Reserve Base is located approximately one-third mile west of the Project site.

The IS indicates that the Project may result in or cause potentially significant effects related to: Air Quality; Biological Resources; Cultural Resources/Tribal Cultural Resources; Greenhouse Gas (GHG) Emissions/Global Climate Change; Hazards and Hazardous Materials; Hydrology/Water Quality; Noise; and Transportation/Traffic.

The IS does not address whether the site contains any farmland of local importance. This should be evaluated in an EIR. If present, the cumulative loss of agricultural land should also be evaluated in an EIR.

Health risk impacts from the Project should be modeled along all proposed truck routes for the Project, not merely receptors within 1,000 feet of the Project site. The "source" aka trucks, will pass closer to homes and schools if they travel north from the site. It would be preferable if the Project were developed with curb cutouts and other means to deter trucks from traveling north passed residences on Indian

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Avenue or Perris Boulevard, and were instead directed south to Harley Knox and I-215. Cumulative health risk impacts should be quantified. Health risk impacts should be weighted to account for children at the nearby schools.

Potential impacts to raptors, including loss of foraging land, and potential impacts to burrowing owl should be evaluated in the EIR.

A small number of ornamental pines and Chinaberry trees exist in the southwesterly portion of the Project site. What is the history of these trees/ do they have any historical value? The EIR should disclose how and why these trees came to be present onsite and if they have any historic or cultural value.

Impacts to geology/soils should be considered in the EIR. The IS states, "The Project Geotechnical Study indicates that soils within the Project site have a low expansion potential, but would require attention during Project design and maintenance." (IS p. 3-18) The issues that "require attention" should be disclosed and addressed in the EIR.

The Project should be conditioned to install the maximum supported amount of PV. There should be no alternative condition regarding purchasing an equivalent amount of electricity from a utility provider that receives its energy from renewable sources.

With respect to hydrology and water quality, cumulative runoff and flooding impacts to the PV Storm Drain Channel should be considered in the EIR.

The evaluation of traffic impacts should include consideration of impacts to alternate routes and city streets if traffic on highways becomes too congested. Regional and cumulative traffic impacts, and impacts to I-215, SR-60, I-91, and I-10 should be considered.

The statement that regional VMT and vehicular source emissions are reduced because: "Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery vendor truck trips," is unsupported by any evidence. The EIR should consider regional VMT for the Project based on actual trip lengths, likely with a substantial portion travelling to/from the Ports of Los Angeles and Long Beach.

Any EIR prepared for this Project should address potential blighting effects from an oversupply of logistics warehousing in the City from development of this Project, as well as impacts from failing to maintain a mix of industry in the City. The EIR should consider alternatives such as developing the entire Project, not just 20%, as manufacturing. The EIR should also consider an alternative that develops the site as research and development or office and support commercial activities.

While a Water Supply Assessment may not be required pursuant to the Water Code, Project impacts to water supply should nevertheless be assessed in the EIR given drought conditions and the continuing application of use restrictions pursuant to Executive Order.

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Cumulative impacts should be thoroughly considered in the EIR. With respect to traffic, air quality, health risks, biological resources, traffic noise, and other effects, cumulative projects considered should include nearby Moreno Valley and Perris Projects, including, but not limited to, the World Logistics Center, Optimus Logistics Center 1 and Optimus Logistics Center 2. The cumulative impact assessment should not be limited to an arbitrary radius but instead should consider those projects likely to combine with the Project resulting in cumulative effects. The cumulative projects considered for the assessment of traffic may appropriately be greater in scope than other assessments.

Thank you for your consideration of these comments.

Sincerely,

Raymond W. Johnson
JOHNSON & SEDLACK

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EASTERN MUNICIPAL WATER DISTRICT

April 19, 2016

RECEIVED
APR 25 2016
CITY OF MORENO VALLEY
Planning Division

Attn: Julia Descoteaux
City of Moreno Valley
Planning Division
14177 Frederick Street
Moreno Valley, CA 92552-0805

Subject: Indian Street Commerce Center Project; APN: 316-210-019, -020, -057, -077
Location: Westerly of Perris Blvd., and bounded by Indian St. to the East
Description: Preparation of EIR

Dear Ms. Descoteaux:

Thank you for the opportunity to review the above-referenced project. The subject Project requires water and sewer service from EMWD. Detail of the proposed development requires a submittal to EMWD by the project proponent. Upon receipt of submittal, EMWD will review further and provide requirements for obtaining service which include but are not limited to:

1. Review of the project within the context of existing infrastructure.
2. Evaluation of the project's preliminary design and points of connection.
3. Formal Application for Service detailing applicable fees and deposits to proceed with EMWD approved service connections.

To begin the submittal process the project proponent may contact EMWD's New Business Department at:

Eastern Municipal Water District
New Business Department
2270 Trumble Road
Perris, CA 92570
(951) 928-3777, Extension 2081

Again, EMWD appreciates the opportunity to comment on this project.

Sincerely,

Elena Navarre

Elena Navarre
Administrative Assistant I
New Business Department
Eastern Municipal Water District

emn

Community Development Department
Planning Division
14177 Frederick Street
P. O. Box 88005
Moreno Valley CA 92552-0805
Telephone: 951.413-3206
FAX: 951.413-3210

March 10, 2016

To: Responsible and Trustee Agencies/Interested Organizations and Individuals

Subject: NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT-INDIAN STREET COMMERCE CENTER PROJECT

The City of Moreno Valley will be coordinating the preparation of an Environmental Impact Report (EIR) for the proposed Indian Street Commerce Center Project (the Project). In summary, the Project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64-acre site. As currently proposed, 357,080 square feet, or approximately 80 percent of the Project building area would be allocated for distribution warehouse uses; the remaining 89,270 square feet, or approximately 20 percent of the Project building area would be assigned to manufacturing. Supporting office uses would also be incorporated in the building design. The proposed Indian Street Commerce Center Project (Project), including all facilities proposed within the Project site, on- and off-site supporting improvements, and associated discretionary actions, is the Project that will be considered in the EIR.

The Project site is located within the southern portion of the City of Moreno Valley, in western Riverside County. The Project site is located approximately one-half mile westerly of Perris Boulevard and is bounded by Indian Street to the east. Grove View Road (alignment) comprises the Project site northerly boundary. March Air Force Base is located approximately one-third mile westerly of the Project site.

This letter is a request for environmental information that you or your organization believes should be addressed in the EIR. Due to time limits, as defined by the California Environmental Quality Act (CEQA), your response should be sent at the earliest possible date, but no later than April 13, 2016. Comments and questions may be directed to:

City of Moreno Valley
Planning Division
14177 Frederick Street
Moreno Valley, CA 92552
Contact Person: Julia Descoteaux

The City has also scheduled a public scoping meeting for Wednesday, March 30, 2016. The meeting will be held from 6:00 p.m. to 7:00 p.m. in the City Council Chambers.

Sincerely,

Julia Descoteaux
Associate Planner

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Barbara A. Lee, Director
5796 Corporate Avenue
Cypress, California 90630

Edmund G. Brown Jr.
Governor

April 12, 2016

RECEIVED
APR 18 2016

Ms. Julia Descoteaux
Community Development Department
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552-0805

NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT (EIR), INDIAN STREET COMMERCE CENTER PROJECT

Dear Ms. Descoteaux:

The Department of Toxic Substances Control (DTSC) received the above named document dated March 10, 2016. The letter states that the City of Moreno Valley will coordinate the preparation of an EIR for the Indian Street Commerce Center Project.

DTSC is currently working with the Air Force, US EPA, and the Santa Ana Water Board to address groundwater contamination east of the March Air Reserve Base. As the project site is located above a portion of the contaminated groundwater, DTSC recommends that the EIR address this issue for the protection of human health and the environment.

If you have any questions regarding this letter, please contact me at (714) 484-5458.

Sincerely,

Stephen Niou, P.E.
Brownfields and Environmental Restoration Program

Printed on Recycled Paper

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DEPARTMENT OF TRANSPORTATION
DISTRICT 8
PLANNING (MS 722)
464 WEST 4th STREET, 6th Floor
SAN BERNARDINO, CA 92401-1400
PHONE (909) 383-4557
FAX (909) 383-5936
TTY (909) 383-6300
www.dot.ca.gov/dist8

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Planning Division

March 18, 2016

City of Moreno Valley
Community Development Department
Planning Division
Julia Descoteaux
14177 Frederick Street
Moreno Valley, CA 92552

Notice of Preparation of Environmental Impact Report-Indian Street Commerce Center
(RIV 215 PM R32.59)

Ms. Descoteaux

We have completed our initial review for the above said project located east of Interstate 215 (I-215). Approximately one-half mile westerly of Perris Boulevard bounded by Indian Street to the east. Project proposes approximately 446,350 square feet of light industrial uses within an approximately 19.64 acre site.

As the owner and operator of the State Highway System (SHS), it is our responsibility to coordinate and consult with local jurisdictions when proposed development may impact our facilities. Under the California Environmental Quality Act (CEQA), we are required to make recommendations to offset associated impacts with the proposed project. Although the project is under the jurisdiction of the City of Moreno Valley due to the Project's potential impact to State facilities it is also subject to the policies and regulations that govern the SHS.

Traffic Study

- A Traffic Impact Study (TIS) is necessary to determine this proposed project's near-term and long-term impacts to the State facilities and to propose appropriate mitigation measures. The study should be based on Caltrans' *Guide for the Preparation of Traffic Impact Studies (TIS)* which is located at the following website:
  http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf
  Minimum contents of the traffic impact study are listed in Appendix "A" of the TIS guide.

- Traffic Impact further away from the project is typically not required because a project's potential impacts to the SHS dissipate to less than significant levels as traffic disperses throughout the transportation system.

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

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- Traffic Impact further away from the project is typically not required because a project's potential impacts to the SHS dissipate to less than significant levels as traffic disperses throughout the transportation system.

- The data used in the TIS should not be more than 2 years old.

- The geographic area examined in the traffic study should include as a minimum all regionally significant arterial system segments and intersections, including State highway facilities where the project will add over 100 peak hour trips. State highway facilities that are experiencing noticeable delays should be analyzed in the scope of the traffic study for projects that add 50 to 100 peak hour trips.

- Traffic Analysis Scenarios should clearly be exhibited as exiting, existing + project, existing + project + cumulative, and existing + project + cumulative + ambient growth.

- Caltrans endeavors that any direct and cumulative impacts to the State highway system be eliminated or reduced to a level of insignificance pursuant to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) standards.

- The LOS for operating State highway facilities is based upon Measures of Effectiveness (MOE) identified in the Highway Capacity Manual (HCM). Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities; however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than this target LOS, the existing MOE should be maintained. In general, the region-wide goal for an acceptable LOS on all freeways, roadway segments, and intersections is "D". For undeveloped or not densely developed locations, the goal may be to achieve LOS "C".

- Clearly indicate LOS with and without improvements.

- It is recommended that the Synchro Analysis includes all intersections from the Project site to the proposed study areas. A PHF of 0.92 in urban areas is recommended to be used in the Synchro Analysis.

- All freeway entrance and exit ramps where a proposed project will add a significant number of peak-hour trips that may cause any traffic queues to exceed storage capacities should be analyzed. If ramp metering is to occur, a ramp queue analysis for all nearby Caltrans metered on-ramps is required to identify the delay to motorists using the on-ramps and the storage necessary to accommodate the queuing. The effects of ramp

metering should be analyzed in the traffic study. For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

- Proposed improvements should be exhibited in preliminary drawings that indicate the LOS with improvements.

- Please submit a hard copy of all Traffic Impact Analysis documents and an electronic Synchro Analysis file.

Multimodal Accessibility:

Caltrans encourages the provision of multimodal transportation options for road users in order to mitigate congestion and reduce vehicle miles traveled, which in turn reduces greenhouse gas emissions and our State's effect on climate change. This is reflected in our mission, to "provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability". Caltrans therefore seeks to reduce vehicle trips associated with proposed new local development and recommends appropriate mitigation measures that address the transportation impacts of such development. These measures may include the planning and provision of access for the circulation of bicycles, pedestrians, and transit users.

Under Deputy Directive 64-R2: Complete Streets- Integrating the Transportation System (10/17/2014), Caltrans employees have been advised to:

- Collaborate with local and regional partners to plan, develop, and maintain effective bicycle, pedestrian, and transit networks.
- Encourage local agencies to include bicycle, pedestrian, and transit elements in regional and local planning documents, including general plans, transportation plans, and circulation elements.
- Promote land uses that encourage bicycle, pedestrian, and transit travel.
- Promote awareness of bicycle, pedestrian, and transit needs to develop an integrated, multimodal transportation system.
- Maximize bicycle, pedestrian, and transit safety and mobility through each project's life cycle.

Drainage/Hydrology

All existing tributary areas, area drainage patterns and runoff volumes having an impact to adjacent I-215 drainage facilities must be identified and analyzed in a project hydrology study. With regard to any on-site detention area proposed, basin calculations should be included to verify that the basin volume is sufficient to detain necessary runoff flows.

E.2.0

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Packet Pg. 1399

We appreciate the opportunity to offer comments concerning this project. If you have any questions regarding this letter, please contact Talvin Dennis at (909) 806-3957 or myself at (909) 383-4557 for assistance.

Sincerely,

MARK ROBERTS
Acting Chief
Intergovernmental Review, Community and Regional Planning

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Indian Street Commerce Center

TRAFFIC IMPACT ANALYSIS

CITY OF MORENO VALLEY

PREPARED BY:

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JUNE 29, 2016

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DIF	Development Impact Fee
E+P	Existing Plus Project
FHWA	Federal Highway Administration
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
JPA	Joint Powers Authority
LOS	Level of Service
MUTCD	Manual on Uniform Traffic Control Devices
MVIAP	Moreno Valley Industrial Area Plan
NP	No Project (or Without Project)
PCE	Passenger Car Equivalents
PHF	Peak Hour Factor
Project	Indian Street Commerce Center
RCTC	Riverside County Transportation Commission
RTA	Riverside Transit Authority
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SHS	State Highway System
sf	Square Feet
TIA	Traffic Impact Analysis
TSF	Thousand Square Feet
TUMF	Transportation Uniform Mitigation Fee
WP	With Project
WRCOG	Western Riverside Council of Governments
V/C	Volume to Capacity

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1 INTRODUCTION

This report presents the results of the traffic impact analysis (TIA) for the proposed Indian Street Commerce Center development ("Project") located at 17845 Indian Street in the City of Moreno Valley as shown on Exhibit 1-1.

The purpose of this traffic impact analysis is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and to recommend improvements to achieve acceptable circulation system operational conditions. This traffic study has been prepared in accordance with the City of Moreno Valley Transportation Engineering Division's *Traffic Impact Analysis Preparation Guide* (August 2007), the California Department of Transportation (Caltrans) Guide for the Preparation of Traffic Impact Studies (December 2002), and consultation with City of Moreno Valley staff during the scoping process. (1) (2) The approved Project Traffic Study Scoping agreement is provided in Appendix 1.1 of this TIA.

1.1 PROJECT OVERVIEW

The Project is proposed to consist of a total of 446,350 square feet, of which 357,080 square feet (sf) would be allocated to High-Cube Warehouse / Distribution Center use and 89,270 sf to Manufacturing use within a single building. Per the City's traffic study guidelines, the Opening Year will have a 5-year minimum horizon from baseline conditions. As such, the Opening Year analysis will assess 2020 traffic conditions.

Vehicular and truck traffic access will be provided via the following driveways (see Exhibit 1-1):

- Indian Street / Driveway 1 – Full access driveway providing access to passenger cars only. This driveway is proposed to align with the proposed future driveway on the east side of Indian Street.
- Indian Street / Driveway 2 – Full access driveway providing access to trucks only.

Regional access to the project site is provided via the I-215 Freeway at Harley Knox Boulevard interchanges.

Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 9th Edition, 2012. (3) The Project is estimated to generate a net total of 1,472 passenger-car-equivalent (PCE) trip-ends per day on a typical weekday with approximately 157 net AM PCE peak hour trips and 166 net PM PCE peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

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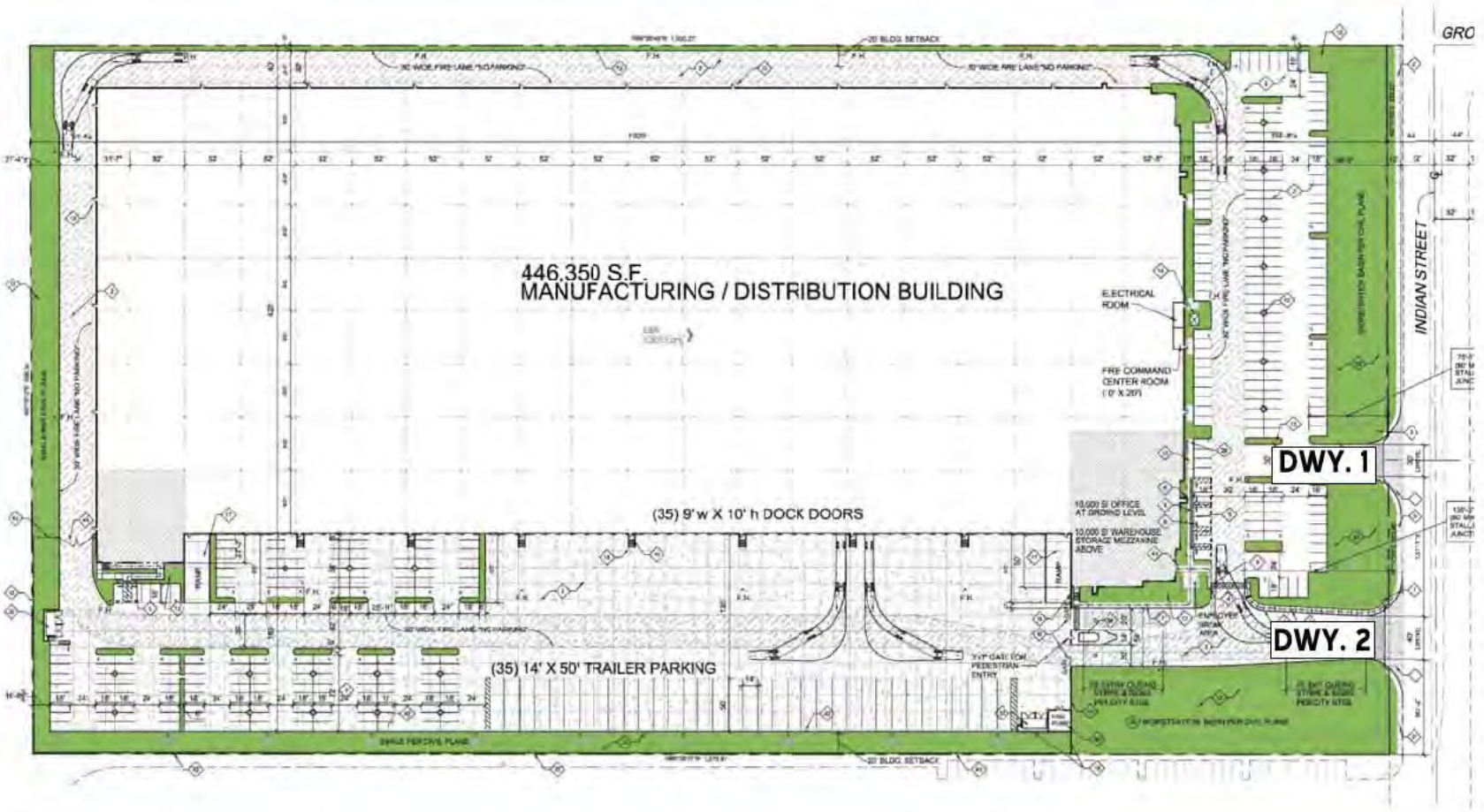
EXHIBIT 1-1: CONCEPTUAL SITE PLAN



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1.2 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential impacts to traffic and circulation have been assessed for each of the following conditions:

- Existing (2015) (1 scenario)
- Existing plus Project (E+P) (1 scenario)
- Opening Year Cumulative (2020), Without and With Project (2 scenarios)

1.2.1 EXISTING (2015) CONDITIONS

Information for Existing (2015) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared.

1.2.2 EXISTING PLUS PROJECT CONDITIONS

The Existing plus Project (E+P) analysis determines circulation system deficiencies that would occur on the existing roadway system in the scenario of the Project being placed upon Existing conditions.

1.2.3 OPENING YEAR CUMULATIVE (2020) CONDITIONS

To account for growth in traffic between Existing Conditions (2015) and the Project Opening Year (2020), a compounded annual traffic growth rate of 2 percent was assumed (10.41 percent aggregate growth in background traffic for the period 2015—2020). The 2 percent annual growth rate is intended to capture non-specific ambient traffic growth.

In context, the TIA's assumed 2 percent compounded annual growth rate is considered a reasonable approximation of future traffic growth when compared to demographic projections reflected in other local and regional growth modeling efforts. More specifically, the Southern California Association of Governments (SCAG) 2012—2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) growth forecasts for the City of Moreno Valley assume the City population to increase from 187,400 in 2008 to 255,200 by the year 2035, or an approximate 1.15 percent growth rate compounded annually. The RTP/SCS assumed growth in households over the same 27-year period reflects an increase from 51,100 households to 72,800 households; a rate of 1.32 percent compounded annually. At the upper end of assumed RTP/SCS growth rates, employment over the same 27-year period is projected to increase from 32,300 jobs to 64,400 jobs; a rate of approximately 2.59 percent compounded annually. (4) The 2 percent compounded annual traffic growth rate employed in the TIA reflects the fact that not all persons comprising population growth, household growth, or employment growth would translate on a one to one basis as a new vehicle trip in the region; and establishes a judicious midrange estimate lying between the RTP/SCS assumed regional population growth rate (1.15 percent) and the RTP/SCS assumed regional employment growth rate (2.59 percent).

Conservatively, the TIA estimates of area traffic growth then add traffic generated by other known or probable related projects. These related projects are at least in part already accounted for in the assumed annual 2 percent ambient growth in traffic noted above; and in some instances

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these related projects would likely not be implemented and operational within the 2020 Opening Year time frame assumed for the Project. The resultant assumed traffic growth rate employed in the TIA (2 percent annual ambient growth + traffic generated by related projects) would therefore tend to overstate rather than understate background cumulative traffic impacts under 2020 conditions

The Opening Year Cumulative (2020) Without and With Project traffic conditions analyses will be utilized to determine if improvements funded through regional transportation mitigation fee programs, such as the Transportation Uniform Mitigation Fee (TUMF) and Development Impact Fee (DIF) programs, or other approved funding mechanism can accommodate the near-term cumulative traffic at the target level of service (LOS) identified in the City of Moreno Valley General Plan. (5) If the "funded" improvements can provide the target LOS, then the Project's payment into TUMF and/or DIF will be considered as near-term cumulative mitigation through the conditions of approval. Other improvements needed beyond the "funded" improvements (such as localized improvements to non-TUMF facilities) are identified as such.

1.3 STUDY AREA

To ensure that this TIA satisfies the City of Moreno Valley's traffic study requirements, Urban Crossroads, Inc. prepared a project traffic study scoping package for review by City of Moreno Valley staff prior to the preparation of this report. The scoping agreement provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology and is included in Appendix 1.1.

1.3.1 INTERSECTIONS

The 10 study area intersections shown on Exhibit 1-2 and listed at Table 1-1 were selected for this TIA based on the City of Moreno Valley's Traffic Study Guidelines and in consultation with City of Moreno Valley staff. Pursuant to the Traffic Study Guidelines, the City requires analysis of intersections where the Project would contribute 50 or more peak hour trips.[1]

Although the Project is anticipated to distribute traffic northerly on Indian Street and easterly on Nandina Avenue, less than 50 peak hour trips would be contributed at intersections in these directions. As such, the study area excludes affected intersections to the north and east, but does however include intersections to the south and west, where the Project is anticipated to contribute 50 or more peak hour trips. (1)

[1] The "50 or more peak hour trips" intersection analytic protocol stipulated in the City Traffic Study Guidelines is consistent with standard industry practice. It is noted further that the 50 peak hour trip threshold is employed by other agencies throughout southern California including Caltrans, County of Riverside, County of San Bernardino, and the County of Orange.

EXHIBIT 1-2: LOCATION MAP



LEGEND:

- 0 = EXISTING INTERSECTION ANALYSIS LOCATION
- 0 = FUTURE INTERSECTION ANALYSIS LOCATION
- 0 = RIVERSIDE COUNTY CMP INTERSECTION ANALYSIS LOCATION
- = ROADWAY SEGMENT ANALYSIS LOCATION

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TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction	CMP?
1	I-215 Southbound Ramps / Harley Knox Boulevard	Caltrans, Riverside Co.	Yes
2	I-215 Northbound Ramps / Harley Knox Boulevard	Caltrans, Perris	Yes
3	Western Way / Harley Knox Boulevard	Perris	No
4	Patterson Avenue / Harley Knox Boulevard	Perris	No
5	Webster Avenue / Harley Knox Boulevard	Perris	No
6	Indian Street / Nandina Avenue	Moreno Valley	No
7	Indian Street / Grove View Road	Moreno Valley	No
8	Indian Street / Driveway 1	Moreno Valley	No
9	Indian Street / Driveway 2	Moreno Valley	No
10	Indian Street / Harley Knox Boulevard	Perris	No

The intent of a Congestion Management Program (CMP) is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related impacts, and improve air quality. Counties within California have developed CMPs with varying methods and strategies to meet the intent of the CMP legislation. The County of Riverside CMP became effective with the passage of Proposition 111 in 1990 and updated most recently in 2011. The Riverside County Transportation Commission (RCTC) adopted the 2011 CMP for the County of Riverside in December 2011. (6) There are 2 study area intersections that are ramp-to-arterial intersections with the I-215 Freeway, which are identified as CMP facilities.

1.3.2 Roadway Segments

The roadway segment study area utilized for this analysis is based on a review of the key roadway segments in which the Project is anticipated to contribute 50 or more peak hour trips. The study area identifies a total of 12 existing/future roadway segments. The roadway segments include the segments on either side of the study area intersections and are listed in Table 1-2 and are identified on Exhibit 1-2.

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TABLE 1-2: ROADWAY SEGMENT ANALYSIS LOCATIONS

ID	Street	Segment	Jurisdiction
1	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	Perris
2		I-215 NB Ramps to Western Way	Perris
3		East of Western Way	Perris
4		West of Patterson Avenue	Perris
5		East of Patterson Avenue	Perris
6		West of Webster Avenue	Perris
7		East of Webster Avenue	Perris
8		West of Indian Street	Perris
9	Indian Street	South of Nandina Avenue	Moreno Valley
10		North of Grove View Road	Moreno Valley
11		South Grove View Road	Moreno Valley
12		North of Harley Knox Boulevard	Perris

1.4 Summary of Intersection Analysis

1.4.1 Intersections

A summary of the operationally deficient study area intersections and recommended improvements required to achieve acceptable circulation system operational conditions are described in detail within Section 3.0 *Existing Conditions*, Section 5.0 *E+P Traffic Conditions*, and Section 6.0 *Opening Year Cumulative (2020) Traffic Conditions* of this report. The peak hour intersection LOS are summarized on Table 1-3 for each of the analysis scenarios.

1.4.2 Roadway Segments

A summary of the operationally deficient study area roadway segments and recommended improvements required to achieve acceptable circulation system operational conditions are described in detail within Section 3.0 *Existing Conditions*, Section 5.0 *E+P Traffic Conditions*, and Section 6.0 *Opening Year Cumulative (2020) Traffic Conditions* of this report. The roadway segment LOS are summarized on Table 1-4 for each of the analysis scenarios.

1.5 Local and Regional Funding Mechanisms

Transportation improvements throughout the City of Moreno Valley are funded through a combination of project mitigation, fair share contributions or development impact fee programs, such as Transportation Uniform Mitigation Fee (TUMF) program or the City's Development Impact Fee (DIF) program.

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Table 1-3

Summary of Intersection Operations by Analysis Scenario

#	Intersection	Traffic Control [1]	Existing (2015)				E+P				2020 NP				2020 WP			
			Delay		LOS[2]		Delay		LOS[2]		Delay		LOS[2]		Delay		LOS[2]	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Harley Knox Bl	TS	29.1	32.9	C	C	32.0	34.8	C	C	**180.2**	**119.9**	**F**	**F**	**199.3**	**130.7**	**F**	**F**
2	I-215 NB Ramps / Harley Knox Bl	TS	19.3	18.4	B	B	19.7	19.1	B	B	**78.5**	**>200.0**	**E**	**F**	**81.9**	**>200.0**	**F**	**F**
3	Western Wy / Harley Knox Bl	TS	13.9	14.0	B	B	14.3	15.2	B	C	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
4	Patterson Av / Harley Knox Bl	TS	19.9	20.2	B	C	20.4	21.1	C	C	**74.0**	**85.2**	**E**	**F**	**86.5**	**114.1**	**F**	**F**
5	Webster Av / Harley Knox Bl	TS	9.5	9.6	A	A	9.5	9.6	A	A	12.9	10.7	B	B	13.3	10.9	B	B
6	Indian St / Nandina Av	TS	18.9	25.8	B	C	19.7	26.4	B	C	29.3	44.3	C	D	30.5	53.1	C	D
7	Indian St / Grove View Rd	CSS	12.0	18.6	B	C	12.4	19.4	B	C	**78.5**	25.6	**F**	D	**98.4**	26.3	**F**	D
8	Indian St / Driveway 1	**CSS**	Does Not Exist				10.5	13.1	B	B	Does Not Exist				31.6	31.5	D	D
9	Indian St / Driveway 2	**CSS**	Does Not Exist				9.6	12.2	A	B	Does Not Exist				10.9	33.4	B	D
10	Indian St / Harley Knox Bl	TS	16.8	24.2	B	C	22.1	28.4	C	C	29.6	**>200.0**	C	**F**	34.4	**>200.0**	C	**F**

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

-- = Not Applicable/Future Intersection

[1] CSS = Cross-street Stop; TS = Traffic Signal: AWS= All-way stop; **CSS** = Improvement

[2] LOS = Level of Service

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Table 1-4

Summary of Roadway Segment Level of Service

#	Roadway	Segment Limits	Roadway Section	Existing V/C[1]	Existing LOS[2]	E+P V/C[1]	E+P LOS[2]	2020 NP V/C[1]	2020 NP LOS[2]	2020 WP V/C[1]	2020 WP LOS[2]	Acceptable LOS[2]
1	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	0.38	A	0.40	A	0.74	C	0.75	C	D
2		I-215 NB Ramps to Western Way	4D	0.50	A	0.52	A	**0.98**	**E**	**1.01**	**F**	D
3		East of Western Way	4U	0.72	C	0.76	C	**1.40**	**F**	**1.43**	**F**	D
4		West of Patterson Avenue	4U	0.69	B	0.73	C	**1.36**	**F**	**1.40**	**F**	D
5		East of Patterson Avenue	6D	0.32	A	0.34	A	0.64	B	0.66	B	D
6		West of Webster Avenue	6D	0.31	A	0.33	A	0.63	B	0.65	B	D
7		East of Webster Avenue	6D	0.31	A	0.33	A	0.62	B	0.64	B	D
8		West of Indian Street	6D	0.37	A	0.39	A	0.69	B	0.71	C	D
9	Indian Street	South of Nandina Avenue	2D	0.67	B	0.68	B	**1.86**	**F**	**1.87**	**F**	D
10		North of Grove View Road	2D	0.66	B	0.67	B	**1.80**	**F**	**1.81**	**F**	C
11		South of Grove View Road	2D	0.74	C	0.75	C	**1.40**	**F**	**1.42**	**F**	C
12		North of Harley Knox Boulevard	4D	0.38	A	0.41	A	0.73	C	0.76	C	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] V/C = Volume to Capacity Ratio

[2] LOS = Level of Service

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1.5.1 TRANSPORTATION UNIFORM MITIGATION FEE (TUMF) PROGRAM

The Western Riverside Council of Governments (WRCOG) is responsible for establishing and updating TUMF rates. The County may grant to developers a credit against the specific components of fees for the dedication of land or the construction of facilities identified in the list of improvements funded by each of these fee programs. Fees are based upon projected land uses and a related transportation need to address growth based upon a 2009 Nexus study.

TUMF is an ambitious regional program created to address cumulative impacts of growth throughout western Riverside County. Program guidelines are being handled on an iterative basis. Exemptions, credits, reimbursements and local administration are being deferred to primary agencies. The County of Riverside serves this function for the proposed Project. Fees submitted to the County are passed on to the WRCOG as the ultimate program administrator.

TUMF guidelines empower a local zone committee to prioritize and arbitrate certain projects. The Project is located in the Central Zone. The zone has developed a 5-year capital improvement program to prioritize public construction of certain roads. TUMF is focused on improvements necessitated by regional growth. The I-215/Harley Knox Boulevard interchange, Harley Knox Boulevard, Indian Street, and Perris Boulevard are designated TUMF roadways/facilities within the Project's traffic study area. The TUMF Central Zone Transportation Improvement Program map is included in Appendix 1.2.

1.5.2 CITY OF MORENO VALLEY DEVELOPMENT IMPACT FEE (DIF) PROGRAM

The City of Moreno Valley has created its own local Development Impact Fee (DIF) program to impose and collect fees from new residential, commercial and industrial development for the purpose of funding roadways and intersections necessary to accommodate City growth as identified in the City's General Plan Circulation Element. The City's DIF program includes facilities that are not part of, or which may exceed improvements identified and covered by the TUMF program. As a result, the pairing of the regional and local fee programs provides a more comprehensive funding and implementation plan to ensure an adequate and interconnected transportation system. Under the City's DIF program, the City may grant to developers a credit against specific components of fees when those developers construct certain facilities and landscaped medians identified in the list of improvements funded by the DIF program.

The timing to use the DIF fees is established through periodic capital improvement programs which are overseen by the City's Public Works Department. Periodic traffic counts, review of traffic accidents, and a review of traffic trends throughout the City are also periodically performed by City staff and consultants. The City uses this data to determine the timing of implementing the improvements listed in its facilities list.

The Project Applicant would pay requisite DIF pursuant to incumbent City ordinance requirements. Payment of requisite DIF would satisfy the Applicant's mitigation responsibilities for potentially significant impacts affecting DIF-funded facilities.

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1.5.3 Fair Share Fees

The Project Applicant's mitigation responsibilities may also be may be fulfilled through payment of fair-share fees. Fair share fees would be paid in instances where required traffic facilities are not otherwise funded by TUMF and/or DIF programs noted above.

1.6 Project Impacts and Mitigation Measures

Based on the assessment of E+P traffic conditions, there were no study area intersections that were found to be impacted by the Project. Section 5 *E+P Traffic Analysis* includes the detailed analysis results.

1.7 Cumulative Impacts and Mitigation measures

This section provides a summary of recommended improvements and associated fee assessments necessary to address the Project's contributions to study area cumulative traffic impacts.

Table 1-5 lists the recommended improvements necessary to reduce the identified intersection LOS deficiencies, by analysis scenario. Street and intersection improvements that may be funded though the TUMF and/or DIF programs are noted. If a particular facility tentatively listed in Table 1-5 is ultimately excluded from the TUMF and/or DIF programs, the Project would be responsible for, and would be required to pay, fair share fees for improvement of affected facilities. These fees are collected as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected vehicle trip increases. Alternatively, minor fair share responsibilities may be waived when collection is infeasible or where other mitigation assignments substantially exceed the Project's demonstrated impacts. A summary of recommended intersection improvements for each analysis scenario is also shown on Exhibit 1-3.

Improvements included in a defined program and constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate. Tables 1-5 also summarizes the applicable fair share percentage associated with each of the recommended improvements. Detailed fair share calculations, for each peak hour, has been provided on Table 1-6 for the applicable deficient intersections shown previously on Table 1-5.

Mitigation Measure 1.1 – Prior to the issuance of building permits, the Project applicant shall participate in the City's DIF and County TUMF fee programs by paying the requisite fees at the time of building permit, and in addition pay the Project's fair share amount of $3,198 for the improvements identified in Table 1-5 that are consistent with the improvements shown on Table 6-4, or as otherwise agreed to by the City and Applicant. Project fair share payment shall only be collected if the City creates a fee program that includes the improvements the fair share contribution is intended to construct.

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Table 1-5

Summary of Improvements by Analysis Scenario

#	Intersection Location	Jurisdiction	Recommended Improvements[1]				Improvements in DIF, TUMF, etc.[1]	Total Cost[2]	Fair Share %[3]	Fair Share Cost[3]
			Existing (2015)	E+P	2020 Without Project	2020 With Project				
1	I-215 SB Ramps / Harley Knox Bl	Caltrans, Riverside Co.	None	None	Restripe SB approach w/ 2 left turn lanes and shared through-right turn lane	Same	Yes (TUMF)[4]		NA[5]	
					2nd WB left turn lane	Same	Yes (TUMF)[4]			
							TOTAL	**$0**		**$0**
2	I-215 NB Ramps / Harley Knox Bl	Caltrans, Perris	None	None	2nd EB left turn lane	Same	Yes (TUMF)[4]		NA[5]	
					WB free-right turn lane	Same	Yes (TUMF)[4]			
							TOTAL	**$0**		**$0**
3	Western Wy / Harley Knox Bl	Perris	None	None	Traffic signal	Same	No	$294,693	4.9%	$14,297
					EB left turn lane	Same	No	$87,465		$4,243
							TOTAL	**$382,158**		**$18,541**
4	Patterson Av / Harley Knox Bl	Perris	None	None	3rd EB through lane	Same	Yes (TUMF)[4]		NA[5]	
					3rd WB through lane	Same	Yes (TUMF)[4]			
							TOTAL	**$0**		**$0**
7	Indian St / Grove View Rd	Moreno Valley	None	None	Traffic signal	Same	No	$294,693	1.7%	$4,885
					Add 2nd NB through lane	Same	Yes (TUMF)[4]			
					Add 2nd SB through lane	Same	Yes (TUMF)[4]			
							TOTAL	**$294,693**		**$4,885**
10	Indian St / Harley Knox Bl	Perris	None	None	SB right turn lane w/ overlap phasing	Same	No	$175,873	5.3%	$9,354
					2nd EB left turn lane	Same	No	$87,465		$4,652
							TOTAL	**$263,338**		**$14,006**
Total Project Fair Share Contribution to the City of Moreno Valley (non-DIF/TUMF)[6]								**$294,693**		**$4,885**
Total Project Fair Share Contribution to the City of Perris[7]								**$645,495**		**$32,547**

[1] Improvements included in TUMF Nexus or City of Moreno Valley DIF programs.

[2] Costs have been estimated using the data provided in Appendix G of the San Bernardino County CMP (2003 Update) for preliminary construction costs. Appendix G costs escalated by a factor of 1.7493 to reflect 2020 conditions, except for Traffic Signals. Traffic signal costs have been escalated by a factor 1.17877 from 2015 costs of $250,000 to reflect 2020 conditions

[3] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at discretion of City. Represents the fair share percentage for the Project during the most impacted peak hour.

[4] Although the interchange is identified as a TUMF interchange, the interchange is not currently identified on the Central Zone 5-Year Transportation Improvement Program Amendment (adopted January 6, 2014).

[5] Fair share percentage is not shown as the recommended improvements at this location are included in a pre-existing fee program.

[6] Total project fair share contribution consists of the improvements which are not already included in the City-wide DIF/County TUMF for those intersections wholly or partially within the City of Moreno Valley.

[7] Total project fair share contribution consists of the improvements which are not already included in a fee program for those intersections wholly or partially within the City of Perris.

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Table 1-6

Project Fair Share Calculations

#	Intersection		Existing	Project	2020 With Project	Total New Traffic	Project Fair Share[1]
3	Western Wy / Harley Knox Bl						
		AM:	1,598	103	3,721	2,123	**4.9%**
		PM:	1,550	109	3,946	2,396	4.5%
7	Indian St / Grove View Rd						
		AM:	607	34	2,658	2,051	**1.7%**
		PM:	1,027	35	3,178	2,151	1.6%
10	Indian St / Harley Knox Bl						
		AM:	1,511	125	3,669	2,158	5.8%
		PM:	1,742	131	4,205	2,463	**5.3%**

* Highest deficient peak hour represented in **BOLD** and shown on Table 1-4.

[1] Fair share based on net new traffic which is calculated from Opening Year Cumulative (2020) with Project traffic volumes less Existing (2015) traffic volumes.

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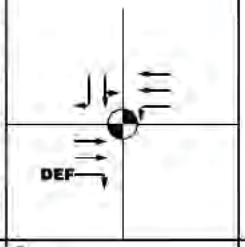
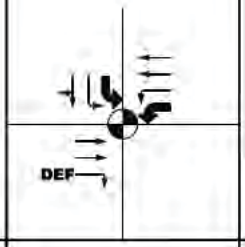
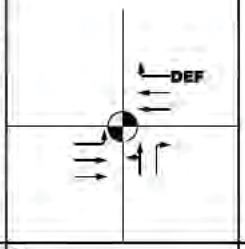
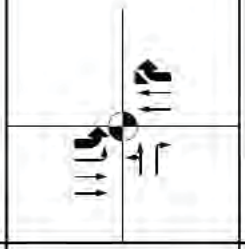
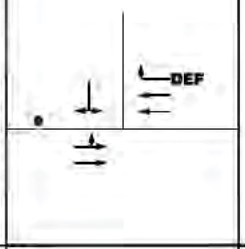
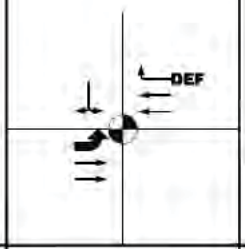
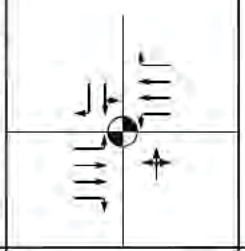
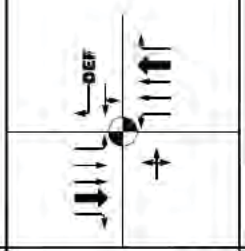
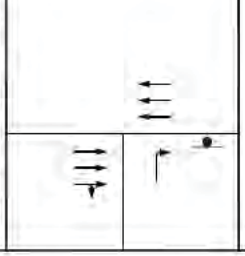
EXHIBIT 1-3 (1 OF 2): SUMMARY OF RECOMMENDED IMPROVEMENTS

		Existing	E+P	2020 NP	2020 WP
I-215 SB Ramps / Harley Knox Bl.	1		Same as Existing		Same as 2020 NP
I-215 NB Ramps / Harley Knox Bl.	2		Same as Existing		Same as 2020 NP
Western Wy. / Harley Knox Bl.	3		Same as Existing		Same as 2020 NP
Patterson Av. / Harley Knox Bl.	4		Same as Existing		Same as 2020 NP
Webster Av. / Harley Knox Bl.	5		Same as Existing	Same as Existing	Same as Existing

LEGEND:

- TRAFFIC SIGNAL
- STOP SIGN
- IMPROVEMENT
- EXISTING LANE
- DEF = DEFACTO RIGHT TURN
- FREE RIGHT TURN

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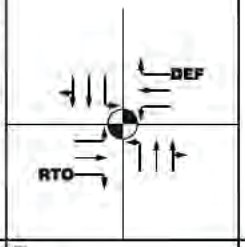
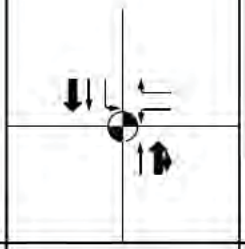
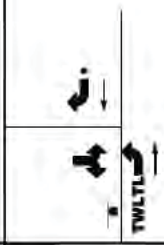
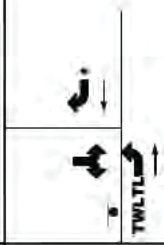
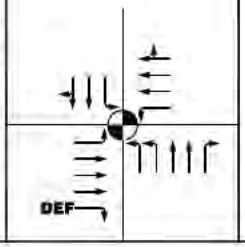
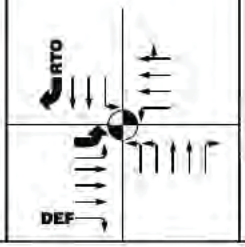
EXHIBIT 1-3 (2 OF 2): SUMMARY OF RECOMMENDED IMPROVEMENTS

	Existing	E+P	2020 NP	2020 WP
Indian St. / Nandina Av.	6 	Same as Existing	Same as Existing	Same as Existing
Indian St. / Grove View Rd.	7 	Same as Existing		Same as 2020 NP
Indian St. / Driveway 1	8 Intersection Does Not Exist		Intersection Does Not Exist	Same as E+P
Indian St. / Driveway 2	9 Intersection Does Not Exist		Intersection Does Not Exist	Same as E+P
Indian St. / Harley Knox Bl.	10 	Same as Existing		Same as 2020 NP

LEGEND:

- = TRAFFIC SIGNAL
- = STOP SIGN
- = IMPROVEMENT
- = EXISTING LANE
- RTO = RIGHT TURN OVERLAP
- DEF = DEFACTO RIGHT TURN
- TWLTL = TWO WAY LEFT TURN LANE
- * = TRAP LANE TO BE STRIPED AS A SHARED THROUGH-RIGH IN THE FUTURE.

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1.8 SITE ADJACENT ROADWAY AND SITE ACCESS IMPROVEMENTS

This section summarizes Project site access and on-site circulation recommendations.

The Project is proposed to have access on Indian Street via Driveway 1 and Driveway 2. Both driveways are assumed to allow full-access. Driveway 1 is proposed to serve passenger cars only, while trucks would utilize Driveway 2. Driveway 1 is proposed to align with the proposed future driveway on the east side of Indian Street. Regional access to the project site is provided via the I-215 Freeway at Harley Knox Boulevard interchanges.

Roadway improvements necessary to provide site access and on-site circulation are assumed to be constructed in conjunction with site development and are described below. These improvements are required to be in place prior to occupancy. Exhibit 1-4 illustrates the site-adjacent roadway improvement recommendations and site access improvements. Construction of on-site and site adjacent improvements are recommended to occur in conjunction with adjacent Project development activity or as needed for Project access purposes. A queuing analysis has been provided for the site access driveways in Appendix 1.3.

GENERAL:

- Unless otherwise stipulated by the Lead Agency, roadways adjacent to the Project site, site access points and site-adjacent intersections would be designed and constructed consistent with City of Moreno Valley General Plan Circulation Element roadway classifications and respective cross-sections.
- On-site traffic signing and striping plans would be submitted concurrent with submittal of Project construction plans and would be subject to City review and approval.
- Sight distance at each Project access point would conform to City of Moreno Valley sight distance standards and would be subject to City review and approval.

INDIAN STREET:

- Construct Indian Street from the northern Project boundary to the southern Project boundary at its ultimate half-section width as a Minor Arterial (88-foot right-of-way), in compliance with applicable City of Moreno Valley standards.

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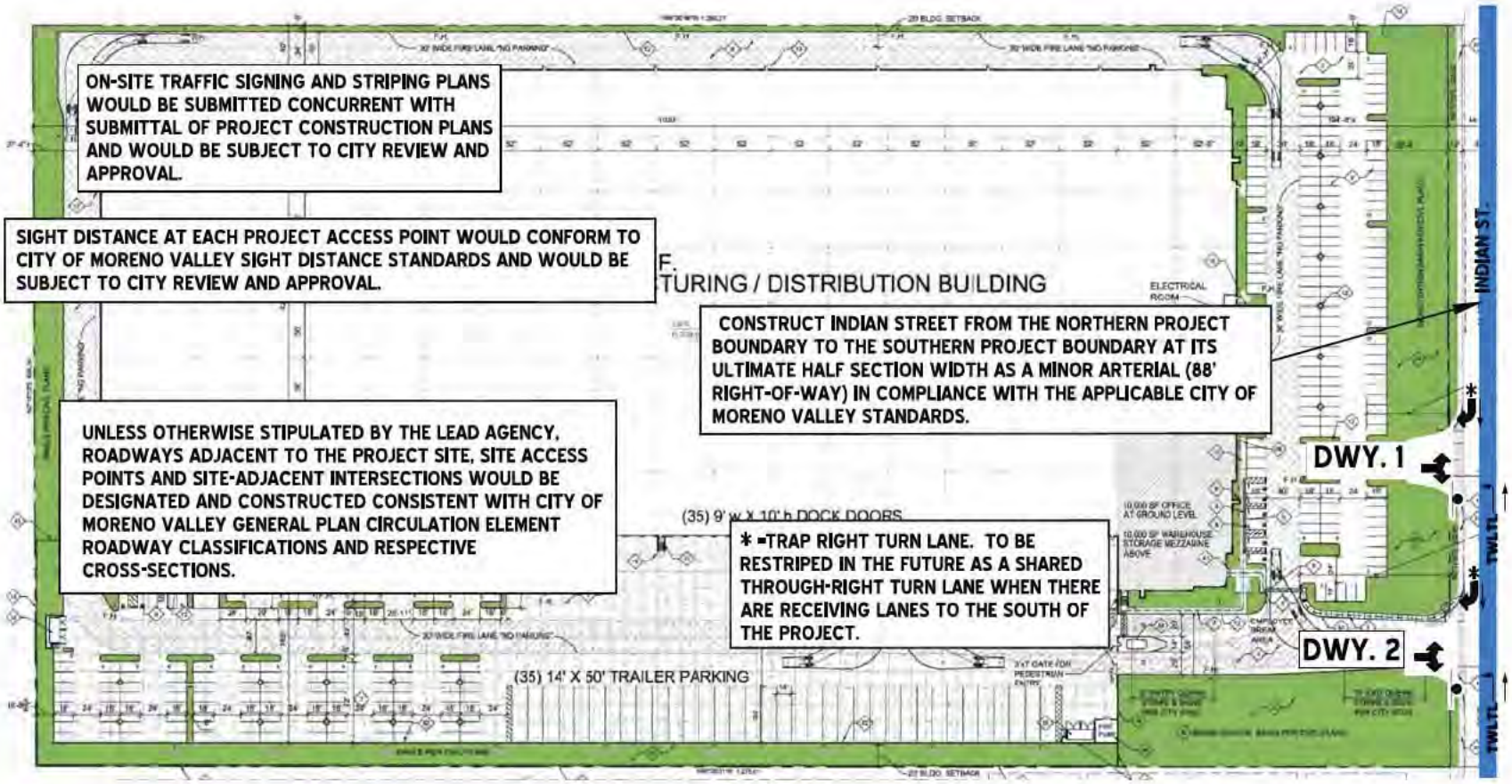
EXHIBIT 1-4: SITE ACCESS AND SITE ADJACENT ROADWAY RECOMMENDATIONS



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1.9 Truck Access and Circulation

A truck turning template has been overlaid on the site plan at each applicable Project driveway anticipated to be utilized by heavy trucks in order to determine appropriate curb radii and to verify that trucks will have sufficient space to execute turning maneuvers. For the purposes of this evaluation, the WB-67 class truck template has been utilized. WB-67 class trucks are approximately 73.5 feet in length.

Exhibit 1-5 illustrates the proposed truck access for the site and circulation for Driveway 2. As shown on Exhibit 1-5, it is recommended that Driveway 2 be designed with a minimum 50-foot curb radius in order to accommodate the ingress and egress of WB-67 trucks (or smaller).

1.10 Freeway Mainline Segment Impact Considerations

The TIA Scoping Agreement did not specifically require an evaluation of potential Opening Year mainline freeway segments impacts. The Lead Agency considers other recent CEQA documentation for proximate (and similar) projects within the Moreno Valley Industrial Area Plan (MVIAP) to have adequately addressed freeway operating conditions; and that further detailed analysis for the proposed Indian Street Commerce Center Project is not warranted. Related relevant CEQA documentation includes, but is not limited to: Modular Logistics Center Draft EIR, Moreno Valley, California (SCH No. 2014031068) (T&B Planning, Inc.) October 24, 2014; and *First Nandina Logistics Center Environmental Impact Report* (SCH No. 2013111047) (T&B Planning, Inc.) June 26, 2014. These documents are available for review at/through the City of Moreno Valley and are incorporated herein by reference. Notwithstanding the preceding, as means of disclosure, potential Opening Year mainline freeway segment impacts that would result from the Project are summarized below.

Under 2020 baseline conditions, certain segments of I-215 Freeway are projected to operate at deficient LOS.[1] These are cumulatively significant impacts. Deficient freeway segments include:

ID	Segment
1	I-215 Southbound, between Harley Knox Boulevard and Van Buren Boulevard
2	I-215 Northbound, between Box Springs Road and the SR-60/I-215 Freeway Interchange
3	I-215 Northbound, between the SR-60 Freeway and Eucalyptus Avenue
4	I-215 Northbound, between Harley Knox Boulevard and Van Buren Boulevard

[1] *First Nandina Logistics Center Environmental Impact Report* (SCH No. 2013111047) (T&B Planning, Inc.) June 26, 2014; pp. 4.9-55. The First Nandina Logistics Center is located northerly adjacent to the Indian Street Commerce Center Project site. Based on the proximity of the Nandina Logistics Center project and the currency of analysis presented in the *First Nandina Logistics Center Environmental Impact Report*, the analysis of i-215 operating conditions contained in the *First Nandina Logistics Center Environmental Impact Report* is considered germane and accurate for analytic purposes of this TIA.

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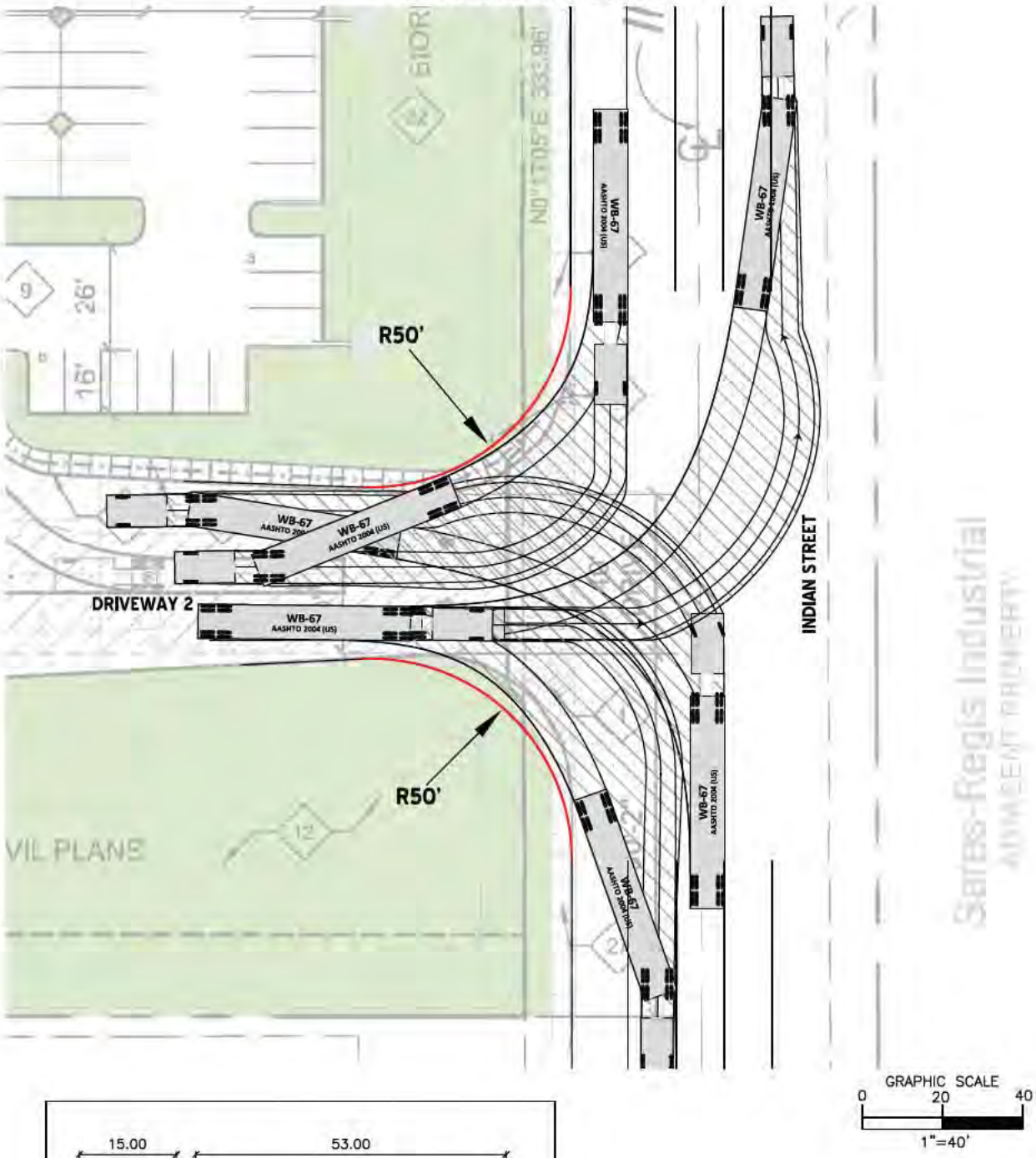
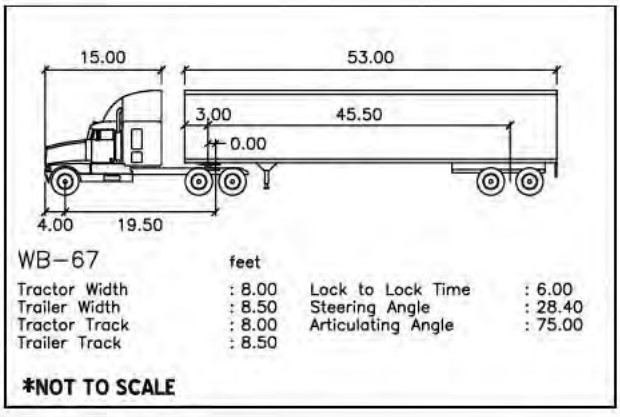
EXHIBIT 1-5: TRUCK ACCESS





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There are no near-term solutions for the deficiencies noted above; and these freeway mainline segment deficiencies are therefore projected to carry forward to the Opening Year Cumulative (2020) conditions evaluated in this TIA. Under Opening Year Cumulative (2020) Conditions, the Project would contribute additional traffic to the already deficient I-215 Freeway mainline segment deficiencies noted above. Globally, Project payment of TUMF would fulfill its mitigation responsibilities for contributions for cumulative traffic impacts deficiencies affecting I-215 Freeway mainline segments. However, it is not within the jurisdictional authority or purview of the Lead Agency or Applicant to adopt, implement, or enforce mitigation measures requiring the construction of improvements by Caltrans, or upon facilities within Caltrans' jurisdiction. As such, there are no feasible mitigation measures that will reduce cumulative freeway mainline segments impacts below significance thresholds. As such, the project's contribution to cumulative-level Opening Year Cumulative traffic impacts affecting the I-215 Freeway is considered significant and unavoidable.

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2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are generally consistent with City of Moreno Valley and Caltrans traffic study guidelines. (1) (2)

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The *Highway Capacity Manual* (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (7) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

City of Moreno Valley, City of Perris, and County of Riverside

The City of Moreno Valley, City of Perris, and the County of Riverside require signalized intersection operations analysis based on the methodology described in the HCM. (7) Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections, LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-1. Study area intersections have been evaluated using the Synchro (Version 9 Build 904) analysis software package.

Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

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TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up	F	F

Source: HCM

The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15 minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows, while lower PHF values are indicative of greater variability of flow during the peak hour. (7)

California Department of Transportation (Caltrans)

Per the Caltrans *Guide for the Preparation of Traffic Impact Studies*, the traffic modeling and signal timing optimization software package Synchro (Version 8 Build 806) has also been utilized to analyze signalized intersections under Caltrans' jurisdiction, which include interchange to arterial ramps (i.e. I-215 Freeway ramps at Harley Knox Boulevard). (2) Signal timing for the freeway arterial-to-ramp intersections have been obtained from Caltrans District 8 and were utilized for the purposes of this analysis.

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2.2.2 UNSIGNALIZED INTERSECTIONS

The unsignalized intersections in the study area are located within the City of Moreno Valley and City of Perris. The City of Moreno Valley and City of Perris require the operations of unsignalized intersections be evaluated using the methodology described the HCM. (7) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2).

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F	F

Source: HCM

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole.

2.3 ROADWAY SEGMENT CAPACITY ANALYSIS

Roadway segment operations have been evaluated using the City of Moreno Valley Daily Roadway Capacity Values provided in the *City of Moreno Valley Transportation Engineering Division Traffic Impact Analysis (TIA) Preparation Guide* and the City of Perris Daily Roadway Capacity Values provided in the City of Perris General Plan Circulation Element. (1) (8) Per the City of Moreno Valley TIA guidelines, roadway segments within the study area should maintain the LOS capacities illustrated on Exhibit 2-1. The City of Perris requires LOS D capacities to be maintained on City roadways. The daily roadway segment capacities for each type of roadway are summarized in Table 2-3. These roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian bicycle traffic. As such, where the average daily traffic (ADT) based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis and progression analysis are undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Therefore, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes.

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TABLE 2-3: ROADWAY SEGMENT CAPACITY LOS THRESHOLDS[1]

City of Moreno Valley:

Facility Type	Level of Service Capacity[1]				
	A	B	C	D	E
Six Lane Divided Arterial	33,900	39,400	45,000	50,600	56,300
Four Lane Divided Arterial	22,500	26,300	30,000	33,800	37,500
Four Lane Undivided Arterial	15,000	17,500	20,000	22,500	25,000
Two Lane Industrial Collector	7,500	8,800	10,000	11,300	12,500
Two Lane Undivided Residential	N/A	N/A	N/A	N/A	2,000

[1] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's TIA Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective roadway classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

City of Perris:

Facility Type	Level of Service Capacity[1]				
	A	B	C	D	E
Six Lane Urban Arterial	32,340	37,730	43,100	48,500	53,900
Four Lane Urban Arterial	21,540	25,130	28,700	32,300	35,900
Two Lane Arterial	10,800	12,600	14,400	16,200	18,000
Four Lane Secondary Arterial	15,540	18,130	20,700	23,300	25,900
Two Lane Collector	7,800	9,100	10,400	11,700	13,000

[1] Source: Table CE-9 of the City of Perris General Plan Circulation Element and Figure C-2 of the County of Riverside General Plan Circulation Element.

All capacity exhibits are based on optimum conditions and are intended as guidelines for planning purposes only.

2.4 FREEWAY OFF-RAMP QUEUING ANALYSIS

The study area for this TIA includes the freeway-to-arterial interchange of the I-215 Freeway at Harley Knox Boulevard off-ramps. Consistent with Caltrans requirements, the 95th percentile queuing of vehicles has been assessed at the off-ramps to determine potential queuing impacts at the freeway ramp intersections on Harley Knox Boulevard. Specifically, the queuing analysis is utilized to identify any potential queuing and "spill back" onto the I-215 Freeway mainline from the off-ramps.

The traffic progression analysis tool and HCM intersection analysis program, Synchro, has been used to assess the potential impacts/needs of the intersections with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps have been based upon the 95th percentile queue resulting from the Synchro progression analysis. The queue length reported is for the lane with the highest queue in the lane group.

There are two footnotes which appear on the Synchro outputs. One footnote indicates if the 95th percentile cycle exceeds capacity. Traffic is simulated for two complete cycles of the 95th percentile traffic in Synchro in order to account for the effects of spillover between cycles. In

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practice, the 95th percentile queue shown will rarely be exceeded and the queues shown with the footnote are acceptable for the design of storage bays. The other footnote indicates whether or not the volume for the 95th percentile queue is metered by an upstream signal. In many cases, the 95th percentile queue will not be experienced and may potentially be less than the 50th percentile queue due to upstream metering. If the upstream intersection is at or near capacity, the 50th percentile queue represents the maximum queue experienced.

A vehicle is considered queued whenever it is traveling at less than 10 feet/second. A vehicle will only become queued when it is either at the stop bar or behind another queued vehicle. Although only the 95th percentile queue has been reported in the tables, the 50th percentile queue can be found in the appendix alongside the 95th percentile queue for each ramp location. The 50th percentile maximum queue is the maximum back of queue on a typical cycle during the peak hour, while the 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes during the peak hour. In other words, if traffic were observed for 100 cycles, the 95th percentile queue would be the queue experienced with the 95th busiest cycle. In other words, queues are lower than the reported 95th percentile queue 95 percent of the time and is only observed to exceed the 95th percentile queue 5 percent of the time. The 50th percentile, or average, queue represents the typical queue length for peak hour traffic conditions, while the 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed; it is simply based on statistical calculations.

2.5 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TIA uses the signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices (MUTCD)*, as amended by *the MUTCD 2014 California Supplement*, for all study area intersections. (9)

The signal warrant criteria for Existing study area intersections are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. Both the FHWA's *MUTCD* and the *MUTCD 2014 California Supplement* indicate that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (9) Specifically, this TIA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions. Warrant 3 criteria are basically identical for both the FHWA's *MUTCD* and the *MUTCD 2014 California Supplement*. Warrant 3 is appropriate to use for this TIA because it provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour). For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Future unsignalized intersections, that currently do not exist, have also been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets.

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As shown on Table 2-4, traffic signal warrant analyses were performed for the following unsignalized study area intersections during the peak weekday conditions wherein the Project is anticipated to contribute the highest trips:

TABLE 2-4: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
3	Western Way / Harley Knox Boulevard	Perris
5	Webster Avenue / Harley Knox Boulevard	Perris
7	Indian Street / Grove View Road	Moreno Valley
8	Indian Street / Driveway 1	Moreno Valley
9	Indian Street / Driveway 2	Moreno Valley

The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. The traffic signal warrant analyses for future conditions are presented in Section 5 *E+P Traffic Analysis,* and Section 6 *Opening Year Cumulative (2020) Traffic Analysis* of this report.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.6 Minimum Level of Service (LOS)

The definition of an intersection deficiency has been obtained from each of the applicable surrounding jurisdictions.

2.6.1 City of Moreno Valley

The definition of an intersection deficiency in the City of Moreno Valley is based on the City of Moreno Valley General Plan Circulation Element. The City of Moreno Valley General Plan states that target LOS C or LOS D be maintained along City roads (including intersections) wherever possible. Exhibit 2-1 depicts the level of service standards within the City.

2.6.2 City of Perris

LOS D is considered to be the limit of acceptable traffic operations during the peak hour in the City of Perris.

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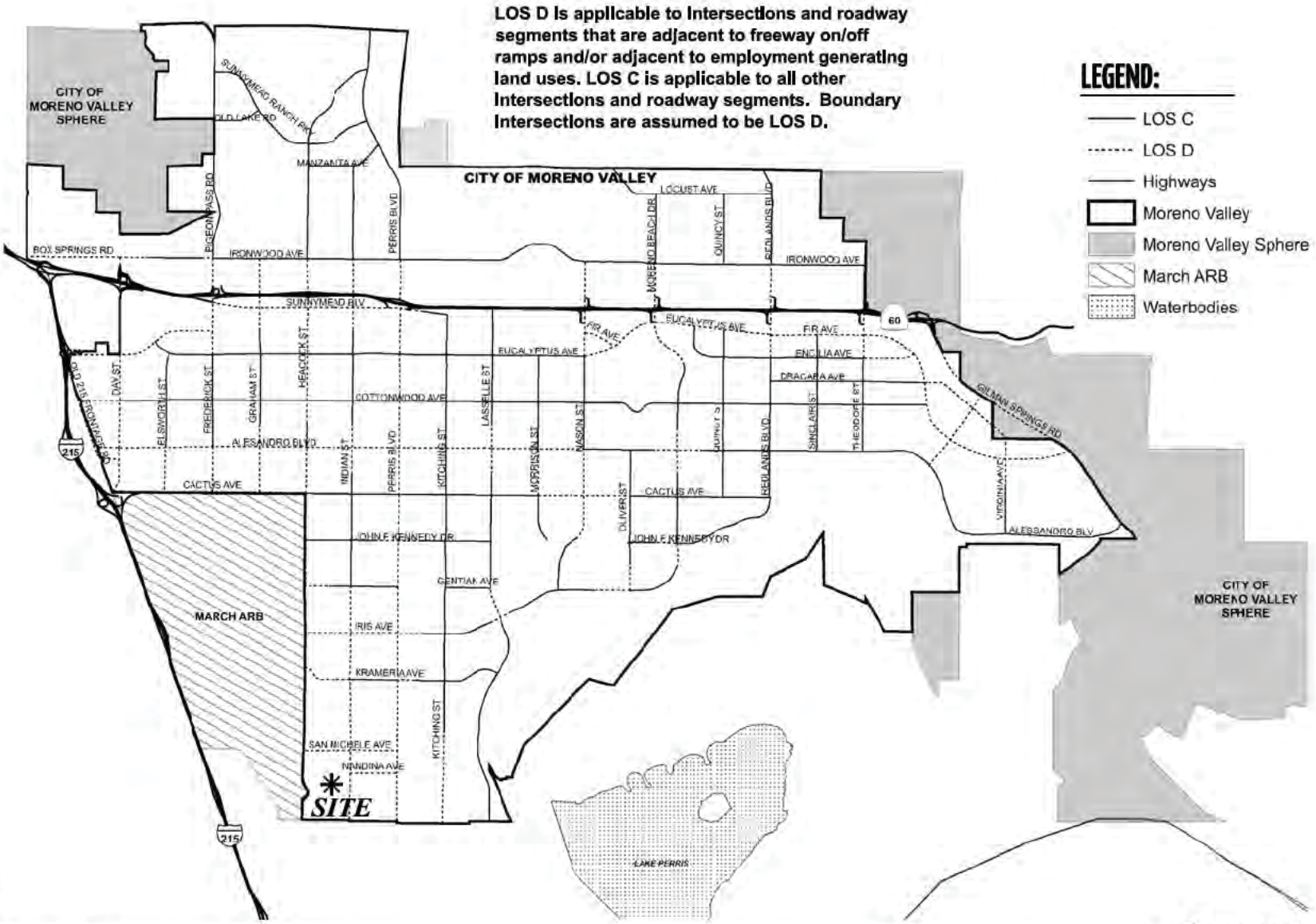
EXHIBIT 2-1: CITY OF MORENO VALLEY LEVEL OF SERVICE (LOS) STANDARDS



2.6.3 CALTRANS

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on the State Highway System (SHS) facilities; however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than this target LOS, the existing LOS should be maintained. Caltrans acknowledges that the region-wide goal for an acceptable LOS on all freeways, roadway segments, and intersections is LOS D. Consistent with the City of Moreno Valley LOS threshold of LOS D and in excess of the CMP stated LOS threshold of LOS E, LOS D will be used as the target LOS for freeway ramps, freeway segments, and freeway merge/diverge ramp junctions.

2.6.4 CMP

In an effort to more directly link land use, transportation and air quality and promote reasonable growth, the County of Riverside adopted a CMP (December 2011). The RCTC monitors the CMP roadway network system to minimize LOS deficiencies. Within the project study area, the I-215 Freeway is recognized as a key transportation facility within the CMP system. Although Caltrans utilizes LOS D as their stated threshold, RCTC has adopted LOS E as the minimum standard for intersections and segments along the CMP System of Highways and Roadways. However, for the purposes of this traffic impact analysis, LOS D has been considered to be the limit of acceptable traffic operations for the I-215 Freeway mainline segments and ramp junctions in an effort to be conservative.

2.7 PROJECT FAIR SHARE CALCULATION METHODOLOGY

Improvements found to be included in the City of Moreno Valley's DIF program and WRCOG TUMF, will be identified as such. For improvements that do not appear to be in either of the pre-existing fee programs, a fair share financial contribution based on the Project's fair share impact may be imposed in order to mitigate the Project's share of impacts in lieu of construction.

If the intersection is currently operating at acceptable LOS under Existing traffic conditions, the Project's fair share cost of improvements would be determined based on the following equation, which is the ratio of Project traffic to new traffic, where new traffic is total future traffic less existing baseline traffic:

Project Fair Share % = Project Traffic / (2020 With Project Total Traffic – Existing Traffic)

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3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Moreno Valley General Plan Circulation Network, and a review of existing peak hour intersection operations, roadway segment, and traffic signal warrant analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the scoping agreement with City of Moreno Valley staff (Appendix 1.1), the study area includes a total of 10 existing and future intersections as shown previously on Exhibit 1-2 where the Project is anticipated to contribute 50 or more peak hour trips. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF MORENO VALLEY GENERAL PLAN CIRCULATION ELEMENT

As noted previously, the Project site is located within the City of Moreno Valley. However, the study area includes intersections within the neighboring jurisdiction of Perris (e.g., study area intersections along Harley Knox Boulevard).

3.2.1 CITY OF MORENO VALLEY

The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Moreno Valley General Plan Circulation Element, are described subsequently. Exhibit 3-2 shows the City of Moreno Valley General Plan Circulation Element, and Exhibit 3-3 illustrates the City of Moreno Valley General Plan roadway cross-sections.

3.2.2 CITY OF PERRIS

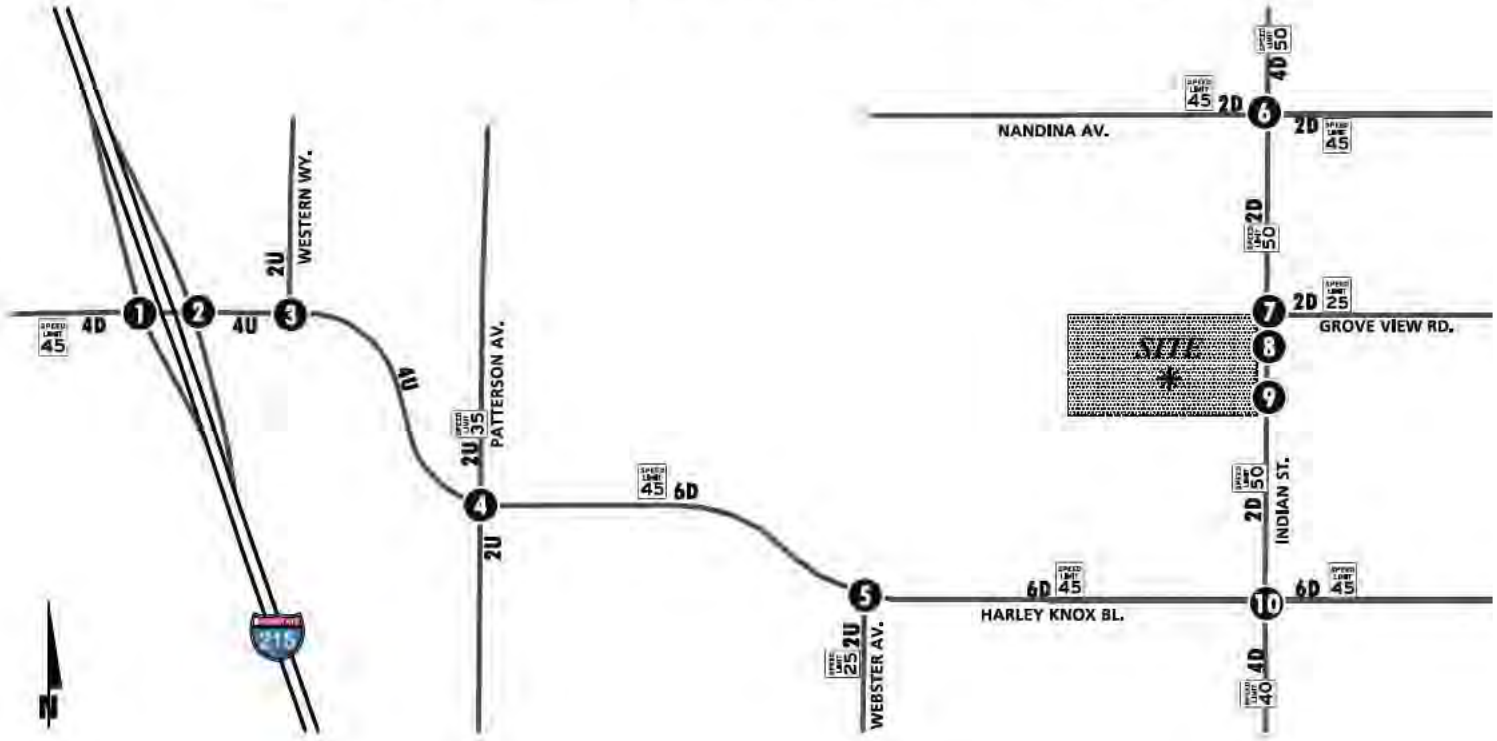
The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the City of Perris as identified in the City of Perris General Plan Circulation Element are described subsequently. The circulation plan and proposed roadway cross-sections defined within the City of Perris are shown on Exhibits 3-4 and 3-5.

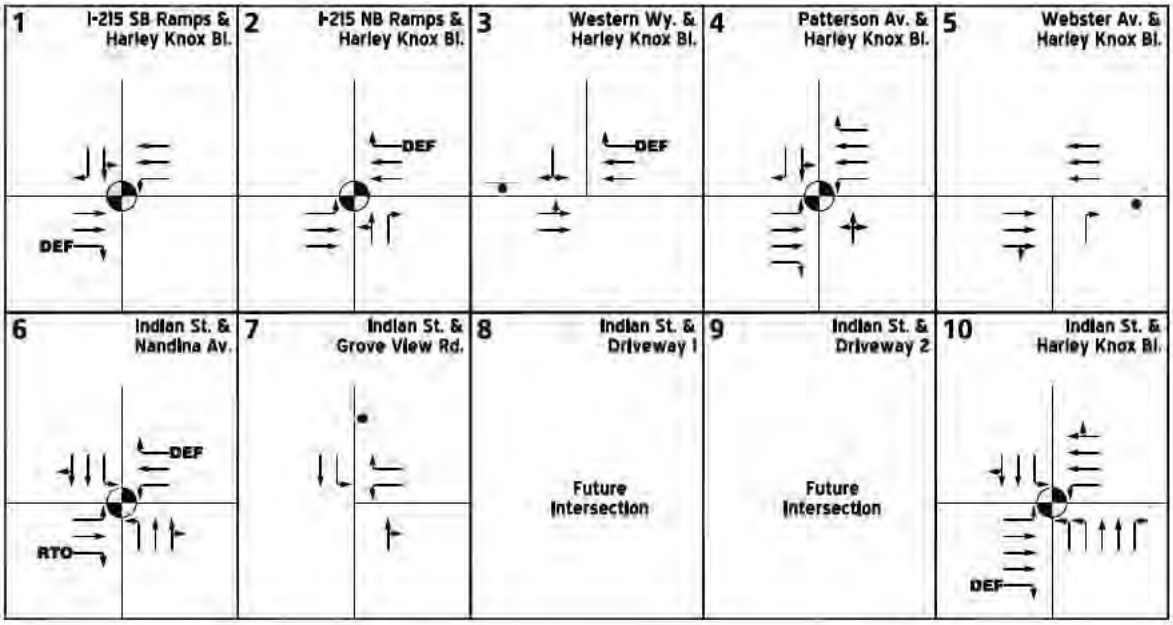
3.2.3 COUNTY OF RIVERSIDE

The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the Riverside County General Plan Circulation Element, are described subsequently. Exhibit 3-6 shows the Riverside County General Plan Circulation Element, and Exhibit 3-7 illustrates the Riverside County General Plan roadway cross-sections.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS





LEGEND:

- ● = TRAFFIC SIGNAL
- ● = STOP SIGN
- 4 = NUMBER OF LANES
- D = DIVIDED
- U = UNDIVIDED
- RTO = RIGHT TURN OVERLAP
- DEF = DEFACTO RIGHT TURN
- 25 = SPEED LIMIT (MPH)

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EXHIBIT 3-2: CITY OF MORENO VALLEY GENERAL PLAN CIRCULATION ELEMENT



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EXHIBIT 3-3: CITY OF MORENO VALLEY GENERAL PLAN ROADWAY CROSS-SECTIONS

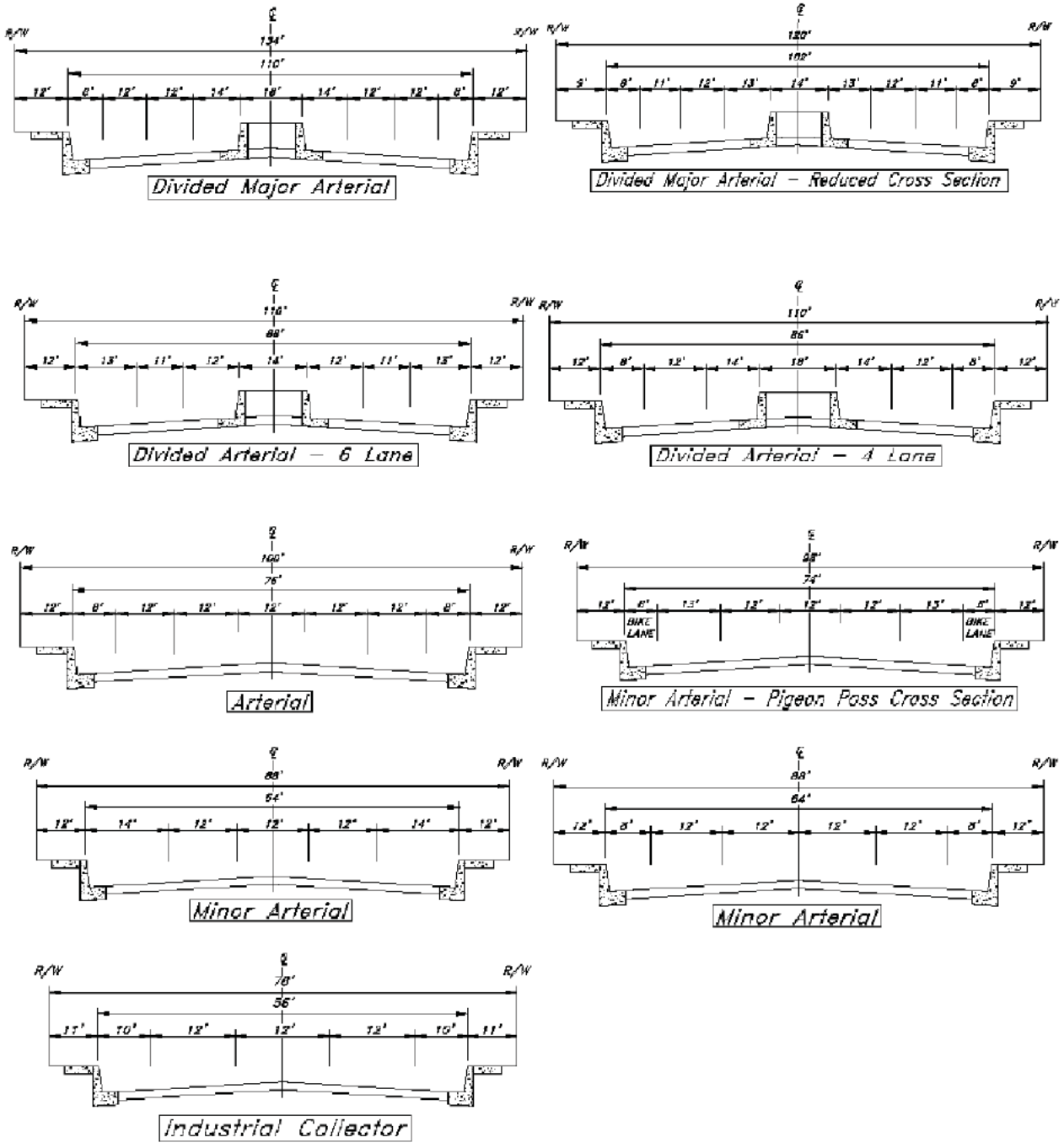

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EXHIBIT 3-4: CITY OF PERRIS GENERAL PLAN CIRCULATION ELEMENT



SOURCE: CITY OF PERRIS (June 14, 2005)

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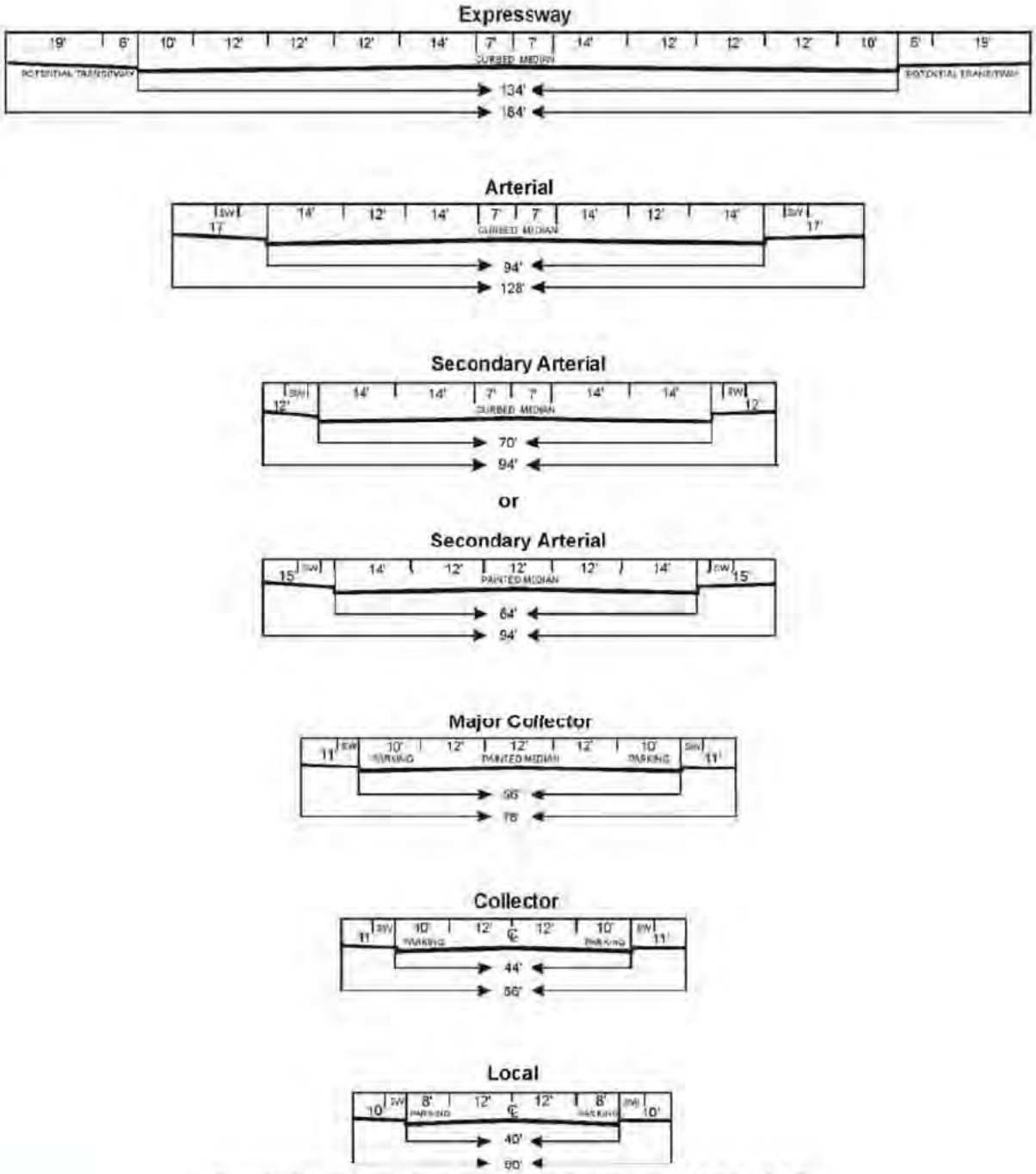
EXHIBIT 3-5: CITY OF PERRIS GENERAL PLAN ROADWAY CROSS-SECTIONS



Specific details for each cross-section follow in Figures 4.1 A - 4.1 F

Legend

SW	Sidewalk or Trail (at least 4 feet)
PARKING	Parking or Bike Lane
PAINTED MEDIAN	Center Median and/or Continuous Left Turning Lane
CURBED MEDIAN	Landscaped Center Median

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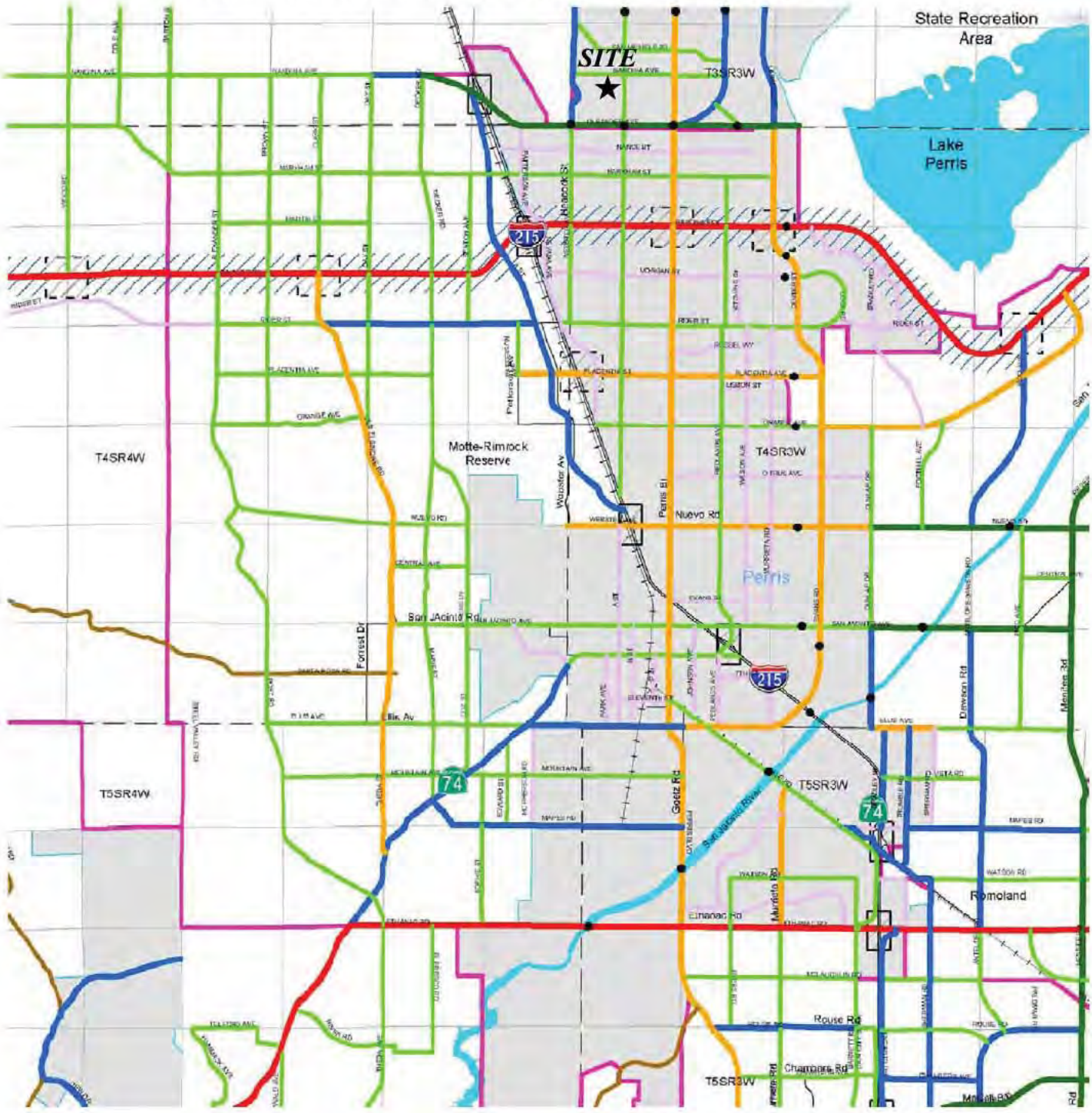
EXHIBIT 3-6: RIVERSIDE COUNTY GENERAL PLAN CIRCULATION ELEMENT



SOURCE: RIVERSIDE COUNTY INTEGRATED PROJECT (RCIP) (OCTOBER 7, 2003)

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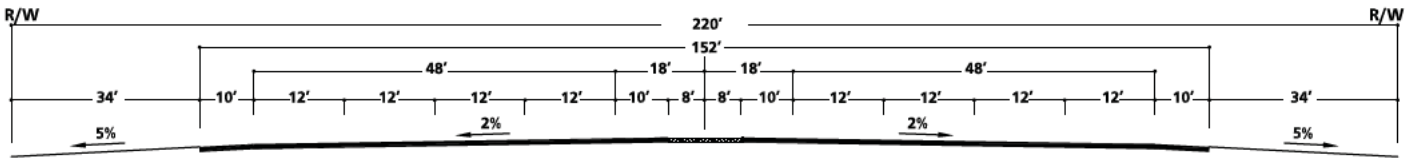
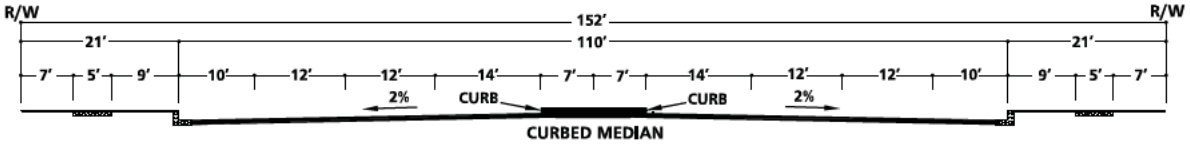
EXHIBIT 3-7: RIVERSIDE COUNTY GENERAL PLAN ROADWAY CROSS-SECTIONS

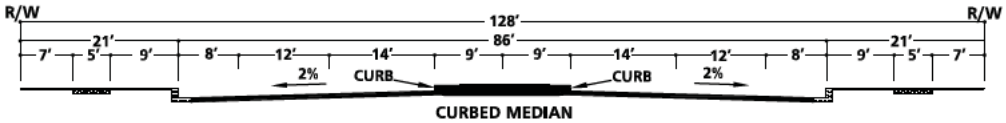


EXPRESSWAY - 8 LANES



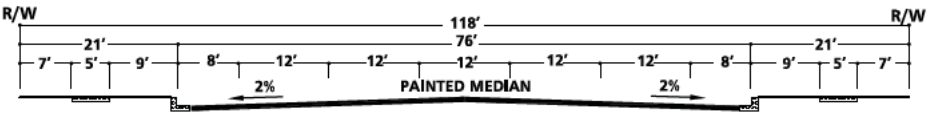
CURBED MEDIAN

URBAN ARTERIAL HIGHWAY *

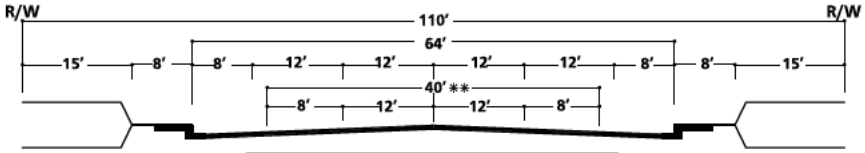


CURBED MEDIAN

ARTERIAL HIGHWAY *

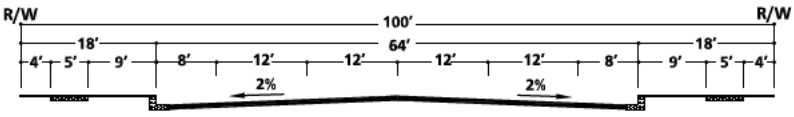


MAJOR HIGHWAY - 4 LANES

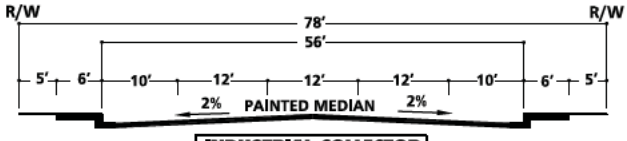


MOUNTAIN ARTERIAL - 2 TO 4 LANES

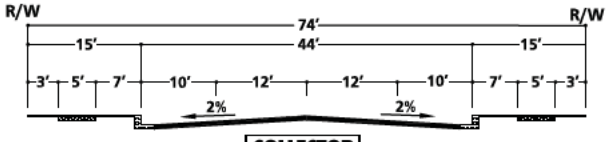
** 2 LANE SECTION



SECONDARY HIGHWAY



INDUSTRIAL COLLECTOR



COLLECTOR

* *IMPROVEMENTS MAY BE RECONFIGURED TO ACCOMMODATE EXCLUSIVE TRANSIT LANES OR ALTERNATIVE LANE ARRANGEMENTS ADDITIONAL RIGHT OF WAY MAY BE REQUIRED AT INTERSECTIONS TO ACCOMMODATE ULTIMATE IMPROVEMENTS FOR STATE HIGHWAYS SHALL CONFORM TO CALTRANS DESIGN STANDARDS.*

NOT TO SCALE

SOURCE: COUNTY OF RIVERSIDE

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

3.3 TRUCK ROUTES

While the City of Moreno Valley's General Plan recognizes the trucking industry and the importance of the region's role in the movement of goods, there are no truck routes defined within the County. Exhibit 3-8 shows the existing truck routes throughout the City of Moreno Valley. Based on the exhibit, Perris Boulevard and Nandina Avenue are roadways within the study area identified as truck routes. The City of Perris also has a designated truck route map in their General Plan, which is shown on Exhibit 3-9. As shown, Harley Knox Boulevard, east of the I-215 Freeway, Perris Boulevard, and Indian Street, are identified as designated City of Perris truck routes within the study area.

3.4 TRANSIT SERVICE

The study area is currently served by the Riverside Transit Authority (RTA), a public transit agency serving the unincorporated Riverside County region. As shown on Exhibit 3-10, RTA Route 19 is the only existing bus route that serves a roadway within the study area in close proximity to the proposed Project. RTA Route 19 serves Perris Boulevard throughout the study area.

Transit service is reviewed and updated by RTA periodically to address ridership, budget, and community demands Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate.

3.5 BICYCLE & PEDESTRIAN FACILITIES

In an effort to promote alternative modes of transportation, the City of Moreno Valley also includes a trails and bikeway system. The City of Moreno Valley trails and bikeway system are shown on Exhibit 3-11 and Exhibit 3-12. There are no trails planned near the vicinity of the proposed Project; however, Indian Street is a Class III bike route.

Field observations conducted in December 2015 indicate nominal pedestrian and bicycle activity within the study area. Exhibit 3-13 illustrates the existing pedestrian facilities, including sidewalks and crosswalk locations.

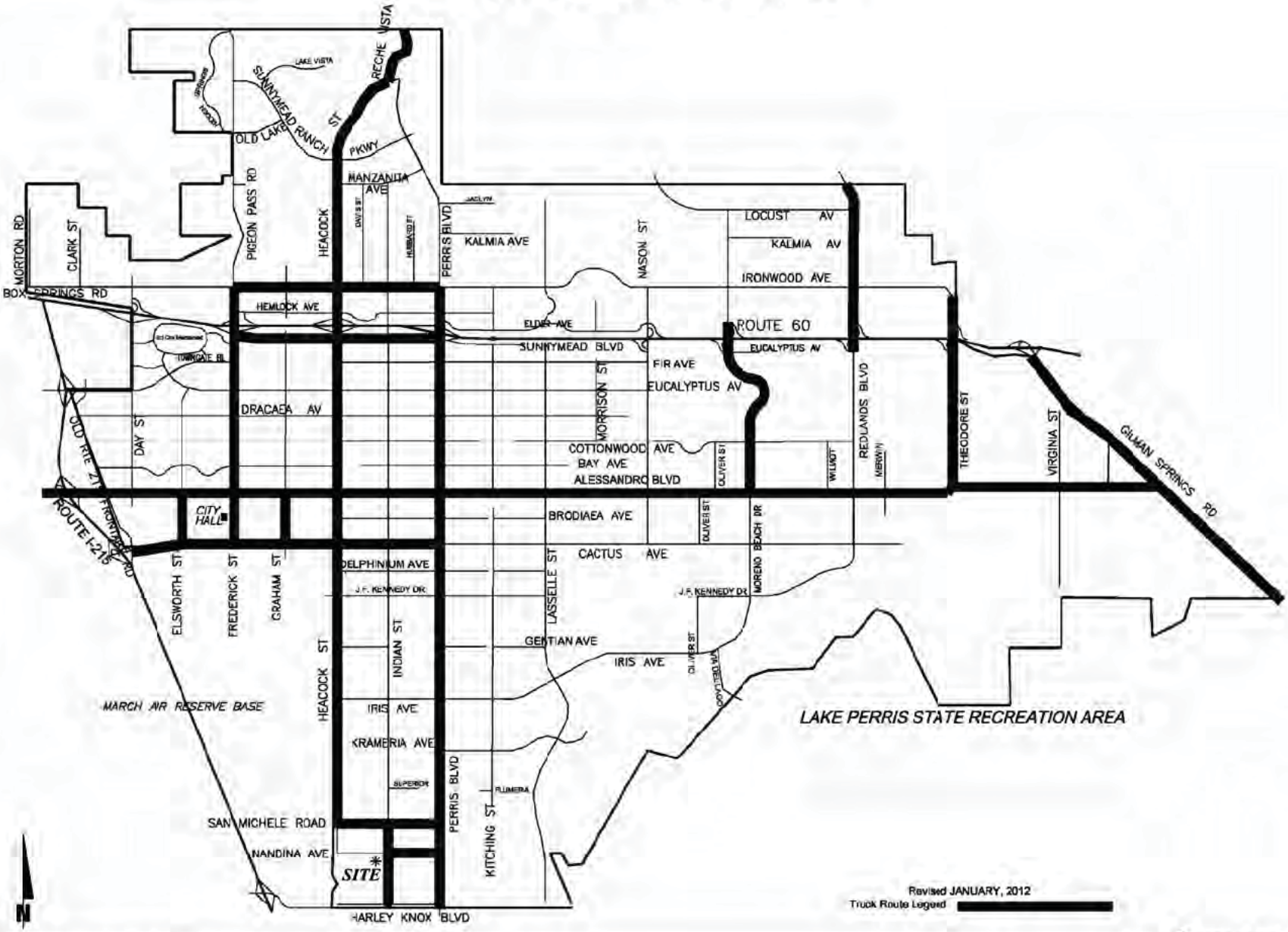
3.6 EXISTING (2015) TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in April 2015. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

EXHIBIT 3-8: EXISTING TRUCK ROUTES



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URBAN CROSSROADS

EXHIBIT 3-9: CITY OF PERRIS TRUCK ROUTES



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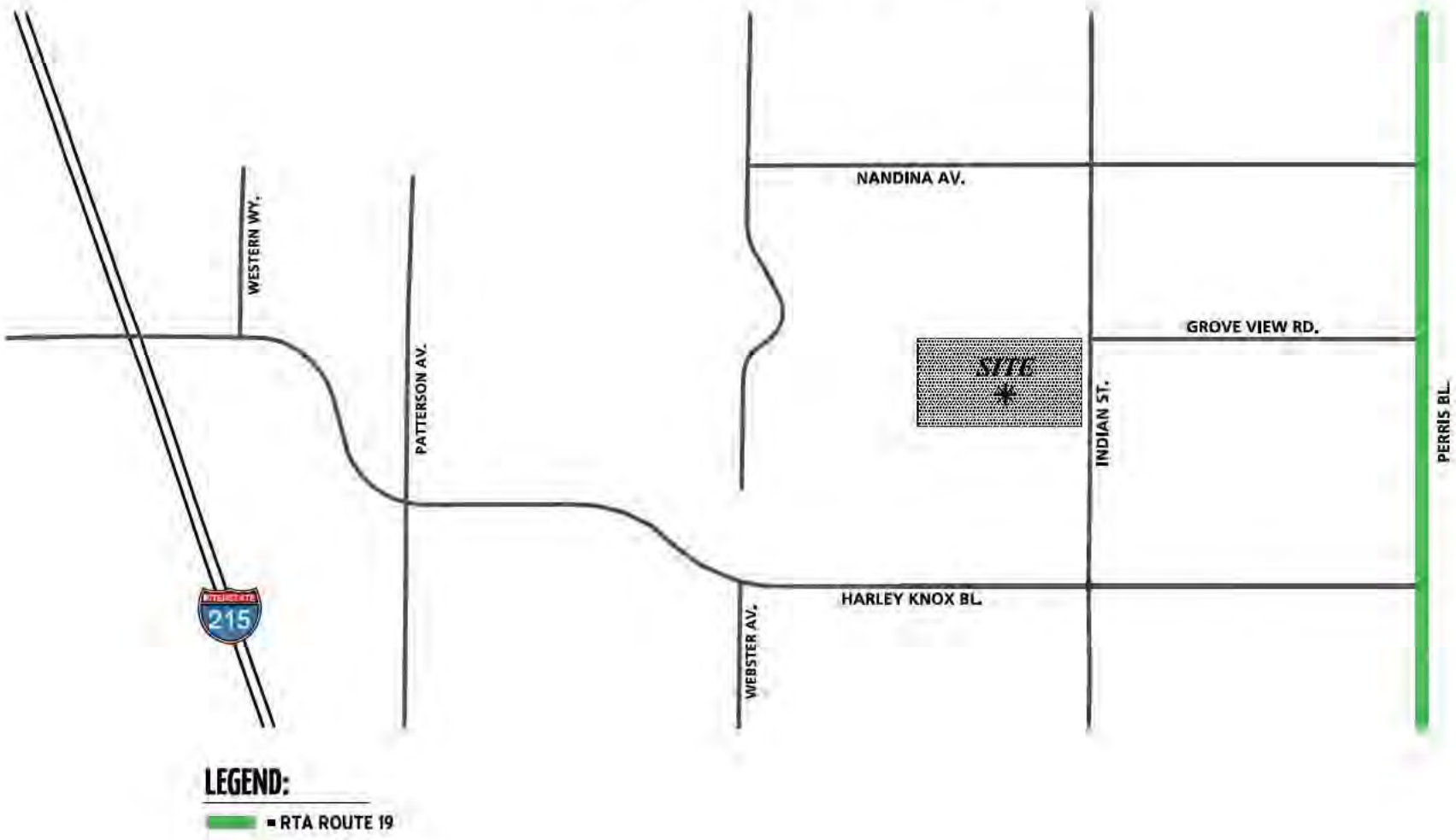
EXHIBIT 3-10: EXISTING TRANSIT ROUTES



SOURCE: RIVERSIDE TRANSIT AGENCY SYSTEM MAP

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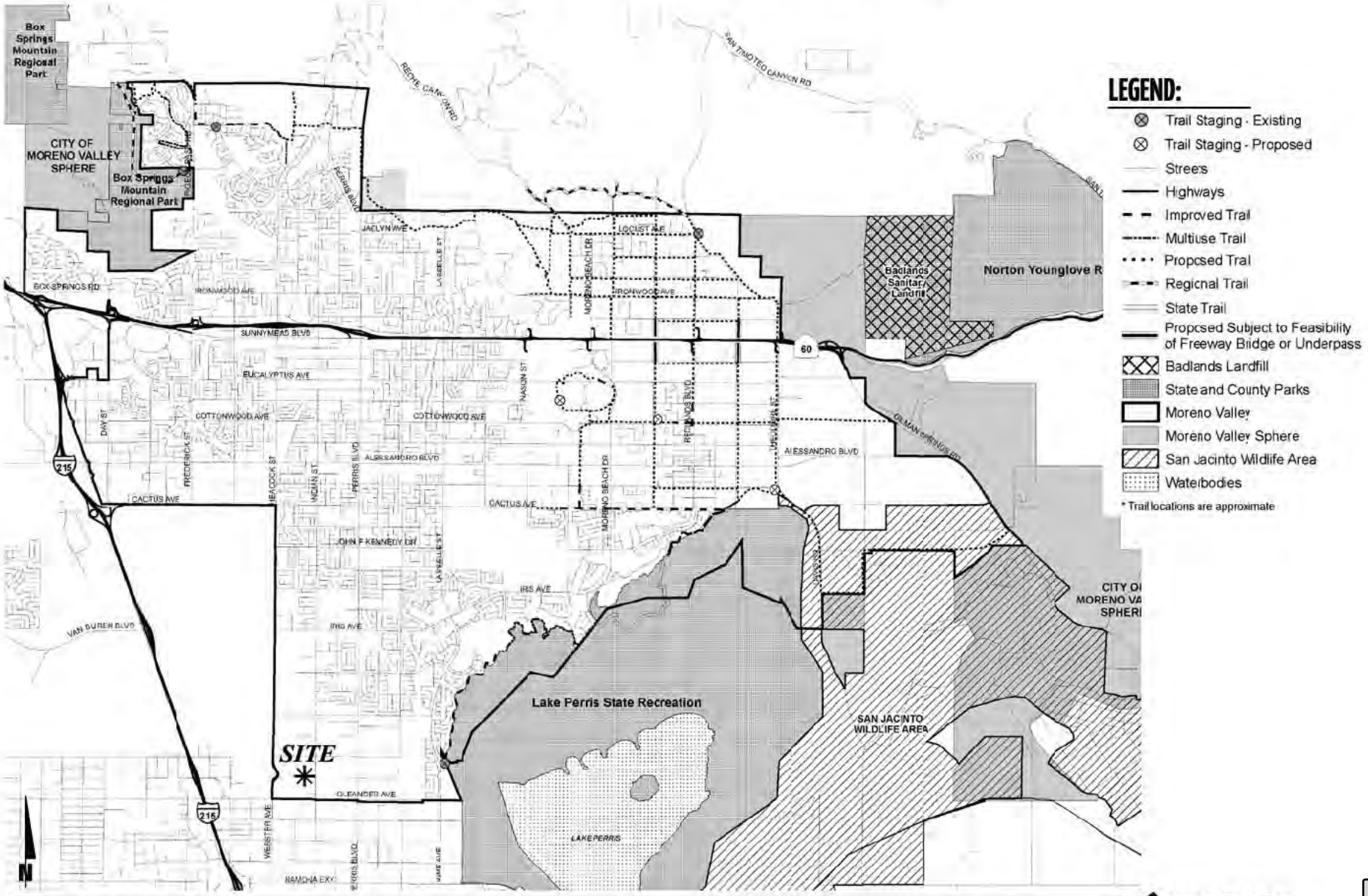
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

EXHIBIT 3-11: CITY OF MORENO VALLEY MASTER PLAN OF TRAILS



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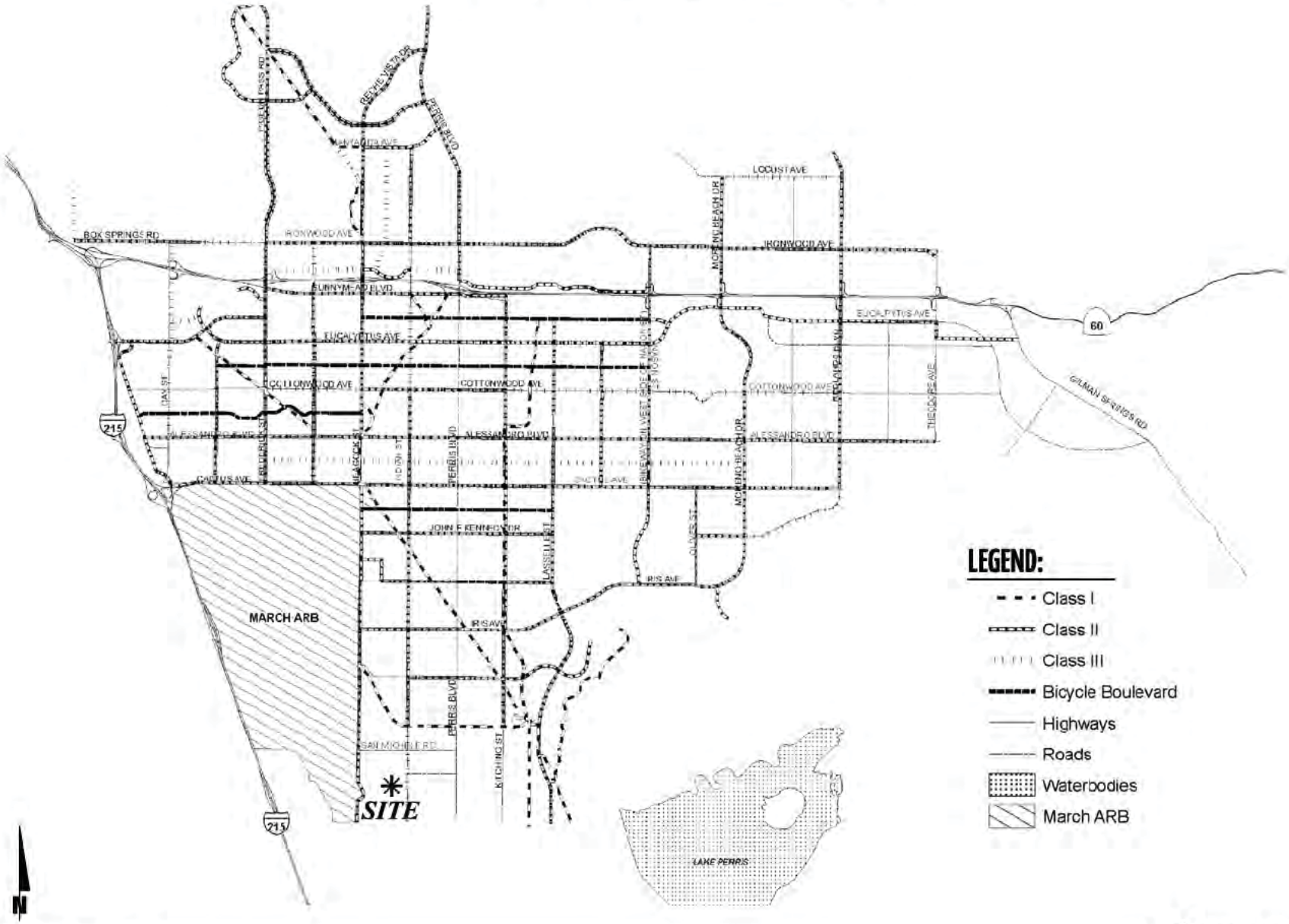
URBAN CROSSROADS

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

EXHIBIT 3-12: CITY OF MORENO VALLEY BIKE PLAN



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URBAN CROSSROADS

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

EXHIBIT 3-13: EXISTING PEDESTRIAN FACILITIES



The weekday AM and weekday PM peak hour count data is representative of typical weekday peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity or detour routes and near-by schools were in session and operating on normal schedules. It should be noted that traffic counts were conducted after the completion of the City of Perris' Harley Knox Boulevard widening project from east of Western Way to Perris Boulevard.

The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. These raw turning volumes have been flow conserved between intersections with limited access, no access, and where there are currently no uses generating traffic (e.g., between ramp-to-arterial intersections, etc.). The traffic counts collected in December 2015 include the vehicle classifications as shown below:

- Passenger Cars
- 2-Axle Trucks
- 3-Axle Trucks
- 4 or More Axle Trucks

To represent the impact large trucks, buses, and recreational vehicles have on traffic flow, all trucks were converted into PCEs. By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for them to accelerate and slow-down is also much longer than for passenger cars and varies depending on the type of vehicle and number of axles. For the purpose of this analysis, a PCE factor of 1.5 has been applied to 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axle trucks to estimate each turning movement. These factors are consistent with the values recommended for use in the San Bernardino County CMP and are in excess of the factor recommended for use in the County of Riverside traffic study guidelines. (10) Although the County of Riverside has a recommended PCE factor of 2.0, the San Bernardino County CMP PCE factors have been utilized in an effort to conduct a more conservative analysis.

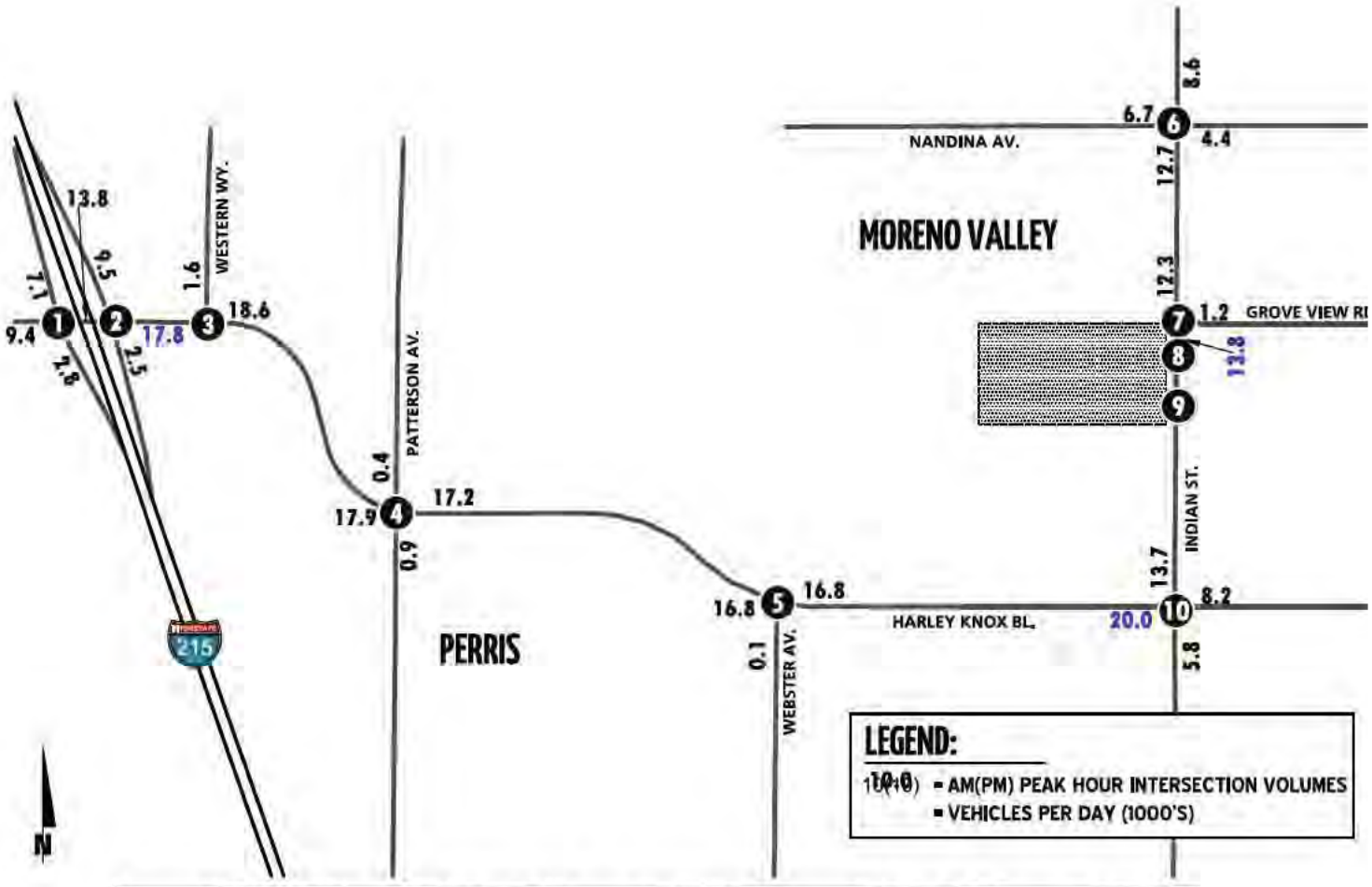
Existing weekday average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on Exhibit 3-14. Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

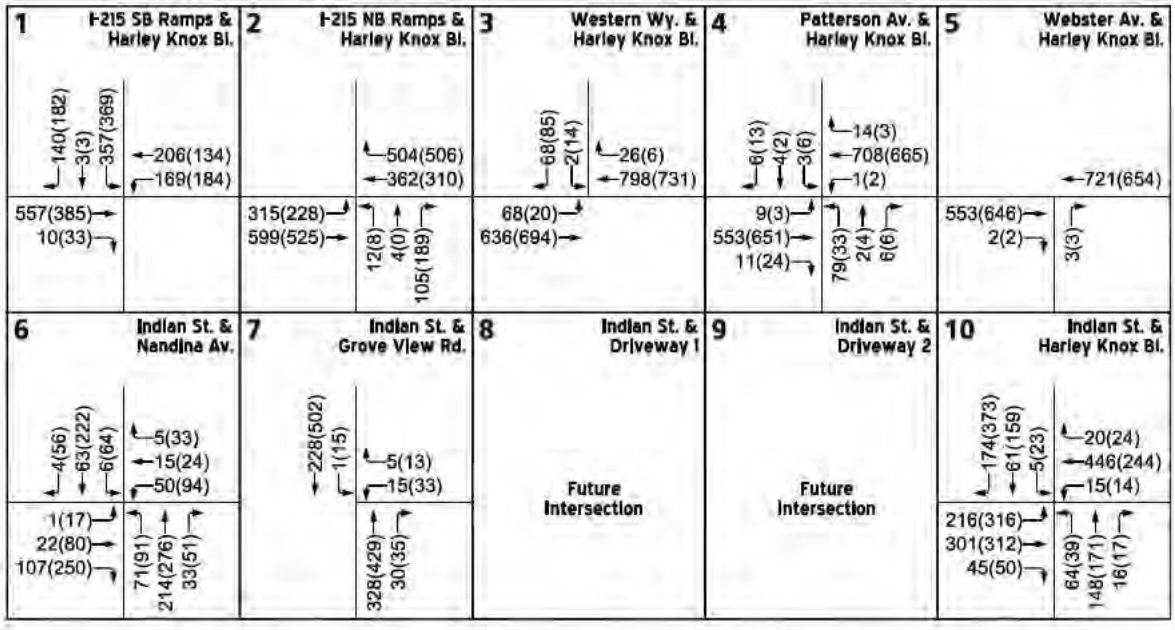
Weekday PM Peak Hour (Approach Volume + Exit Volume) x 12.8795 = Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 7.76 percent. As such, the above equation utilizing a factor of 12.8795 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 7.76 percent (i.e., 1/0.0776 = 12.8795) and was assumed to sufficiently estimate average daily traffic (ADT) volumes for planning-level analyses. Existing weekday AM and weekday PM peak hour intersection volumes (in PCE) are also shown on Exhibit 3-14.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

EXHIBIT 3-14: EXISTING (2015) TRAFFIC VOLUMES





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3.7 INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 Intersection Capacity Analysis of this report. The intersection operations analysis results are summarized in Table 3-1 which indicates that there are no existing study area intersections currently operating at an unacceptable LOS during the peak hours (i.e., LOS C or better).

Consistent with Table 3-1, a summary of the peak hour intersection LOS for Existing conditions are shown on Exhibit 3-15. The intersection operations analysis worksheets are included in Appendix 3.2 of this TIA.

3.8 EXISTING CONDITIONS ROADWAY SEGMENT CAPACITY ANALYSIS

The City of Moreno Valley General Plan Circulation Element provides roadway volume capacity values presented previously on Table 2-3. The roadway segment capacities are approximate figures only and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 3-2 provides a summary of the Existing (2015) conditions roadway segment capacity analysis based on the City of Moreno Valley and City of Perris General Plan Circulation Element Roadway Segment Capacity/ (LOS) Thresholds identified previously on Table 2-3. As shown on Table 3-2, all the study area roadway segments currently operate at an acceptable LOS based on the City's planning level daily roadway capacity thresholds (i.e., LOS C or better).

3.9 OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the I-215 Freeway Harley Knox Boulevard interchanges to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-215 Freeway mainline. Queuing analysis findings are presented in Table 3-3. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown on Table 3-3, there are no movements that are currently experiencing queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows. Worksheets for Existing traffic conditions off-ramp queuing analysis are provided in Appendix 3.3.

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Table 3-1

Intersection Analysis for Existing (2015) Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	I-215 SB Ramps / Harley Knox Bl	TS	0	0	0	0	1	1	0	2	d	1	2	0	29.1	32.9	C	C
2	I-215 NB Ramps / Harley Knox Bl	TS	0	1	1	0	0	0	1	2	0	0	2	d	19.3	18.4	B	B
3	Western Wy / Harley Knox Bl	CSS	0	0	0	0	1	0	0	2	0	0	2	d	13.9	14.0	B	B
4	Patterson Av / Harley Knox Bl	TS	0	1	0	0	1	1	1	2	1	1	2	1	19.9	20.2	B	C
5	Webster Av / Harley Knox Bl	CSS	0	0	1	0	0	0	0	3	0	0	3	0	9.5	9.6	A	A
6	Indian St / Nandina Av	TS	1	2	0	1	2	0	1	1	1>	1	1	d	18.9	25.8	B	C
7	Indian St / Grove View Rd	CSS	0	1	0	1	1	0	0	0	0	1	0	1	12.0	18.6	B	C
8	Indian St / Driveway 1		Future Intersection															
9	Indian St / Driveway 2		Future Intersection															
10	Indian St / Harley Knox Bl	TS	2	2	1	1	2	0	1	3	d	1	3	0	16.8	24.2	B	C

L = Left; T = Through; R = Right; d= Defacto Right Turn Lane; > = Right Turn Overlap Phasing

CSS = Cross-street Stop; TS = Traffic Signal

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

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Table 3-2

Roadway Volume/Capacity Analysis for Existing (2015) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS[3] Capacity[1]	Existing (2015)	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	35,900	13,787	0.38	A	D
2		I-215 NB Ramps to Western Way	4D	35,900	17,815	0.50	A	D
3		East of Western Way	4U	25,900	18,604	0.72	C	D
4		West of Patterson Avenue	4U	25,900	17,864	0.69	B	D
5		East of Patterson Avenue	6D	53,900	17,155	0.32	A	D
6		West of Webster Avenue	6D	53,900	16,756	0.31	A	D
7		East of Webster Avenue	6D	53,900	16,769	0.31	A	D
8		West of Indian Street	6D	53,900	20,018	0.37	A	D
9	Indian Street	South of Nandina Avenue	2D	18,750	12,654	0.67	B	D
10		North of Grove View Road	2D	18,750	12,339	0.66	B	D
11		South of Grove View Road	2D	18,750	13,803	0.74	C	D
12		North of Harley Knox Boulevard	4D	35,900	13,717	0.38	A	D

[1] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007) and Table CE-9 of the City of Perris General Plan Circulation Element.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

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Table 3-3

Peak Hour Off-Ramp Queuing Analysis for Existing (2015) Conditions

Intersection	Movement	Stacking Distance (Feet)	95th Percentile Stacking Distance Required (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps / Harley Knox Bl.	SBL/T	1,330	361	366	Yes	Yes
	SBR	270	45	46	Yes	Yes
I-215 NB Ramps / Harley Knox Bl.	NBL/T	1,120	35	21	Yes	Yes
	NBR	265	49	52	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

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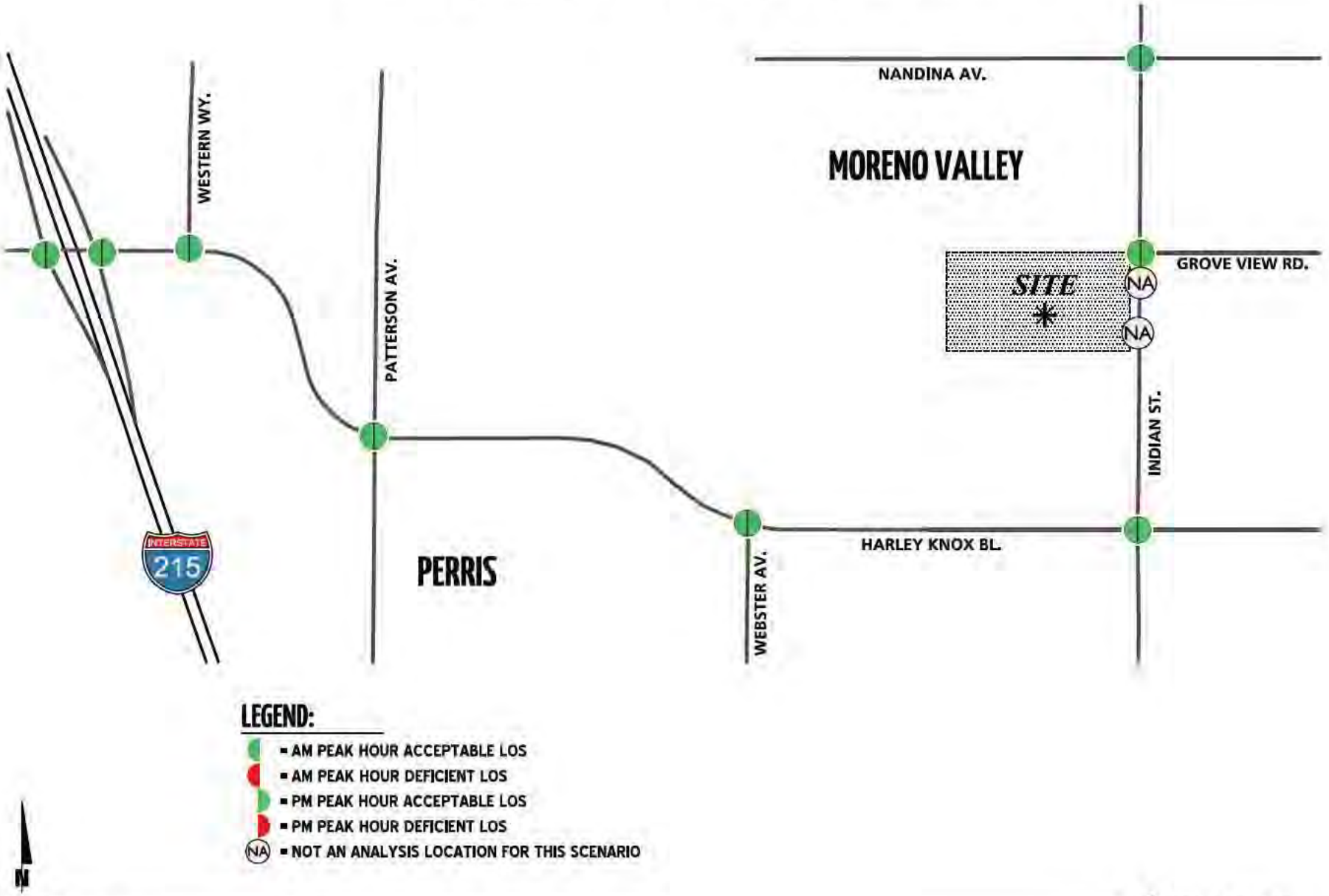
EXHIBIT 3-15: SUMMARY OF LOS FOR EXISTING (2015) CONDITIONS



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3.10 Traffic Signal Warrants Analysis

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. The following study area intersection currently warrants a traffic signal for Existing traffic conditions:

ID	Intersection Location	Jurisdiction	CMP?
3	Western Way / Harley Knox Boulevard	Perris	No

However, this intersection is currently operating at acceptable LOS as a cross-street stop controlled intersection. Existing conditions traffic signal warrant analysis worksheets are provided in Appendix 3.4.

3.11 Recommended Improvements

3.11.1 Recommended Improvements to Address Deficiencies at Intersections

All study area intersections are anticipated to operate at acceptable LOS (LOS C or better) for Existing (2015) traffic conditions. As such, no intersection improvements have been recommended.

3.11.2 Recommended Improvements to Address Deficiencies on Roadway Segments

All study area roadway segments are anticipated to operate at acceptable LOS (LOS C or better) for Existing (2015) traffic conditions. As such, no roadway improvements have been recommended.

3.11.3 Recommended Improvements to Address Off-Ramp Queues

As shown previously on Table 3-3, there are no peak hour queuing issues at the I-215 Freeway at Harley Knox Boulevard interchanges. As such, no improvements have been recommended.

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4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment, onto the study area roadway network. The Project is proposed to consist of a total of 446,350 square feet, of which 357,080 square feet (sf) would be allocated to High-Cube Warehouse / Distribution Center use and 89,270 sf to Manufacturing use within a single building. Per the City's traffic study guidelines, the Opening Year will have a 5-year minimum horizon. As such, the Opening Year analysis will assess 2020 traffic conditions.

The Project is proposed to have access on Indian Street via Driveway 1 and Driveway 2. Both driveways are proposed to allow for full access. Driveway 1 is proposed to serve passenger cars, while trucks would utilize Driveway 2. Driveway 1 is proposed to align with the proposed future driveway on the east side of Indian Street. Regional access to the project site is provided via the I-215 Freeway at Harley Knox Boulevard interchanges.

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development. The ITE Trip Generation manual is a nationally recognized source for estimating site specific trip generation. ITE's most current version of the Trip Generation manual is based on more than 4,800 trip generation studies submitted to ITE by public agencies, consulting firms, universities/colleges, developers, associations, and local sections/districts/student chapters of ITE. (3) In an effort to provide flexibility for the future development of the Project, the trip generation has been estimated assuming a mix of 80 percent high-cube warehouse/distribution center use and 20 percent manufacturing use. The trip generation is anticipated to be more conservative for this mix of uses in comparison to 100 percent high-cube warehouse/distribution center use.

4.1.1 HIGH-CUBE WAREHOUSE/DISTRIBUTION CENTER LAND USE

High-cube warehouse/distribution centers (ITE Land Use Code 152) are a unique land use type within the larger, more generalized industrial land use category. ITE's most recent edition of the Trip Generation manual (ITE 9th Edition), published in 2012, defines "high-cube warehouses" as *"…used for storage of materials, goods and merchandise prior to their distribution to retail outlets, distribution centers or other warehouses. These facilities are typically characterized by ceiling heights of at least 24 feet with small employment counts due to a high level of mechanization."* The average square footage for the sites surveyed for high-cube warehouse/distribution center (Land Use 152) use is above 500,000 square feet. The number of sites observed in the compilation of this data ranges from 57-70 sites of which more than 20 sites exceed 1,000,000 square feet in gross floor area. The weighted average daily trip generation rate for high-cube warehouse (Land Use 152) use is 1.68 trips per thousand square feet (TSF).

The ITE Trip Generation manual includes data regarding the types of vehicles that are generated (passenger cars and trucks), but provides no guidance on vehicle mix (different sizes of trucks).

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While trucks, as a percentage of total traffic, has been based on the ITE Trip Generation manual, data regarding the vehicle mix has been obtained from a separate report: The South Coast Air Quality Management District's (SCAQMD) recent Warehouse Truck Trip Study. (11) (12) The SCAQMD is currently recommending the use of the ITE Trip Generation manual in conjunction with their truck mix by axle-type to better quantify trip rates associated with local warehouse and distribution projects, as truck emission represent more than 90 percent of air quality impacts from these projects. This recommended procedure has been utilized for the purposes of this analysis in effort to be consistent with other technical studies prepared for the Project.

As noted on Table 4-1, refinements to the raw trip generation estimates have been made to provide a more detailed breakdown of trips between passenger cars and trucks. The percentage of trucks has been determined from the table shown on page 267 of the ITE Trip Generation manual. As shown on page 267, the truck trip generation rate for weekday daily traffic is 0.64, or 38.1%, of the total traffic. Similarly, the truck trip generation rate for the weekday AM peak hour is 0.03 (27.3% of the total traffic) and 0.04 (or 33.3% of the total traffic) for the weekday PM peak hour.

Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks. For the purposes of this analysis, the percentage of trucks, by axle type, were obtained from the SCAQMD interim recommended truck mix. The SCAQMD has recently performed surveys of existing facilities and compiled the data to provide interim guidance on the mix of heavy trucks for these types of high-cube warehousing/distribution facilities. Based on this interim guidance from the SCAQMD, the following truck fleet mix was utilized for the purposes of estimating the truck trip generation for the site: 22.0% of the total trucks as 2-axle trucks, 17.7% of the total trucks as 3-axle trucks, and 60.3% of the total trucks as 4+-axle trucks. Lastly, PCE factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles).

4.1.2 MANUFACTURING LAND USE

Manufacturing facilities (ITE Land Use Code 140) are areas where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research and associated functions.

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Table 4-1

Project Trip Generation Rates (PCE)

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Manufacturing[3,5]	TSF	140	0.570	0.160	0.730	0.260	0.470	0.730	3.820
Passenger Cars			0.349	0.098	0.447	0.159	0.288	0.447	2.338
2-Axle Trucks			0.052	0.015	0.067	0.024	0.043	0.067	0.350
3-Axle Trucks			0.145	0.041	0.185	0.066	0.119	0.185	0.970
4-Axle+ Trucks			0.340	0.096	0.436	0.155	0.281	0.436	2.281
High-Cube Warehouse/Distribution Center[4,5]	TSF	152	0.076	0.034	0.110	0.037	0.083	0.120	1.680
Passenger Cars			0.055	0.025	0.080	0.025	0.055	0.080	1.040
2-Axle Trucks			0.007	0.003	0.010	0.004	0.009	0.013	0.211
3-Axle Trucks			0.007	0.003	0.011	0.004	0.010	0.014	0.226
4-Axle+ Trucks			0.037	0.017	0.054	0.022	0.050	0.072	1.158

Project Trip Generation Rates (Actual Vehicles)

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Manufacturing[3]	TSF	140	0.570	0.160	0.730	0.260	0.470	0.730	3.820
Passenger Cars			0.349	0.098	0.447	0.159	0.288	0.447	2.338
2-Axle Trucks			0.035	0.010	0.045	0.016	0.029	0.045	0.233
3-Axle Trucks			0.072	0.020	0.093	0.033	0.060	0.093	0.485
4-Axle+ Trucks			0.113	0.032	0.145	0.052	0.094	0.145	0.760
High-Cube Warehouse/Distribution Center[4]	TSF	152	0.076	0.034	0.110	0.037	0.083	0.120	1.680
Passenger Cars			0.055	0.025	0.080	0.025	0.055	0.080	1.040
2-Axle Trucks			0.005	0.002	0.007	0.003	0.006	0.009	0.141
3-Axle Trucks			0.004	0.002	0.005	0.002	0.005	0.007	0.113
4-Axle+ Trucks			0.012	0.006	0.018	0.007	0.017	0.024	0.386

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Ninth Edition (2012).

[2] TSF = thousand square feet

[3] Vehicle Mix Source: City of Fontana Truck Trip Generation Study for LU 110, Heavy Industrial, August 2003.

[4] Vehicle Mix Source: Total truck percentage source from ITE Trip Generation manual. Truck mix (by axle type) source from SCAQMD.
AM peak hour = 72.7% passenger cars, 6.01% 2-Axle trucks, 4.83% 3-Axle trucks, 16.46% 4-Axle trucks
PM peak hour = 66.7% passenger cars, 7.33% 2-Axle trucks, 5.89% 3-Axle trucks, 20.08% 4-Axle trucks
ADT = 61.9% passenger cars, 8.38% 2-Axle trucks, 6.74% 3-Axle trucks, 22.98% 4-Axle trucks

[5] PCE rates are per SANBAG.

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The City of Fontana's Truck Trip Generation Study does not include vehicle mix percentages for ITE Land Use Code 140, as such, the vehicle mix for Heavy Industrial (Land Use Code 110 have been utilized. The ITE Trip Generation manual includes data regarding the types of vehicles that are generated (passenger cars and trucks), but provides no guidance on vehicle mix (different sizes of trucks). Total vehicle mix percentages were obtained from the City of Fontana's Truck Trip Generation Study for Heavy Industrial (Land Use Code 110). (13) PCE factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCE factors are consistent with the recommended PCE factors in Appendix "C" of the San Bernardino County CMP, 2005 Update.

4.1.3 PROJECT TRIP GENERATION

Trip generation rates used to estimate Project traffic are shown in Table 4-1 in both PCE and actual vehicles. A summary of the Project's trip generation based on PCE is shown in Table 4-2, while the trip generation based on actual vehicles is shown on Table 4-3 (for comparative purposes). For purposes of this analysis, ITE land use code 140 (Manufacturing) and 152 (High-Cube Warehousing) have been used to derive site specific trip generation estimates. In order to accurately reflect the impact that heavy trucks would have on the street system, Project trips have been further broken down between passenger cars and trucks for each of the peak hours and weekday daily trip generation.

As directed by the City of Moreno Valley and consistent with standard traffic engineering practice in Southern California, PCE factors have been utilized due to the expected heavy truck component for the proposed Project uses. PCEs allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses. These PCE factors are consistent with the values recommended by the San Bernardino County CMP and are accepted factors in the City of Moreno Valley. (10) Although the County of Riverside has a recommended PCE factor of 2.0, the San Bernardino County CMP PCE factors have been utilized in an effort to conduct a more conservative analysis. A PCE factor of 1.5 has been applied to 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axle trucks.

As shown on Table 4-2, the proposed Project is anticipated to generate a net total of 1,472 PCE trip-ends per day with 157 net PCE AM peak hour trips and 166 net PCE PM peak hour trips.

4.2 PROJECT TRIP DISTRIBUTION

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered to identify the route where the Project traffic would distribute.

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Table 4-2

Project Trip Generation Summary (PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Manufacturing	89.270	TSF							
Passenger Cars:			31	9	40	14	26	40	209
Truck Trips:									
2-axle:			*5*	*1*	*6*	*2*	*4*	*6*	*31*
3-axle:			*13*	*4*	*17*	*6*	*11*	*17*	*87*
4+-axle:			*30*	*9*	*39*	*14*	*25*	*39*	*204*
- Net Truck Trips (PCE) [2]			*48*	*14*	*62*	*22*	*40*	*62*	*322*
High-Cube Warehouse	357.080	TSF							
Passenger Cars:			20	9	29	9	20	29	371
Truck Trips:									
2-axle:			*2*	*1*	*3*	*1*	*3*	*4*	*75*
3-axle:			*3*	*1*	*4*	*2*	*3*	*5*	*81*
4+-axle:			*13*	*6*	*19*	*8*	*18*	*26*	*414*
- Net Truck Trips (PCE) [2]			*18*	*8*	*26*	*11*	*24*	*35*	*570*
TOTAL NET TRIPS (PCE)[3]			**117**	**40**	**157**	**56**	**110**	**166**	**1,472**

[1] TSF = thousand square feet

[2] Vehicle Mix Source: Total truck percentage source from ITE Trip Generation manual. Truck mix (by axle type) source from SCAQMD.

[3] TOTAL NET TRIPS (PCE) = Passenger Cars + Net Truck Trips (PCE).

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Table 4-3

Project Trip Generation Summary (Actual Vehicles)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Manufacturing	89.270	TSF							
Passenger Cars:			31	9	40	14	26	40	209
Truck Trips:									
2-axle:			*3*	*1*	*4*	*1*	*3*	*4*	*21*
3-axle:			*6*	*2*	*8*	*3*	*5*	*8*	*43*
4+-axle:			*10*	*3*	*13*	*5*	*8*	*13*	*68*
- Net Truck Trips			*19*	*6*	*25*	*9*	*16*	*25*	*132*
High-Cube Warehouse	357.080	TSF							
Passenger Cars:			20	9	29	9	20	29	371
Truck Trips:									
2-axle:			*2*	*1*	*3*	*1*	*2*	*3*	*50*
3-axle:			*1*	*1*	*2*	*1*	*2*	*3*	*40*
4+-axle:			*4*	*2*	*6*	*3*	*6*	*9*	*138*
- Net Truck Trips			*7*	*4*	*11*	*5*	*10*	*15*	*228*
TOTAL NET TRIPS (ACTUAL VEHICLES)[2]			**77**	**28**	**105**	**37**	**72**	**109**	**940**

[1] TSF = thousand square feet

[2] TOTAL NET TRIPS (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks).

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The Project trip distribution was developed based on anticipated travel patterns to and from the Project site for both passenger cars and truck traffic. The truck trip distribution patterns have been developed based on the anticipated travel patterns for the high-cube warehousing trucks. The Project trip distribution patterns for both passenger cars and trucks were developed based on an understanding of existing travel patterns in the area, the geographical location of the site, and the site's proximity to the regional arterial and state highway system.

The passenger car trip distributions utilized for the purposes of this analysis are shown on Exhibit 4-1, and truck trip distributions are shown on Exhibit 4-2. Majority of the inbound trucks are anticipated to be originating from the ports. As such, 95% of the inbound truck trips are expected to come via SR-60 to I-215 southbound. However, the outbound trucks are anticipated to be distributed throughout the region. Although the Project is anticipated to send both passenger car and truck traffic east on Nandina Avenue and east on Grove View Road, additional study area intersections were not identified as the Project is anticipated to contribute less than 50 peak hour trips.

4.3 MODAL SPLIT

The traffic reducing potential of public transit, walking, or bicycling have not been considered in this TIA. Essentially, the traffic projections are "conservative" in that these alternative travel modes might be able to reduce the forecasted traffic volumes (employee trips only).

4.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project ADT and peak hour intersection turning movement volumes are shown on Exhibit 4-3 in PCE.

4.5 BACKGROUND TRAFFIC

To account for growth in traffic between Existing Conditions (2015) and the Project Opening Year (2020), a compounded annual traffic growth rate of 2 percent was assumed (10.41 percent aggregate growth in background traffic for the period 2015—2020). The 2 percent annual growth rate is intended to capture non-specific ambient traffic growth.

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EXHIBIT 4-1: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION



LEGEND:

10 = PERCENT TO/FROM PROJECT

N

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Packet Pg. 1471

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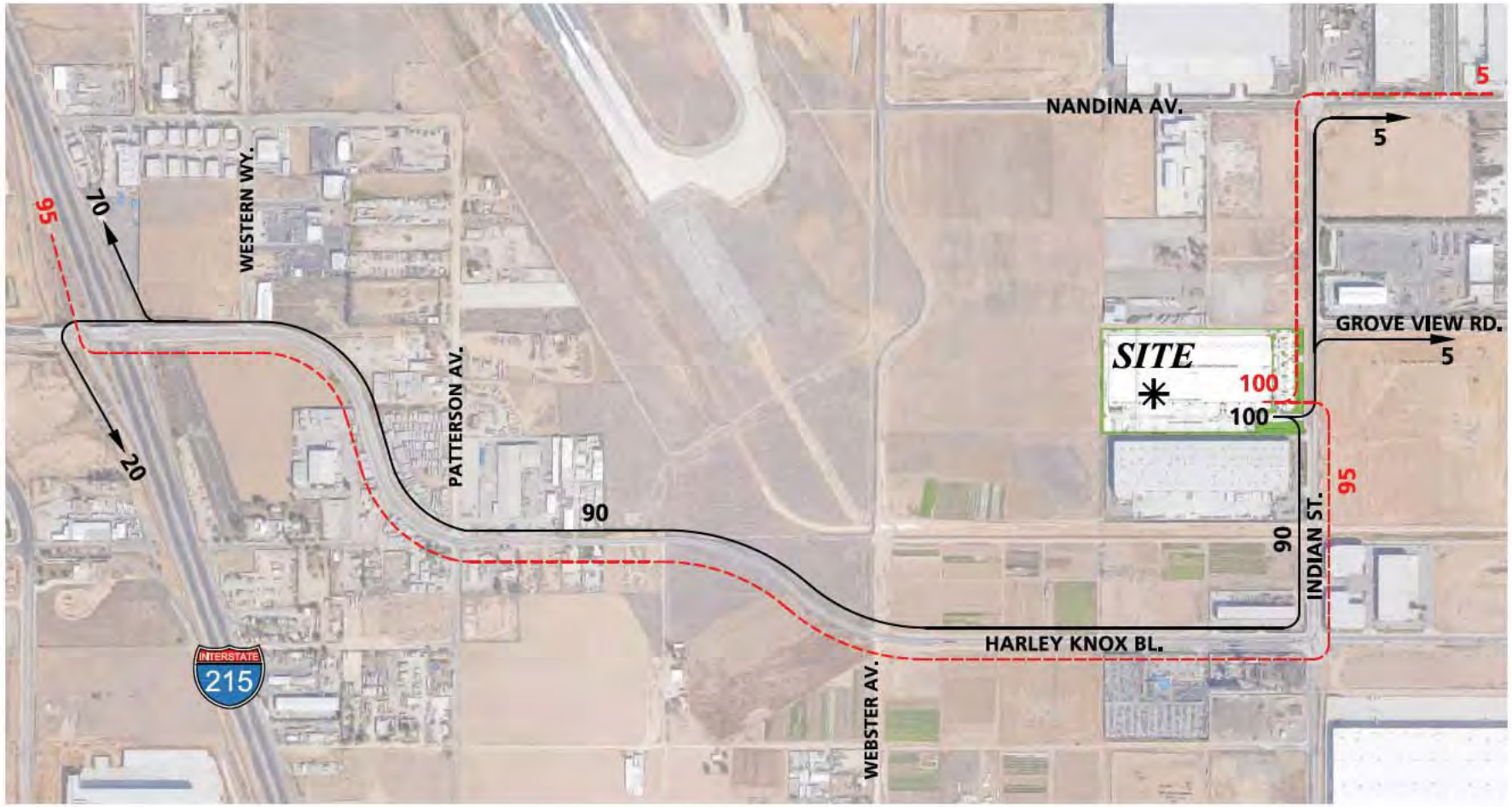
EXHIBIT 4-2: PROJECT (TRUCKS) TRIP DISTRIBUTION



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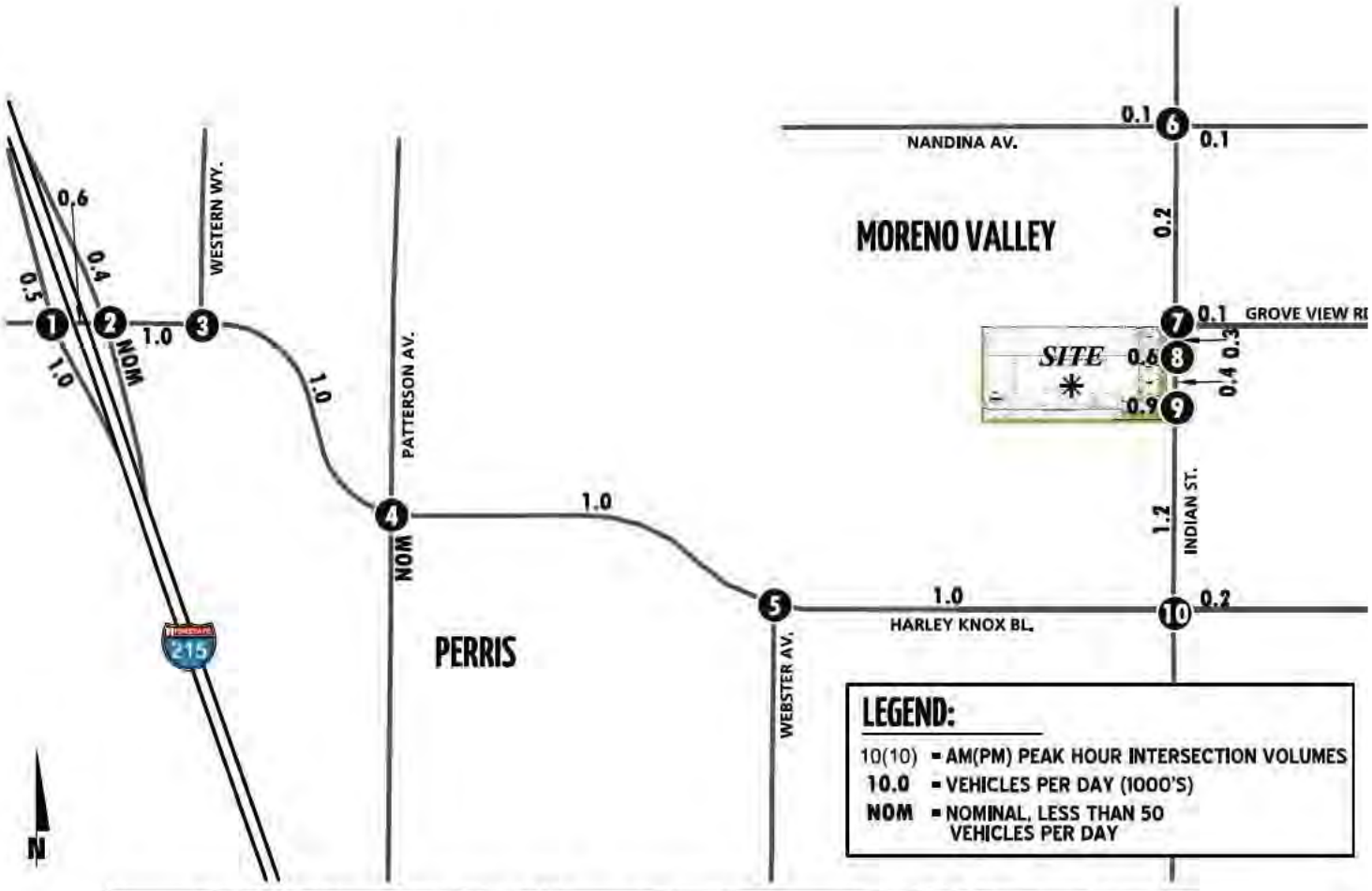
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

EXHIBIT 4-3: PROJECT ONLY TRAFFIC VOLUMES



1 I-215 SB Ramps & Harley Knox Bl.	2 I-215 NB Ramps & Harley Knox Bl.	3 Western Wy. & Harley Knox Bl.	4 Patterson Av. & Harley Knox Bl.	5 Webster Av. & Harley Knox Bl.
0(0) 0(0) 70(35) → 0(0) ← 7(20)	→ 18(52) ← 7(20)	0(0) 0(0) → 0(0) ← 25(71)	0(0) 0(0) 0(0) → 0(0) ← 25(71) ← 1(2)	← 26(74)
0(0) → 0(0)	0(0) → 70(35)	0(0) → 78(38)	0(0) → 78(38) → 0(0)	81(39) → 0(0)
	→ 0(0) 0(0) 8(3)		→ 0(0) 0(0) 3(1)	0(0)

6 Indian St. & Nandina Av.	7 Indian St. & Grove View Rd.	8 Indian St. & Driveway 1	9 Indian St. & Driveway 2	10 Indian St. & Harley Knox Bl.
0(0) 0(0) 0(0) → 0(0) ← 0(0) ← 8(4)	14(6) 0(0) → 0(0) ← 10(5)	20(9) 3(2) → 7(18) ← 11(28) ← 31(14) 2(6)	3(2) 11(28) → 2(6) ← 20(58) ← 63(31) 31(14)	26(74) 0(0) 5(12) → 13(6) ← 0(0) ← 0(0)
0(0) → 0(0) → 5(2) → 2(5) 0(0) 3(8)	5(12) 5(12)			81(39) → 0(0) → 0(0) → 0(0) 0(0) 0(0)

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In context, the TIA's assumed 2 percent compounded annual growth rate is considered a reasonable approximation of future traffic growth when compared to demographic projections reflected in other local and regional growth modeling efforts. More specifically, the Southern California Association of Governments SCAG 2012—2035 RTP/SCS growth forecasts for the City of Moreno Valley assume the City population to increase from 187,400 in 2008 to 255,200 by the year 2035, or an approximate 1.15 percent growth rate compounded annually. The RTP/SCS assumed growth in households over the same 27- year period reflects an increase from 51,100 households to 72,800 households; a rate of 1.32 percent compounded annually. At the upper end of assumed RTP/SCS growth rates, employment over the same 27-year period is projected to increase from 32,300 jobs to 64,400 jobs; a rate of approximately 2.59 percent compounded annually. (4) The 2 percent compounded annual traffic growth rate employed in the TIA reflects the fact that not all persons comprising population growth, household growth, or employment growth would translate on a one to one basis as a new vehicle trip in the region; and establishes a judicious midrange estimate lying between the RTP/SCS assumed regional population growth rate (1.15 percent) and the RTP/SCS assumed regional employment growth rate (2.59 percent).

Conservatively, the TIA estimates of area traffic growth then add traffic generated by other known or probable related projects. These related projects are at least in part already accounted for in the assumed annual 2 percent ambient growth in traffic noted above; and in some instances these related projects would likely not be implemented and functional within the 2020 Opening Year time frame assumed for the Project. The resultant assumed traffic growth rate employed in the TIA (2 percent annual ambient growth plus traffic generated by related projects) would therefore tend to overstate rather than understate background cumulative traffic impacts under 2020 conditions.

4.6 CUMULATIVE DEVELOPMENT TRAFFIC

CEQA guidelines require that other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area also be included as part of a cumulative analysis scenario. A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Moreno Valley. The cumulative project list includes known and foreseeable projects that are anticipated to contribute traffic to the study area intersections. Adjacent jurisdictions of the County of Riverside, March Joint Powers Authority (JPA), City of Riverside, and the City of Perris have also been contacted to obtain the most current list of cumulative projects from their respective jurisdictions. The correspondence and cumulative projects provided by each of the applicable jurisdictions are provided in Appendix 4.1.

Where applicable, cumulative projects anticipated to contribute measurable traffic (i.e. 50 or more peak hour trips) to study area intersections have been manually added to the study area network to generate Opening Year Cumulative forecasts. In other words, this list of cumulative development projects has been reviewed to determine which projects would likely contribute measurable traffic through the study area intersections (e.g., those cumulative projects in close proximity to the proposed Project). For the purposes of this analysis, the cumulative projects

that were determined to affect one or more of the study area intersections are shown on Exhibit 4-4, listed on Table 4-4, and have been considered for inclusion.

Although it is unlikely that these cumulative projects would be fully built and occupied by Year 2020, they have been included in an effort to conduct a conservative analysis and overstate as opposed to understate potential traffic impacts.

Any other cumulative projects that are not expected to contribute measurable traffic to study area intersections have not been included since the traffic would dissipate due to the distance from the Project site and study area intersections. Any additional traffic generated by other projects not on the cumulative projects list is accounted for through background ambient growth factors that have been applied to the peak hour volumes at study area intersections as discussed in Section 4.5 *Background Traffic*. Cumulative development project ADT and peak hour intersection turning movement volumes are shown on Exhibit 4-5.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

EXHIBIT 4-4: CUMULATIVE DEVELOPMENT PROJECTS LOCATION MAP

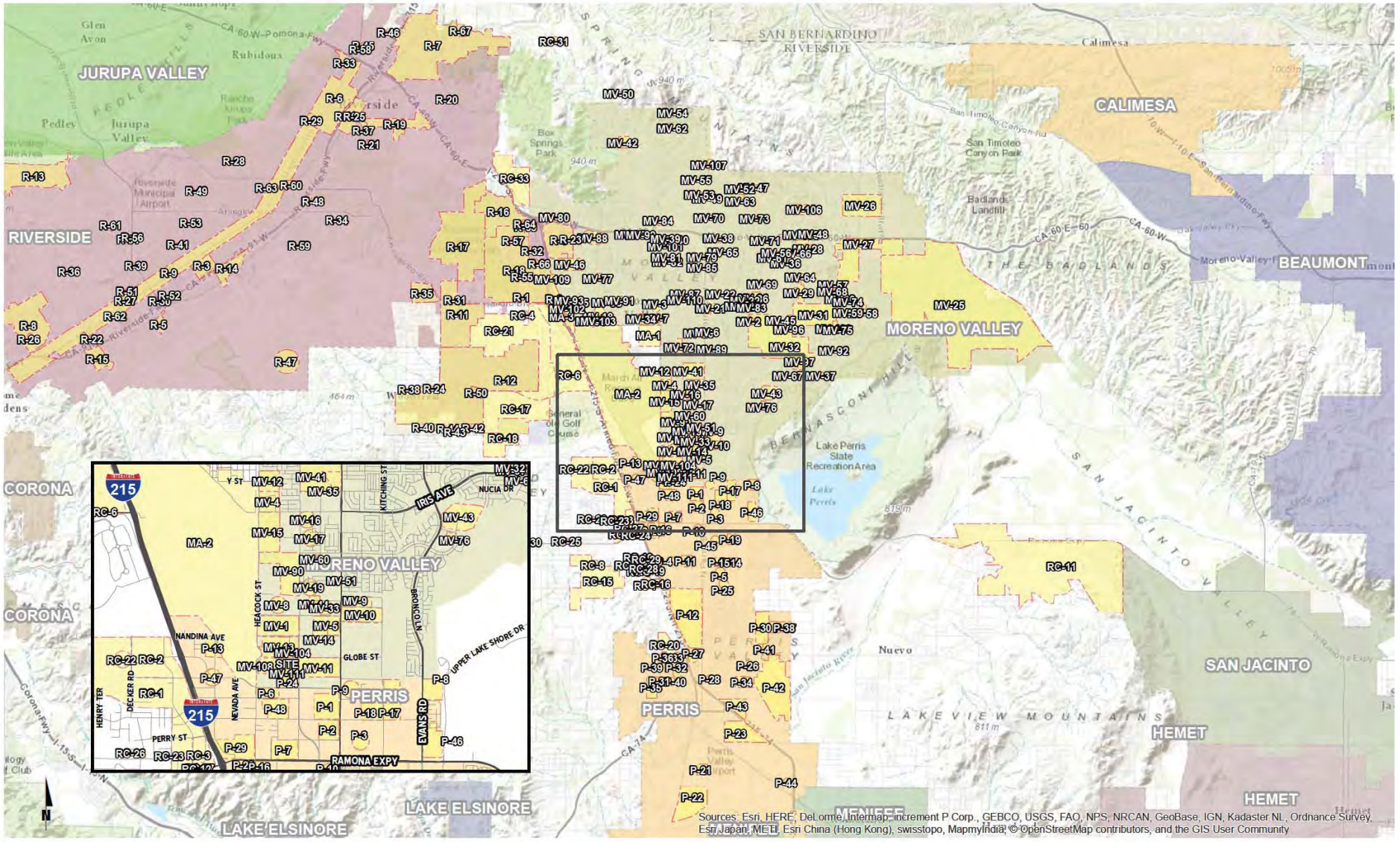

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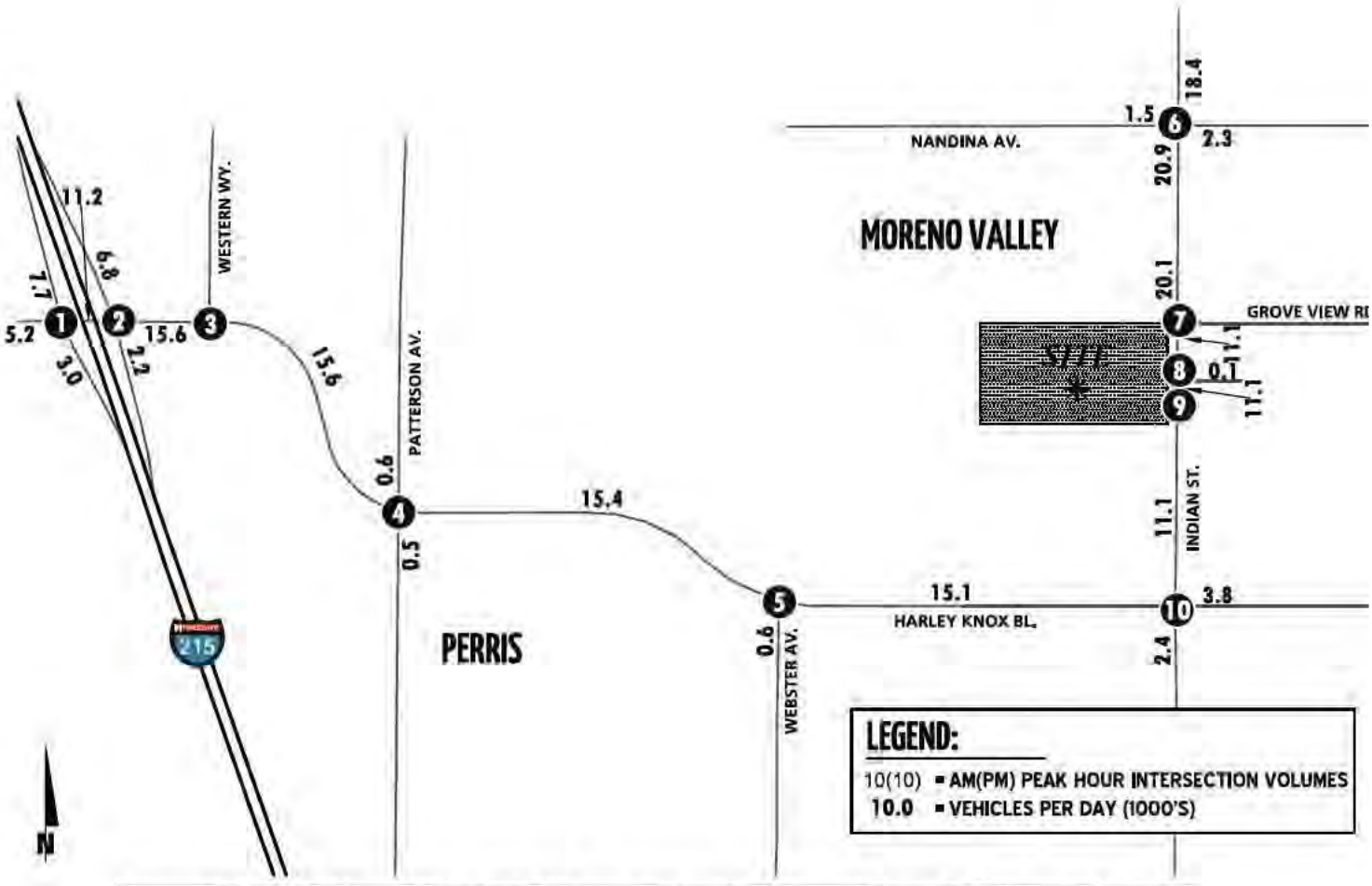
EXHIBIT 4-5: CUMULATIVE DEVELOPMENT TRAFFIC VOLUMES



1 I-215 SB Ramps & Harley Knox Bl.	2 I-215 NB Ramps & Harley Knox Bl.	3 Western Wy. & Harley Knox Bl.	4 Patterson Av. & Harley Knox Bl.	5 Webster Av. & Harley Knox Bl.
214(113) 0(0) 1117(432) ← 108(56) ← 120(481)	→ 286(1084) ← 147(495)	0(0) 0(0) ← 0(0) ← 434(1579)	13(80) 0(0) 0(0) ← 0(0) ← 409(1464) ← 11(37)	← 421(1502)
103(288) → 34(96) →	90(257) → 1129(462) →	0(0) → 1420(548) →	77(17) → 1343(531) → 0(0) →	1344(524) → 29(18) →
	80(42) 0(0) 291(86)		12(35) 0(0) 30(13)	2(4)

6 Indian St. & Nandina Av.	7 Indian St. & Grove View Rd.	8 Indian St. & Driveway 1	9 Indian St. & Driveway 2	10 Indian St. & Harley Knox Bl.
20(6) 386(1216) 5(0) ← 3(1) ← 8(44) ← 34(114)	470(1294) 0(0) ← 0(0) ← 0(0)	468(1484) 2(1) ← 2(4) ← 4(7)	Future Intersection	259(783) 13(62) 5(26) ← 25(5) ← 117(594) ← 6(4)
4(20) → 9(14) → 60(180) →	1484(481) 0(0)	1482(521) 6(2)		704(329) → 545(144) → 98(57) →
209(43) 1227(449) 82(54)				44(125) 59(17) 3(8)

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Table 4-4

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
	CITY OF MORENO VALLEY			
MV-1	PA 06-0152 & PA 06-0153 (First Park Nandina I & II)	High-Cube Warehouse	483.767	TSF
MV-2	Bella Vista Apartments	Apartments	220.00	DU
MV-3	PA 04-0063 (Centerpointe Buildings 8 and 9)	General Light Industrial	361.384	TSF
MV-4	PA 07-0035; PA 07-0039 (Moreno Valley Industrial Park)	General Light Industrial	204.657	TSF
		High-Cube Warehouse	409.920	TSF
MV-5	First Inland Logistics Center	High-Cube Warehouse	400.130	TSF
MV-6	TM 33607	Condo/Townhomes	52	DU
MV-7	PA 08-0093 (Centerpointe Business Park II)	General Light Industrial	99.988	TSF
MV-8	PA 06-0021; PA 06-0022; PA 06-0048; PA 06-0049 (Komar Investments)	Warehousing	287.100	TSF
MV-9	PA 06-0017 (Ivan Devries)	Industrial Park	569.200	TSF
MV-10	Modular Logistics (Dorado Property)	High-Cube Warehouse	1109.378	TSF
MV-11	PA 09-0004 (Vogel)	High-Cube Warehouse	800.000	TSF
	Sares Regis	High-Cube Warehouse	1600.000	TSF
MV-12	TM 34748	SFDR	135	DU
MV-13	First Nandina Logistics Center	High-Cube Warehouse	1450.000	TSF
MV-14	First Park Nandina III	High-Cube Warehouse	691.960	TSF
	Moreno Valley Commerce Park	High-Cube Warehouse	354.321	TSF
MV-15	March Business Center	General Light Industrial	16.732	TSF
		Warehousing	87.429	TSF
		High-Cube Warehouse	1380.246	TSF
MV-16	TM 33810	SFDR	16	DU
MV-17	TM 34151	SFDR	37	DU
MV-18	373K Industrial Facility	High-Cube Warehouse	373.030	TSF
MV-19	TM 32716	SFDR	57	DU
MV-20	TM 33417	Condo/Townhomes	60	DU
MV-21	TM 34988	Condo/Townhomes	271	DU
MV-22	TM 34216	Condo/Townhomes	39	DU
MV-23	TM 34681	Condo/Townhomes	49	DU
MV-24	PA 08-0079-0081 (WinCo Foods)	Discount Supermarket	95.440	TSF
		Specialty Retail	14.800	TSF
MV-25	Moreno Beach Marketplace (Lowe's)	Commercial Retail	175.000	TSF
	Auto Mall Specific Plan (Planning Area C)	Commercial Retail	304.500	TSF
	Westridge	High-Cube Warehouse	937.260	TSF
	ProLogis	High-Cube Warehouse	1916.190	TSF
		Warehousing	328.448	TSF
	World Logistics Center	High-Cube Warehouse	41400.000	TSF
		Warehousing	200.000	TSF
		Gas Station w/ Market	12	VFP
		Existing SFDR	7	DU
MV-26	a TR 32460 (Sussex Capital)	SFDR	57	DU
	b TR 32459 (Sussex Capital)	SFDR	11	DU
	c TR 30411 (Pacific Communities)	SFDR	24	DU
	d TR 33962 (Pacific Scene Homes)	SFDR	31	DU
	e TR 30998 (Pacific Communities)	SFDR	47	DU
MV-27	a P06-158 (Gascon)	Commercial Retail	116.360	TSF
	b Auto Mall Specific Plan (PAC)	Commercial Retail	304.500	TSF
	c ProLogis	SFDR	126	DU
		High-Cube Warehouse	1529.498	TSF
	d TR 35823 (Stowe Passco)	SFDR	261	DU
		Apartments	216	DU
MV-28	TR 36340	SFDR	275	DU
MV-29	a TR 31771 (Sanchez)	SFDR	25	DU
	b TR 34397 (Winchester Associates)	SFDR	52	DU
	c TR 32645 (Winchester Associates)	SFDR	53	DU
MV-30	Lowe's (Moreno Beach Marketplace)	Home Improvement Store	175.000	TSF
MV-31	a Senior Assisted Living	Assisted Living Units	139	DU
	b TR 31590 (Winchester Associates)	SFDR	96	DU
	c TR 32548 (Gabel, Cook & Associates)	SFDR	107	DU
	d TR 32218 (Whitney)	SFDR	63	DU
	e Medical Plaza	Medical Offices	311.633	TSF
MV-32	a Moreno Medical Campus	Medical Offices	80.000	TSF
	b Aqua Bella Specific Plan	SFDR	2,922	DU
	c TR 34329 (Granite Capitol)	SFDR	90	DU
	d Cresta Bella	General Office	30.000	TSF

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TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-33	Moreno Valley Industrial Center (Industrial Area SP)	General Light Industrial	354.810	TSF
MV-34	Centerpointe Business Park	General Light Industrial	356.000	TSF
MV-35	Moreno Valley Shopping Center	Free Standing Discount Store	189.520	TSF
		Gas Station w/ Market / Car Wash	16	VFP
MV-36	TR 31305 / Richmond American	Residential	87	DU
MV-37	TR 34329 / Granite Capitol	Residential	90	DU
MV-38	TR 31814 / Moreno Valley Investors	Residential	60	DU
MV-39	TR 33771 / Creative Design Associates	Residential	12	DU
MV-40	TR 35663 / Kha	Residential	12	DU
MV-41	TR 22180 / Young Homes	Residential	140	DU
MV-42	TR 32515	Residential	161	DU
MV-43	TR 32142	Residential	81	DU
MV-44	San Michele Industrial Center (Industrial Area SP)	General Light Industrial	865.960	TSF
MV-45	Commercial Medical Plaza	Medical Offices	311.633	TSF
MV-46	Edgemont Street, South of Eucalyptus Av. (PA14-0042)	Apartments	112	DU
MV-47	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	SFDR	9	DU
MV-48	20636 Pacific Communities	SFDR	67	DU
MV-49	31297 Randy McFarland	SFDR	7	DU
MV-50	31394 Pigeon Pass, Ltd.	SFDR	78	DU
MV-51	31442 SKG Pacific Enterprises Inc.	SFDR	63	DU
MV-52	31517 Professors Prop Six/Winchester Assoc.	SFDR	83	DU
MV-53	31621 Peter Sanchez	SFDR	25	DU
MV-54	32005 Red Hill Village, LLC	SFDR	214	DU
MV-55	32126 Salvador Torres	SFDR	35	DU
MV-56	32194 Arman Pezeshkifar	SFDR	32	DU
MV-57	32408 Sanstone Inc.	SFDR	80	DU
MV-58	32844 Winchester Associates	SFDR	17	DU
MV-59	32978 Focus Estates	SFDR	19	DU
MV-60	33024 Adam Wislar	SFDR	8	DU
MV-61	33275 Jose Guzman	SFDR	4	DU
MV-62	33388 SCH Development, LLC	SFDR	16	DU
MV-63	33436 Winchester Associates	SFDR	105	DU
MV-64	33963 Rance Garrett	SFDR	31	DU
MV-65	34043 RM3 Building and Development	SFDR	12	DU
MV-66	31621 Beazer Homes	SFDR	274	DU
MV-67	30268 Pacific Communities	SFDR	83	DU
MV-68	31414 GRF - Majestic Hills	SFDR	31	DU
	Tract 31618	SFDR	55	DU
MV-69	31494 Winchester Associates	SFDR	12	DU
MV-70	32715 GFR - Trinity	SFDR	30	DU
MV-71	33256 Granite Homes	SFDR	79	DU
MV-72	32711 Isaac Genah	SFDR	9	DU
MV-73	35530 Moreno Gilman 650, LLC-Quail Ranch	SFDR	1,105	DU
MV-74	35534 Leedco Engineers	SFDR	12	DU
MV-75	36436 CV Communities	SFDR	159	DU
MV-76	36401 Continental East Fund III, LLC	SFDR	92	DU
MV-77	32215 Winchester Associates "Scottish Village"	MFDR	194	DU
MV-78	32756 Jimmy Lee	MFDR	24	DU
MV-79	35369 Tason Myers Property	MFDR	12	DU
MV-80	35414 Lincoln Property Co. Southwest	MFDR	266	DU
MV-81	35769 Michael Chen	MFDR	16	DU
MV-82	PA09-0006 Jim Nydam	MFDR	15	DU
MV-83	35861 Frederick Homes	MFDR	24	DU
MV-84	36038 Alessandro Village Plaza, LLC	MFDR	96	DU
MV-85	35304 Jimmy Lee	MFDR	12	DU
MV-86	Alessandro & Lasselle	Shopping Center	140.000	TSF
MV-87	Food 4 Less - Fueling Station	Gas Station with Convenience Market	16	VFP
MV-88	El Paso (food court)	Fast Food no Drive Thru	--	TSF
MV-89	O'Reilly Automotive	Automobile Parts Sale	7.500	TSF
	PA15-004	Retail/Restaurant/Fast Food	2.973	TSF
MV-90	Moreno Valley Logistics	High-Cube Warehouse	1351.770	TSF
		Light Industrial	385.748	TSF
MV-91	Restaurant	Restaurant	9.000	TSF
MV-92	Rancho Belago Plaza - Retail	Retail	14.000	TSF
MV-93	Yum Yum Donut Shop	Coffee/Donut Shop w/o Drive-Thru	4.351	TSF

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Table 4-4

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-94	Hawthorn Inn & Suites	Hotel	79	RMS
MV-95	Sleep Inn Suites	Hotel	66	RMS
MV-96	Integrated Care Communities	Nursing Home	44.000	TSF
MV-97	Kaiser Permanente - Emergency Room Expansion	Medical Offices	--	TSF
MV-98	Moreno Valley Professional Center	General Office	84.000	TSF
MV-99	Olivewood Plaza - Office Building	General Office	23.000	TSF
MV-100	Renaissance Village of Moreno Valley	Senior Adult Housing-Attached	44	DU
MV-101	Riverside County Office Building	General Office	52.000	TSF
MV-102	Gateway Business Park	Residential Condo/Townhouse	34	DU
MV-103	Shaw Development	High-Cube Warehouse	367.000	TSF
MV-104	IDS/Real Estate Group - Nandina Distribution Center	High-Cube Warehouse	697.000	TSF
MV-105	Stoneridge Town Centre - Vacant Restaurant	Restaurant	5700.000	TSF
MV-106	Ironwood Residential	SFDR	144	DU
MV-107	TTM 31592 (P 13-078) Covey Ranch	SFDR	115	DU
MV-108	PA 06-0014 (Pierce Hardy Limited Partnership)	Lumbar Yard	67.000	TSF
MV-109	P06-1408	Retail	75.300	TSF
MV-110	PA13-009	Gas Station	16	VFP
MV-111	Moval Assemblage	High-Cube Warehouse	459.945	TSF
MARCH JOINT POWERS AUTHORITY				
MA-1	March Lifecare Campus Specific Plan[4]	Medical Offices	190.000	TSF
		Commercial Retail	210.000	TSF
		Research & Education	200.000	TSF
		Hospital	50	Beds
		Institutional Residential	660	Beds
MA-2	Airport Master Plan	Airport Use	559.000	TSF
MA-3	Freeway Business Center (March JPA)	High-Cube Warehouse	710.083	TSF
COUNTY OF RIVERSIDE				
RC-1	SP 341; PP 21552 (Majestic Freeway Business Center)	High-Cube Warehouse	6100.715	TSF
RC-2	PP 20699 (Oleander Business Park)	Warehousing	1206.710	TSF
RC-3	Ramona Metrolink Station	Light Rail Transit Station	300	SP
RC-4	PP 22925 (Amstar/Kaliber Development)	Office (258.102 TSF)	258.102	TSF
		Warehousing	409.312	TSF
		General Light Industrial	42.222	TSF
		Retail	10.000	TSF
RC-5	Alessandro Metrolink Station	Light Rail Transit Station	300	SP
RC-6	Meridian Business Park North	Industrial Park	5985.000	TSF
RC-7	PP 18908	General Light Industrial	133.000	TSF
RC-8	Tract 33869	SFDR	39.000	DU
RC-9	PP 16976	General Light Industrial	85.000	TSF
RC-10	PP 21144	Industrial Park	190.802	TSF
RC-11	a Villages of Lakeview	SFDR	860	DU
		Condo/Townhomes	1,920	DU
		Elementary School	1,200	STU
		Commercial Retail	100.000	TSF
		Soccer Complex	12	Fields
		City Park	8.9	AC
		County Park	8.1	AC
		Regional Park	107.1	AC
	b Motte Lakeview Ranch	SFDR	847	DU
		Condo/Townhomes	686	DU
		Apartments	467	DU
		Elementary School	650	STU
		Middle School	300	STU
		Commercial Retail	120.000	TSF
		Regional Park	177.0	AC
RC-12	CUP03315	Gas Station w/ Market	17	VFP
		Fast Food w/o Drive Thru	5.600	TSF
		High-Turnover Restaurant	6.500	TSF
RC-13	PP23342	Industrial Park	180.600	TSF
RC-14	TR30592	SFDR	131	DU
RC-15	Rider Street Quarry	Quarry	2500.0	AC
RC-16	PP 20711	Manufacturing	20.0	AC
	Yocum Baldwin	Warehousing	46.8	AC

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Table 4-4

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
RC-17	March Business Center - South Campus	Shopping Center	108.900	TSF
		Industrial Park	1336.700	TSF
		Large Industrial Park	3269.000	TSF
		General Office Building	140.600	TSF
		Manufacturing	215.600	TSF
		Warehousing	1379.200	TSF
		Park	50.0	AC
		R&D	1611.800	TSF
RC-18	Ben Clark Training Facility	Students	5,045	STU
		Employees	354	EMP
RC-19	PP 20103	Gen. Light Industrial	290.985	TSF
RC-20	Nuevo Business Park	Gen. Light Industrial	357.156	TSF
		Warehousing	1767.618	TSF
RC-21	Meridian (March Business Park SP)	Business Park	41917.000	TSF
RC-22	Blanding Assemblage	High-Cube Warehouse	707.880	TSF
RC-23	CUP 03527	Warehousing	8.000	TSF
RC-24	CUP 03599	Hotel	52.798	TSF
RC-25	PP 24608	Retail	9.280	TSF
RC-26	PM 32699	SFDR	2.00	DU
RC-27	PP 25699	Fast-Food w/Drive Thru	2.800	TSF
		Retail	19.000	TSF
RC-28	TR 30592	SFDR	131.00	DU
RC-29	PP 25768	Manufacturing	52.450	TSF
RC-30	CUP 03620R1	Gas Station w/ Market	8.00	VFP
RC-31	TTM 33410 Box Springs	SFDR	142	DU
RC-32	Knox Logistics	High-Cube Warehouse	1,259.050	TSF
RC-33	University Highlands	SFDR	405	DU
		Condo/Townhomes	320	DU
		Apartments	1,475	DU
		Shopping Center	50.0	TSF
		Parks	42.4	AC
CITY OF RIVERSIDE				
R-1	P07-1028 (Alessandro Business Park)	General Light Industrial	662.018	TSF
	Alessandro and Gorgonio	Fast Food w/Drive Thru	4.050	TSF
R-2	Alessandro Bl. (APN 263-091-008; 263-100-019; 263-100-005; P14-0841 to 0848)	Commercial and Industrial Complex	101.580	TSF
R-3	California Baptist University Specific Plan	University	157.0	AC
R-4	Canyon Springs Specific Plan	Hospital	280	BEDS
		Medical-Dental Office	370.000	TSF
		Senior Adult Housing-Attached	234	DU
		Assisted Living	267	BEDS
R-5	Citrus Business Park Specific Plan	Industrial Business Park	49.0	AC
R-6	Downtown Specific Plan	Residential	5,000	DU
R-7	Hunter Business Park	Industrial	1300.0	AC
R-8	La Sierra University Specific Plan	Mixed-Use		
R-9	Magnolia Avenue Specific Plan	Mixed-Use/Very High Residential	1473.0	AC
R-10	Marketplace Specific Plan	Commercial Retail/Office	200.0	AC
R-11	Mission Grove Specific Plan	Business/Office Park	56.8	AC
		Commercial Retail	68.1	AC
		High Density Residential	53.8	AC
		Low Density Residential	78.4	AC
		Medium Density Residential	155.3	AC
R-12	Orangecrest Specific Plan	Rural Residential	2.1	AC
		Business/Office Park	2.7	AC
		Commercial Retail	139.0	AC
		High Density Residential	13.7	AC
		Low Density Residential	540.8	AC
		Medium Density Residential	1217.8	AC
		Public Facilities/Institutions	121.6	AC
		Public Park	59.5	AC
R-13	Rancho La Sierra Specific Plan	SFDR	598	DU
R-14	Riverside Auto Center Specific Plan	Auto Center		
R-15	Riverwalk Vista Specific Plan	Residential	402	DU

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Table 4-4

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
R-16	Sycamore Canyon Specific Plan	Hillside Residential	41.8	AC
		Low Density Residential	97.3	AC
		Medium Density Residential	14.8	AC
		Very Low Density Residential	884.2	AC
		Public Park	27.9	AC
R-17	Sycamore Canyon Business Park Specific Plan	Business/Office Park	847.2	AC
		Commercial Retail	10.3	AC
R-18	Sycamore-Highlands Specific Plan	Commercial Retail	14.6	AC
		High Density Residential	52.2	AC
		Medium Density Residential	99.1	AC
		Public Facilities	1.6	AC
			144.2	AC
		Very Low Density Residential	49.1	AC
R-19	University Avenue Specific Plan	Mixed-Use	Varies	
R-20	807 Blaine Street (P09-0717; P09-0718)	Apartments	55	DU
R-21	2340 Fourteenth Street (P09-0808; P08-0809)	Senior Housing	134	BEDS
R-22	Park Sierra Avenue (P14-0026; P14-0027)	Fast Food w/Drive Thru	3.500	TSF
R-23	6287 Day Street (P10-0090; P10-0091)	Gas Station	2	VFP
	2570 Canyon Springs Parkway (P08-0274; P08-0275)	Bank w/ Drive Thru	2.746	TSF
	6211 Valley Springs Parkway (Steak 'N Shake Restaurant; P14-0536)	Fast Food w/Drive Thru	3.750	TSF
R-24	N. of Van Buren Boulevard; W. of Wood Street (P10-0808; P10-0708)	Fast Food w/Drive Thru	2.361	TSF
R-25	E. of Commerce St., between Mission Inn Av. and Ninth St. (P14-0045; P14-0046; P14-0047; P14-0048; P14-0049)	Apartments	208	DU
R-26	NWC of Riverwalk Parkway and Flat Rock Drive (P12-0019; P12-0156; P12-0158)	Convenience Store	2.400	TSF
		Coffee Shop	3.946	TSF
R-27	3875 Dawes Street (P10-0438; Magnolia Garden Condominiums)	Condo/Townhomes	62	DU
R-28	5938-5944 Grand Avenue (P12-0266; P12-0267; P12-0268)	Senior Housing	37	DU
R-29	4445 Magnolia Avenue (P13-0207; P13-0208; P13-0209; P13-0210; P13-0211)	Hospital Expansion	Varies	
R-30	SR-91/Van Buren Commercial	Commercial Retail	23.565	TSF
R-31	360 Alessandro Boulevard (P12-0419; P12-0557; P12-0558; P12-0559)	Bank	3.858	TSF
R-32	6465 Sycamore Canyon Boulevard	Health Club	4.000	TSF
R-33	2450 Market Street (P13-0087; P13-0262)	Apartments	77	DU
R-34	6091 Victoria Avenue (P13-0432)	Day Care	1.831	TSF
R-35	14601 Dauchy Av. - TM 36370 (P12-0601; P12-0697; P12-0698)	SFDR	10	DU
	TM 32180 (P07-1073)	SFDR	9	DU
	18875 Moss Road	SFDR	8	DU
	South of Clarke St., west of Crystal View Terrace (PM 34583' {09-0141; P09-173)	SFDR	3	DU
R-36	4824 Jones Avenue (P13-0181; P13-0182)	Church	23.124	TSF
R-37	2586 University avenue (P13-0650; P13-0651)	Bed and Breakfast	3.618	TSF
R-38	18580 Van Buren Boulevard (P08-0402; P13-0822)	Auto Repair Shop	8.142	TSF
R-39	4247 Van Buren Boulevard (P13-0785; P13-0787)	Church Expansion	12.166	TSF
R-40	SWC of Lurin Avenue and Wood Road (P06-0900; P08-0269; P08-0270; TTM 32301)	SFDR	20	DU
R-41	8616 California Avenue (P08-0084; PM 35852)	Condo/Townhomes	21	DU
R-42	19811 Lurin Avenue (P06-1355; TM 33480)	SFDR	32	DU
R-43	APN:266140029, 030 (P06-1396; Mariposa Avenue; TM 33481)	SFDR	25	DU
R-44	APN:266140002, 021, 022 (P06-1404; Lurin Avenue; TM 33482)	SFDR	29	DU
R-45	3719 Strong Street (P05-0269; P08-0416; TM 33550)	SFDR	9	DU
R-46	1006 & 1008 Clark Street (P06-0782; TM 34908)	SFDR	15	DU
R-47	E. of Gratton St., W. of Corsica Av., N. of Van Buren Bl. (P05-1528; P09-0087; TM 34509)	SFDR	50	DU
R-48	NWC of Dominion Avenue and Division Street (P08-0396; P08-0397; P08-0398; P08-0399; TM 35620)	Condo/Townhomes	36	DU
R-49	6639 Hillside Avenue (P08-0727; PM 35901)	Industrial	5	LOTS
R-50	19985 Van Buren Boulevard (P10-0118; Gless Ranch)	Commercial Retail	425.447	TSF
R-51	3990 Reynolds Road (P12-0021; P12-0022; P12-0074; PM 36442)	Condo/Townhomes	102	DU
R-52	NEC of Martha Way & Everest Avenue (P13-0389; TM 36579)	SFDR	5	DU
R-53	4325, 4335, 4345, 4355, 4375 Adams Street (P13-0723; P13-0724; P13-0725; TM 36654)	SFDR	62	DU
R-54	5200 Van Buren Boulevard (P09-0600; P09-0601; Walmart Expansion)	Free Standing Discount Store	22.272	TSF
R-55	P06-0160	Gen. Light Industrial	316.224	TSF
	P06-1281	Warehousing	107.732	TSF

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Table 4-4

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
R-56	9241 & 9265 Audrey Avenue (P12-0184; P12-0185; P12-0187; Azar Plaza)	Commercial Retail	6.150	TSF
R-57	Office, Magnon & Panattoni	Office	131.000	TSF
		Warehousing	1400.000	TSF
		Warehousing	300.000	TSF
		Warehousing	216.000	TSF
R-58	1710 Main Street (P12-0717)	Family Dollar Store	8.039	TSF
R-59	2861 Mary Street (P12-0442; P12-0443; P12-0444)	Shopping Center	56.101	TSF
R-60	3545 Central Avenue (P12-0741; P12-0743)	Riverside Plaza Renovations	35.0	AC
R-61	5731, 5741, 5761 & 5797 Pickler Street (P13-0198; P13-0199; P13-0200; P13-0201)	Apartments	30	DU
R-62	3705 Tyler Street (P13-0501; P13-0502)	Restaurant	6.000	TSF
R-63	6570 Magnolia Avenue; 3739 & 3747 Central Avenue (P13-0196; P13-0197)	Fast Food w/Drive Thru	3.795	TSF
R-64	5940-5980 Sycamore Canyon Boulevard (P13-0553; P13-0554; P13-0583; P14-0065)	Apartments	275	DU
R-65	SEC Sycamore Canyon Boulevard & Box Springs Road (P13-0607; P13-0608; P0609; P13-0854)	General Light Industrial	171.616	TSF
R-66	P06-0591	Office	37.939	TSF
		Warehousing	782.188	TSF
		Manufacturing	168.294	TSF
R-67	474 Palmyrita Avenue (P13-0956; P13-0959; P13-0960; P13-0963; P13-0964; P13-0965; P13-0966)	High-Cube Warehouse	1461.449	TSF
	CITY OF PERRIS			
P-1	P 05-0113 (IDI)	High-Cube Warehouse	1750.000	TSF
P-2	P 05-0192 (Oakmont I)	High-Cube Warehouse	697.600	TSF
P-3	P 05-0477	High-Cube Warehouse	462.692	TSF
P-4	Rados Distribution Center	High-Cube Warehouse	1200.000	TSF
P-5	Investment Development Services (IDS) II	High-Cube Warehouse	350.000	TSF
P-6	P 07-09-0018	Warehousing	170.000	TSF
P-7	P 07-07-0029 (Oakmont II)	High-Cube Warehouse	1600.000	TSF
P-8	TR 32707	SFDR	137	DU
P-9	TR 34716	SFDR	318	DU
P-10	P 05-0493 (Ridge I)	High-Cube Warehouse	700.000	TSF
P-11	Ridge II	High-Cube Warehouse	2000.000	TSF
P-12	Harvest Landing Specific Plan	SFDR	717	DU
		Condo/Townhomes	1,139	DU
		Sports Park	16.7	AC
		Business Park	1233.401	TSF
		Shopping Center	73.181	TSF
	Perris Marketplace	Shopping Center	450.000	TSF
P-13	P 06-0411 (Concrete Batch Plant)	Manufacturing	2.000	TSF
P-14	Jordan Distribution	High-Cube Warehouse	378.000	TSF
P-15	Aiere	High-Cube Warehouse	642.000	TSF
P-16	P 08-11-0005; P 08-11-0006 (Starcrest)	High-Cube Warehouse	454.088	TSF
P-17	Stratford Ranch Specific Plan	High-Cube Warehouse	1725.411	TSF
P-18	Stratford Ranch Specific Plan	High-Cube Warehouse	480.000	TSF
		General Light Industrial	120.000	TSF
P-19	P05-0493	Logistics	597.370	TSF
P-20	Starcrest, P011-0005; 08-11-0006	General Light Industrial	454.088	TSF
P-21	South Perris Industrial Phase 1	Logistics	787.700	TSF
P-22	South Perris Industrial Phase 2	Logistics	3448.734	TSF
P-23	South Perris Industrial Phase 3	Logistics	3166.857	TSF
P-24	P 04-0343	Warehousing	41.650	TSF
P-25	P 06-0228	General Light Industrial	149.738	TSF
P-26	P 06-0378	Senior Housing	429	DU
P-27	P 11-09-0011	Retail	80.000	TSF
P-28	P 12-05-0013	Apartments	75	DU
P-29	P 12-10-0005	High-Cube Warehouse	1463.887	TSF
P-30	TR 30850	Residential	496	DU
P-31	TR 30973	Residential	35	DU
P-32	TR 31225	Residential	57	DU
P-33	TR 31226	Residential	82	DU
P-34	TR 31240	Residential	114	DU
P-35	TR 31407	Residential	243	DU

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Table 4-4

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
P-36	TR 31650	SFDR	61	DU
P-37	TR 31659	SFDR	161	DU
P-38	TR 32041	Residential	122	DU
P-39	TR 32406	SFDR	15	DU
P-40	TR 33193	Townhomes	94	DU
P-41	TR 33338	Residential	75	DU
P-42	Park West Specific Plan	SFDR	521	DU
		Elementary School	750	STU
		Neighborhood Park	5.0	AC
P-43	The Venue	Commercial Retail	642.627	TSF
	Retail on San Jacinto	Commercial Retail	217.800	TSF
	Retail on Redlands	Fast Food w/ Drive Thru	4.500	TSF
		Pharmacy w/ Drive Thru	14.000	TSF
		Specialty Retail	31.500	TSF
P-44	South Perris Metrolink Station	Light Rail Transit Station	680	SP
P-45	IDS 04-0464	High-Cube Warehouse	1686.760	TSF
P-46	TTM 32708 (50% Complete)	SFDR	238	DU
P-47	PM 34199	Gen. Light Industrial	46.500	TSF
	DPR 05-0387	Gen. Light Industrial	9.854	TSF
	DPR 05-0452	Warehousing	31.200	TSF
	TPM 34697	Gen. Light Industrial	47.400	TSF
	DPR 06-0396	Warehousing	159.823	TSF
P-48	Integra Pacific Industrial Facility	High-Cube Warehouse	880.000	TSF

[1] SFDR = Single Family Detached Residential ; MFDR = Multi-Family Detached Residential

[2] DU = Dwelling Units; TSF = Thousand Square Feet; SP = Spaces; VFP = Vehicle Fueling Positions; RMS = Rooms; AC = Acres; EMP = Employees

[3] Source: Cactus Avenue and Commerce Center Drive Commercial Center TIA, Urban Crossroads, Inc., December 9, 2008 (Revised).

[4] Source: March Lifecare Campus Specific Plan Traffic Impact Analysis, Mountain Pacific, Inc., May 2009 (Revised).

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4.7 NEAR-TERM TRAFFIC FORECASTS

To provide a comprehensive assessment of potential transportation network deficiencies, the "buildup" analysis was performed in support of this work effort. The "buildup" method was used to approximate the Opening Year Cumulative traffic forecasts, and is intended to identify the cumulative impacts on both the existing and planned near-term circulation system. The Opening Year Cumulative traffic forecasts include background traffic, traffic generated by other cumulative development projects within the study area, and the traffic generated by the proposed Project.

The "buildup" approach combines existing traffic counts with a background ambient growth factor to forecast the near-term 2020 traffic conditions. An ambient growth factor of 10.41% (2020) accounts for background (area-wide) traffic increases that occur over time, up to the year 2020 from the year 2015 (compounded two percent per year growth over a 5-year period). Traffic volumes generated by the Project are then added to assess the Opening Year Cumulative traffic conditions. The 2020 roadway network is similar to the existing conditions roadway network with the exception of future roadways and intersections proposed to be developed by the Project.

As noted previously, an analysis of the proposed Project at various development tiers has been assessed for the purposes of this traffic study. The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

- Opening Year Cumulative (2020)
    - Existing 2015 counts
    - Ambient growth traffic (10.41%)
    - Cumulative Development Project traffic
    - Project traffic

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5 E+P TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Existing plus Project (E+P) conditions and the resulting intersection operations, roadway segment, and traffic signal warrant analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for E+P conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways).

5.2 E+P TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus Project traffic. Exhibit 5-1 shows the ADT and peak hour intersection turning movement volumes (in PCE), which can be expected for E+P traffic conditions.

5.3 INTERSECTION OPERATIONS ANALYSIS

E+P peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TIA. The intersection analysis results are summarized in Table 5-1, which indicate that there are no study area intersections anticipated to experience unacceptable levels of service during one or more peak hours, consistent with Existing traffic conditions.

Exhibit 5-2 summarizes the weekday AM and PM peak hour study area intersection LOS under E+P traffic conditions, consistent with the summary provided in Table 5-1. The intersection operations analysis worksheets are included in Appendix 5.1 of this TIA.

5.4 ROADWAY SEGMENT CAPACITY ANALYSIS

As noted previously, the City of Moreno Valley stated roadway segment capacities are approximate figures only and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet future traffic demand.

Table 5-2 provides a summary of the E+P conditions roadway segment capacity analysis based on the City of Moreno Valley and City of Perris General Plan Circulation Element Roadway Segment Capacity/(LOS) Thresholds identified previously on Table 2-3. As shown on Table 5-2, there are no roadway segments that are anticipated to operate at an unacceptable LOS under E+P traffic conditions.

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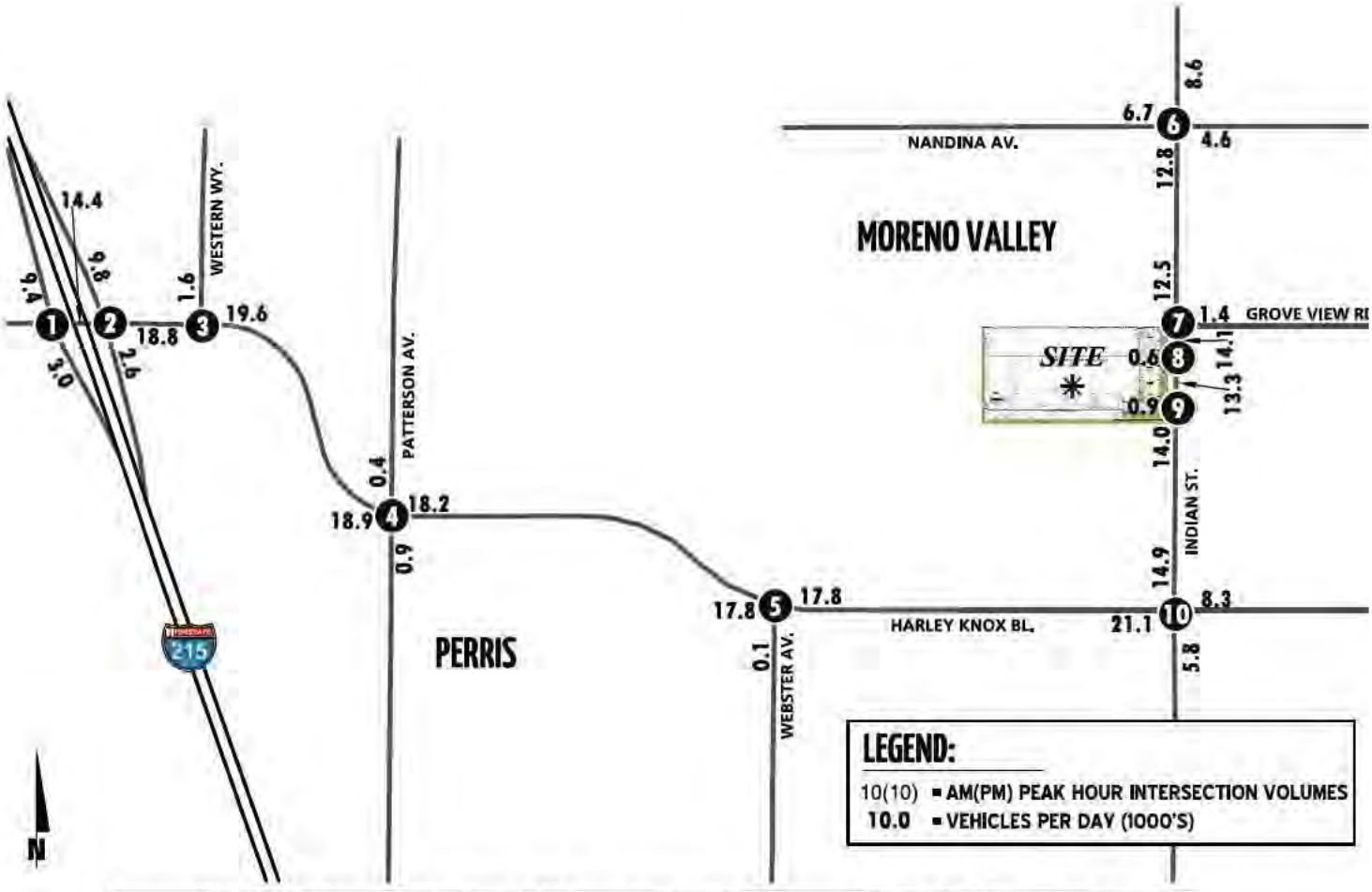
EXHIBIT 5-1: E+P TRAFFIC VOLUMES



1 I-215 SB Ramps & Harley Knox Bl.	2 I-215 NB Ramps & Harley Knox Bl.	3 Western Wy. & Harley Knox Bl.	4 Patterson Av. & Harley Knox Bl.	5 Webster Av. & Harley Knox Bl.
140(182) 3(3) 427(404) ←206(134) ←176(204)	←522(558) ←369(330)	68(85) 2(14) ←26(6) ←823(802)	6(13) 4(2) 3(6) ←14(3) ←733(736) ←2(4)	←747(728)
557(385)→ 10(33)→	315(228)→ 669(560)→ 12(8) 4(0) 113(192)	68(20)→ 714(732)→	9(3)→ 631(689)→ 11(24)→ 79(33) 2(4) 9(7)	634(685)→ 2(2)→ 3(3)
6 Indian St. & Nandina Av.	**7 Indian St. & Grove View Rd.**	**8 Indian St. & Driveway 1**	**9 Indian St. & Driveway 2**	**10 Indian St. & Harley Knox Bl.**
4(56) 63(222) 6(64) ←5(33) ←15(24) ←58(98)	←242(508) 1(15) ←5(13) ←25(38)	20(9) 246(537)	3(2) 254(563)	200(447) 61(159) 10(35) ←33(30) ←446(244) ←15(14)
1(17)→ 22(80)→ 112(252)→ 73(96) 214(276) 36(59)	333(441) 35(47)	7(18)→ 11(28)→ 31(14) 360(470)	2(6)→ 20(58)→ 63(31) 389(478)	297(355)→ 301(312)→ 45(50)→ 64(39) 148(171) 16(17)

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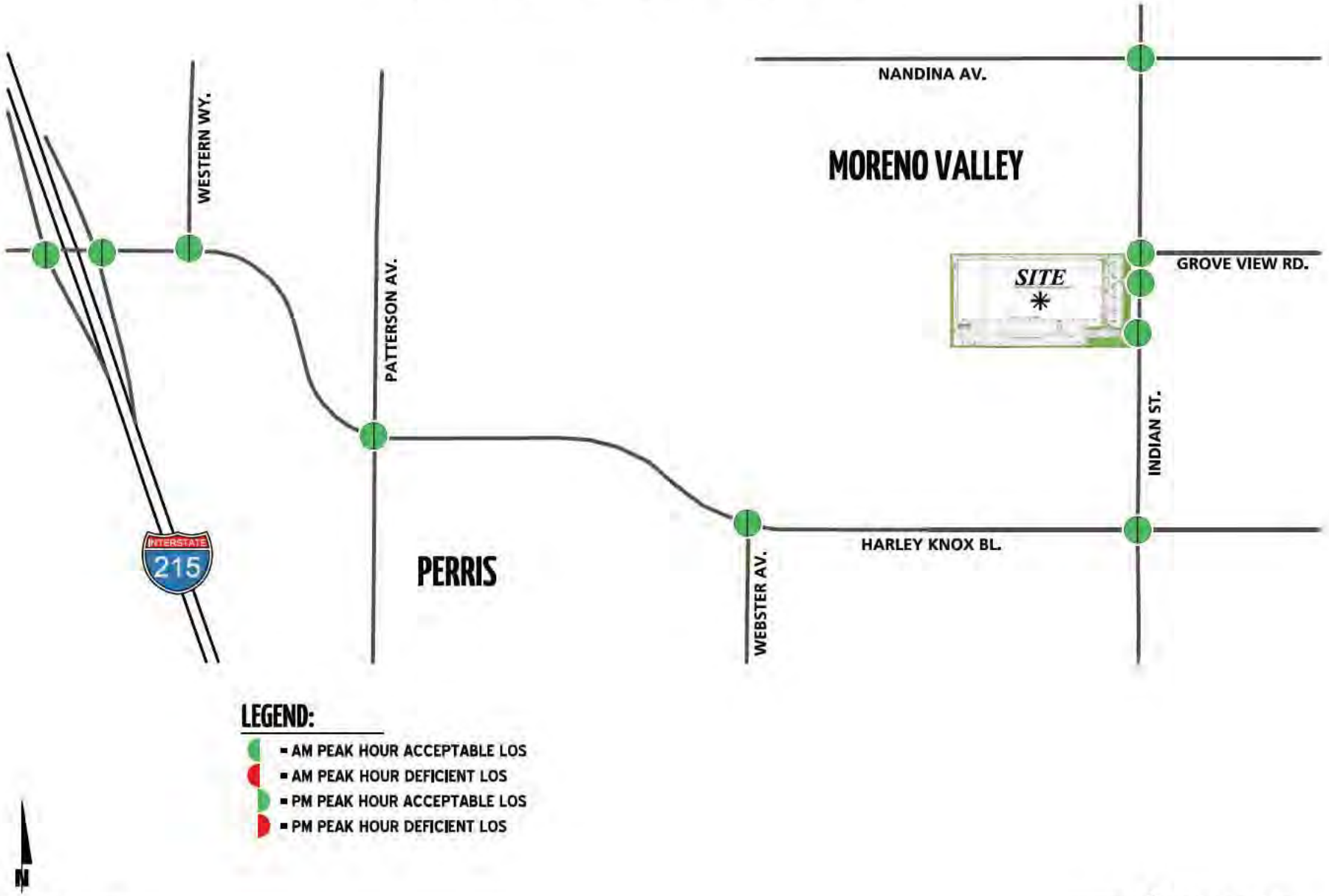
EXHIBIT 5-2: SUMMARY OF LOS FOR E+P CONDITIONS



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URBAN CROSSROADS

Table 5-1

Intersection Analysis for E+P Conditions

#	Intersection	Traffic Control[2]	Existing (2015)				E+P			
			Delay[1] (secs.)		LOS[3]		Delay[1] (secs.)		LOS[3]	
			AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Harley Knox Bl	TS	29.1	32.9	C	C	32.0	34.8	C	C
2	I-215 NB Ramps / Harley Knox Bl	TS	19.3	18.4	B	B	19.7	19.1	B	B
3	Western Wy / Harley Knox Bl	CSS	13.9	14.0	B	B	14.3	15.2	B	C
4	Patterson Av / Harley Knox Bl	TS	19.9	20.2	B	C	20.4	21.1	C	C
5	Webster Av / Harley Knox Bl	CSS	9.5	9.6	A	A	9.5	9.6	A	A
6	Indian St / Nandina Av	TS	18.9	25.8	B	C	19.7	26.4	B	C
7	Indian St / Grove View Rd	CSS	12.0	18.6	B	C	12.4	19.4	B	C
8	Indian St / Driveway 1	**CSS**	Future Intersection				10.5	13.1	B	B
9	Indian St / Driveway 2	**CSS**	Future Intersection				9.6	12.2	A	B
10	Indian St / Harley Knox Bl	TS	16.8	24.2	B	C	22.1	28.4	C	C

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

[3] LOS = Level of Service

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Table 5-2

Roadway Volume/Capacity Analysis for E+P Conditions

#	Roadway	Segment Limits	Roadway Section	LOS[3] Capacity[1]	Existing (2015)	V/C[2]	LOS[3]	E+P	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	35,900	13,787	0.38	A	14,388	0.40	A	D
2		I-215 NB Ramps to Western Way	4D	35,900	17,815	0.50	A	18,816	0.52	A	D
3		East of Western Way	4U	25,900	18,604	0.72	C	19,604	0.76	C	D
4		West of Patterson Avenue	4U	25,900	17,864	0.69	B	18,864	0.73	C	D
5		East of Patterson Avenue	6D	53,900	17,155	0.32	A	18,185	0.34	A	D
6		West of Webster Avenue	6D	53,900	16,756	0.31	A	17,785	0.33	A	D
7		East of Webster Avenue	6D	53,900	16,769	0.31	A	17,798	0.33	A	D
8		West of Indian Street	6D	53,900	20,018	0.37	A	21,047	0.39	A	D
9	Indian Street	South of Nandina Avenue	2D	18,750	12,654	0.67	B	12,814	0.68	B	D
10		North of Grove View Road	2D	18,750	12,339	0.66	B	12,499	0.67	B	D
11		South of Grove View Road	2D	18,750	13,803	0.74	C	14,101	0.75	C	D
12		North of Harley Knox Boulevard	4D	35,900	13,717	0.38	A	14,892	0.41	A	D

[1] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007) and Table CE-9 of the City of Perris General Plan Circulation Element.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

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5.5 OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the I-215 Freeway and Harley Knox Boulevard interchanges to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-215 Freeway mainline. Queuing analysis findings are presented in Table 5-3 for E+P traffic conditions. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline.

As shown on Table 5-3, consistent with Existing traffic conditions, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for E+P traffic conditions. Worksheets for E+P traffic conditions off-ramp queuing analysis are provided in Appendix 5.2.

5.6 TRAFFIC SIGNAL WARRANTS ANALYSIS

There are no additional study area intersections anticipated to meet either peak hour or planning level (ADT) volume based traffic signal warrants under E+P traffic conditions, in addition to those previously warranted under Existing traffic conditions (see Appendix 5.5).

5.7 RECOMMENDED IMPROVEMENTS

5.7.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

All study area intersections are anticipated to operate at acceptable LOS (LOS D or better) for E+P traffic conditions. As such, no intersection improvements have been recommended.

5.7.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON ROADWAY SEGMENTS

All study area roadway segments are anticipated to operate at acceptable LOS (LOS D or better) for E+P traffic conditions. As such, no roadway improvements have been recommended.

5.7.3 RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUES

As shown previously on Table 5-3, there are no peak hour queuing issues at the I-215 Freeway at Harley Knox Boulevard interchanges for E+P traffic conditions. As such, no improvements have been recommended.

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Table 5-3

Peak Hour Off-Ramp Queuing Analysis for E+P Conditions

Intersection	Movement	Stacking Distance (Feet)	95th Percentile Stacking Distance Required (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps / Harley Knox Bl.	SBL/T	1,330	431	395	Yes	Yes
	SBR	270	43	45	Yes	Yes
I-215 NB Ramps / Harley Knox Bl.	NBL/T	1,120	35	21	Yes	Yes
	NBR	265	52	53	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

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6 OPENING YEAR CUMULATIVE (2020) TRAFFIC CONDITIONS

This section discusses the methods used to develop Opening Year Cumulative (2020) traffic forecasts and the resulting intersection operations, roadway segment, and traffic signal warrant analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative (2020) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).

6.2 OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

To account for background traffic, other known cumulative development projects in the study area were included in addition to 10.41% of ambient growth for Opening Year Cumulative traffic conditions. The weekday ADT and weekday AM and PM peak hour volumes (in PCE) which can be expected for Opening Year Cumulative (2020) Without Project traffic conditions are shown on Exhibit 6-1.

6.3 OPENING YEAR CUMULATIVE (2020) WITH PROJECT TRAFFIC VOLUME FORECASTS

To account for background traffic, other known cumulative development projects in the study area were included in addition to 10.41% of ambient growth for Opening Year Cumulative traffic conditions in conjunction with traffic associated with the proposed Project. The weekday ADT and weekday AM and PM peak hour volumes (in PCE) which can be expected for Opening Year Cumulative (2020) With Project traffic conditions are shown on Exhibit 6-2.

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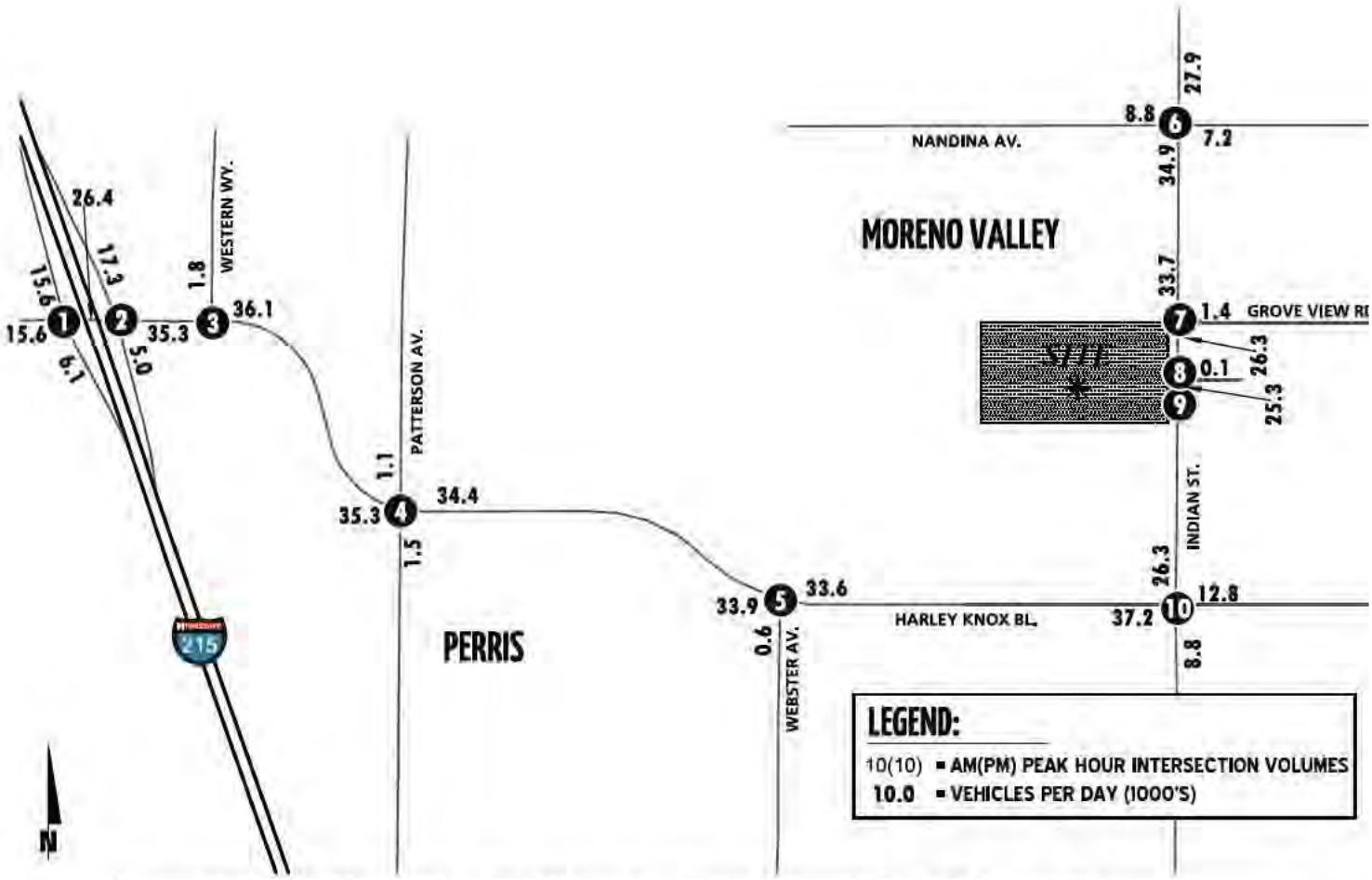
EXHIBIT 6-1: OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT TRAFFIC VOLUMES



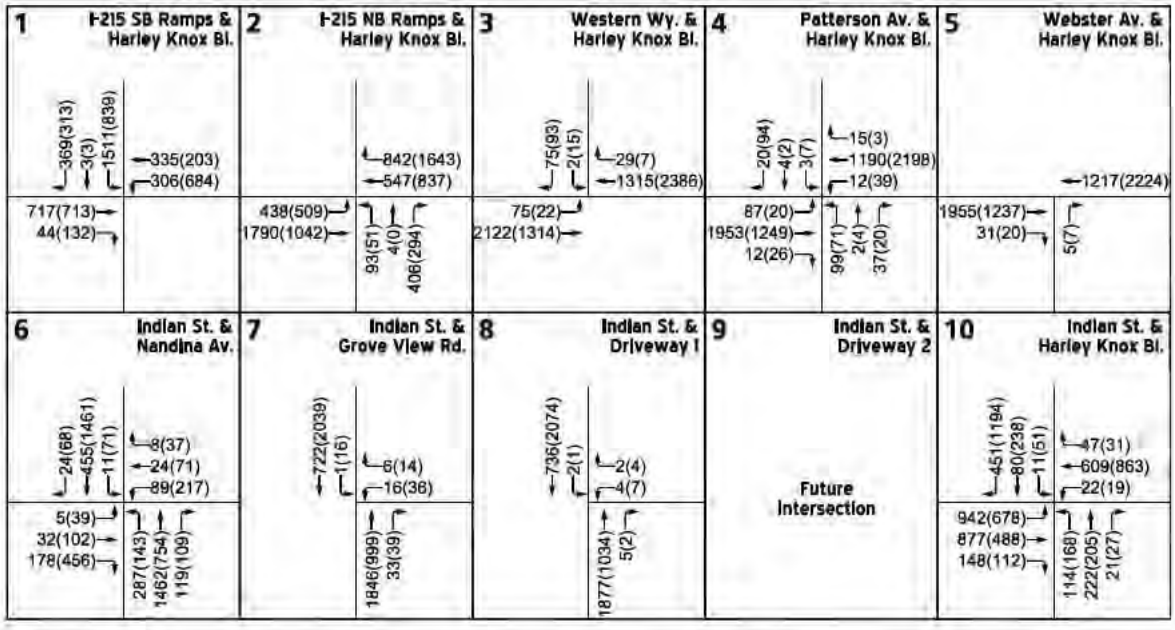


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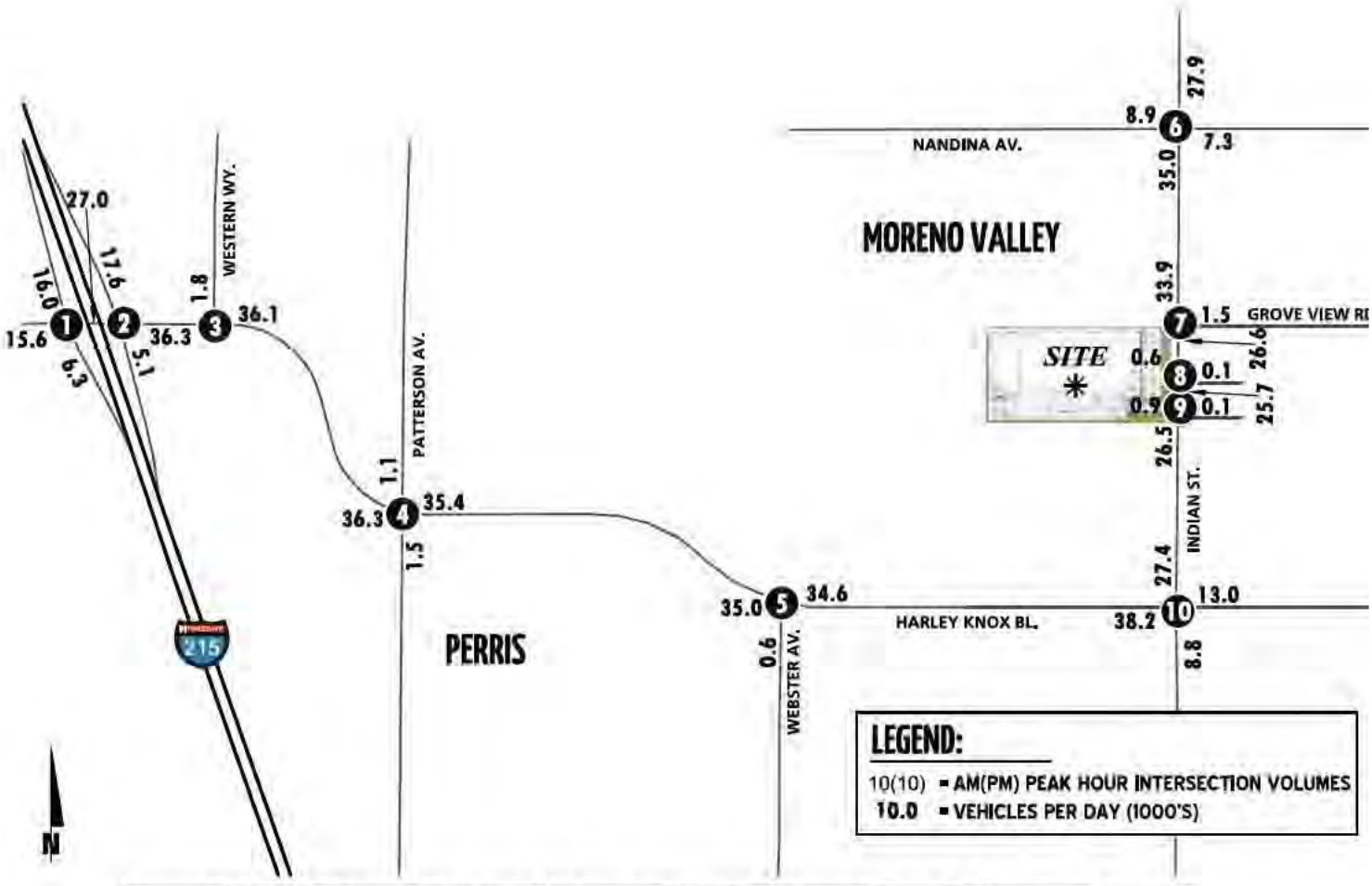
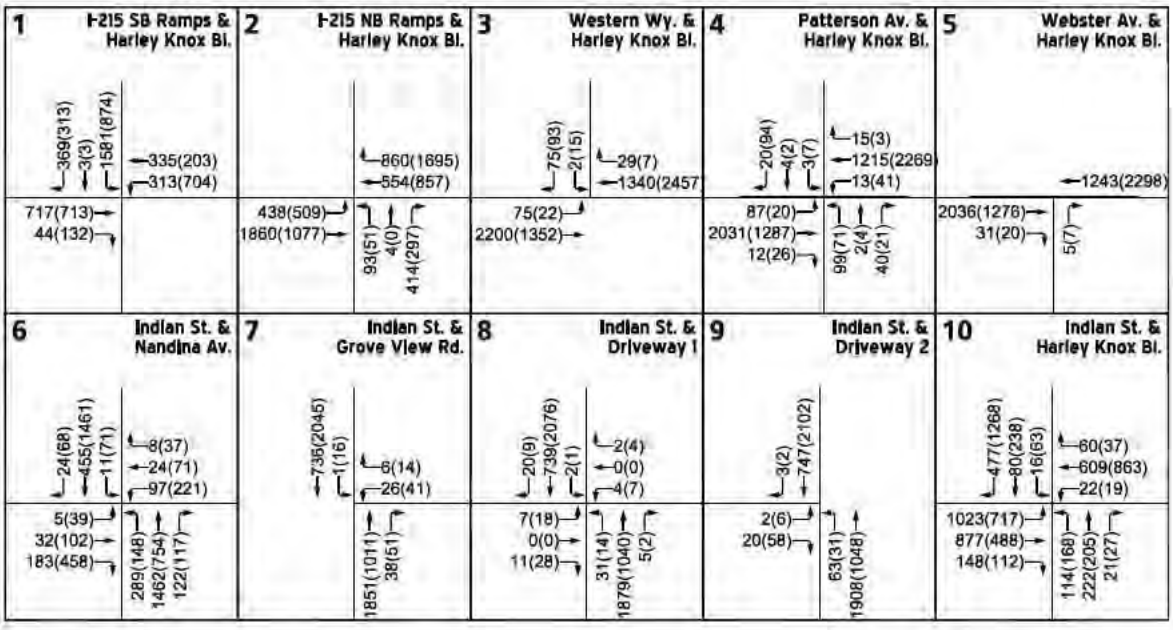
EXHIBIT 6-2: OPENING YEAR CUMULATIVE (2020) WITH PROJECT TRAFFIC VOLUMES





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6.4 INTERSECTION OPERATIONS ANALYSIS

LOS calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative conditions with roadway and intersection geometrics consistent with Section 6.1 *Roadway Improvements*. As shown in Table 6-1, the following additional study area intersections are anticipated to operate at unacceptable LOS during the peak hours under Opening Year Cumulative (2020) without Project traffic conditions:

ID	Intersection Location
1	I-215 Southbound Ramps / Harley Knox Boulevard – LOS F AM and PM peak hours
2	I-215 Northbound Ramps / Harley Knox Boulevard – LOS E AM peak hour; LOS F PM peak hour
3	Western Way / Harley Knox Boulevard – LOS F AM and PM peak hours
4	Patterson Avenue / Harley Knox Boulevard – LOS E AM peak hour; LOS F PM peak hour
7	Indian Street / Grove View Road – LOS F PM peak hour only
10	Indian Street / Harley Knox Boulevard – LOS F PM peak hour only

There are no additional intersections anticipated to operate at unacceptable LOS with the addition of Project traffic, in addition to those previously identified for Opening Year Cumulative Without Project traffic conditions. A summary of the peak hour intersection LOS for Opening Year Cumulative (2020) Without Project conditions are shown on Exhibit 6-3 and on Exhibit 6-4 for Opening Year Cumulative (2020) With Project traffic conditions. The intersection operations analysis worksheets for Opening Year Cumulative (2020) Without and With Project traffic conditions are included in Appendix 6.1 and Appendix 6.2 of this TIA, respectively. Measures to address near-term cumulative deficiencies for Opening Year Cumulative traffic conditions are discussed in Section 6.10 *Recommended Improvements.*

6.5 ROADWAY SEGMENT CAPACITY ANALYSIS

As noted previously, the roadway segment capacities are approximate figures only, and are typically used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet future forecasted traffic demand. Table 6-2 provides a summary of the Opening Year Cumulative (2020) conditions roadway segment capacity analysis based on the City of Moreno Valley and City of Perris General Plan Circulation Element Roadway Segment Capacity/(LOS) Thresholds identified previously on Table 2-3. As shown on Table 6-2, the following roadway segments are anticipated to operate at unacceptable LOS (based on daily roadway segment capacities) under Opening Year Cumulative (2020) Without Project traffic conditions.

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Table 6-1

Intersection Analysis for Opening Year Cumulative (2020) Conditions

#	Intersection	Traffic Control[2]	2020 Without Project				2020 With Project			
			Delay[1] (secs.)		LOS[3]		Delay[1] (secs.)		LOS[3]	
			AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Harley Knox Bl	TS	**180.2**	**119.9**	**F**	**F**	**199.3**	**130.7**	**F**	**F**
2	I-215 NB Ramps / Harley Knox Bl	TS	**78.5**	**>200.0**	**E**	**F**	**81.9**	**>200.0**	**F**	**F**
3	Western Wy / Harley Knox Bl	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
4	Patterson Av / Harley Knox Bl	TS	**74.0**	**85.2**	**E**	**F**	**86.5**	**114.1**	**F**	**F**
5	Webster Av / Harley Knox Bl	CSS	12.9	10.7	B	B	13.3	10.9	B	B
6	Indian St / Nandina Av	TS	29.3	44.3	C	D	30.5	53.1	C	D
7	Indian St / Grove View Rd	CSS	**78.5**	25.6	**F**	D	**98.4**	26.3	**F**	D
8	Indian St / Driveway 1	**CSS**	34.2	10.7	D	B	31.6	31.5	D	D
9	Indian St / Driveway 2	**CSS**	Does Not Exist				10.9	33.4	B	D
10	Indian St / Harley Knox Bl	TS	29.6	**>200.0**	C	**F**	34.4	**>200.0**	C	**F**

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; TS = Traffic Signal; CSS = Improvement

[3] LOS = Level of Service

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Table 6-2

Roadway Volume/Capacity Analysis for Opening Year Cumulative (2020) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS[3] Capacity[1]	2020 Without Project	V/C[2]	LOS[3]	2020 With Project	V/C[2]	LOS[3]	Acceptable LOS[3]
1	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	35,900	26,411	0.74	C	27,012	0.75	C	D
2		I-215 NB Ramps to Western Way	4D	35,900	35,262	**0.98**	**E**	36,263	**1.01**	**F**	D
3		East of Western Way	4U	25,900	36,133	**1.40**	**F**	37,133	**1.43**	**F**	D
4		West of Patterson Avenue	4U	25,900	35,316	**1.36**	**F**	36,316	**1.40**	**F**	D
5		East of Patterson Avenue	6D	53,900	34,358	0.64	B	35,388	0.66	B	D
6		West of Webster Avenue	6D	53,900	33,917	0.63	B	34,946	0.65	B	D
7		East of Webster Avenue	6D	53,900	33,587	0.62	B	34,616	0.64	B	D
8		West of Indian Street	6D	53,900	37,173	0.69	B	38,202	0.71	C	D
9	Indian Street	South of Nandina Avenue	2D	18,750	34,847	**1.86**	**F**	35,007	**1.87**	**F**	D
10		North of Grove View Road	2D	18,750	33,724	**1.80**	**F**	33,884	**1.81**	**F**	D
11		South of Grove View Road	2D	18,750	26,299	**1.40**	**F**	26,597	**1.42**	**F**	D
12		North of Harley Knox Boulevard	4D	35,900	26,266	0.73	C	27,441	0.76	C	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007) and Table CE-9 of the City of Perris General Plan Circulation Element.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

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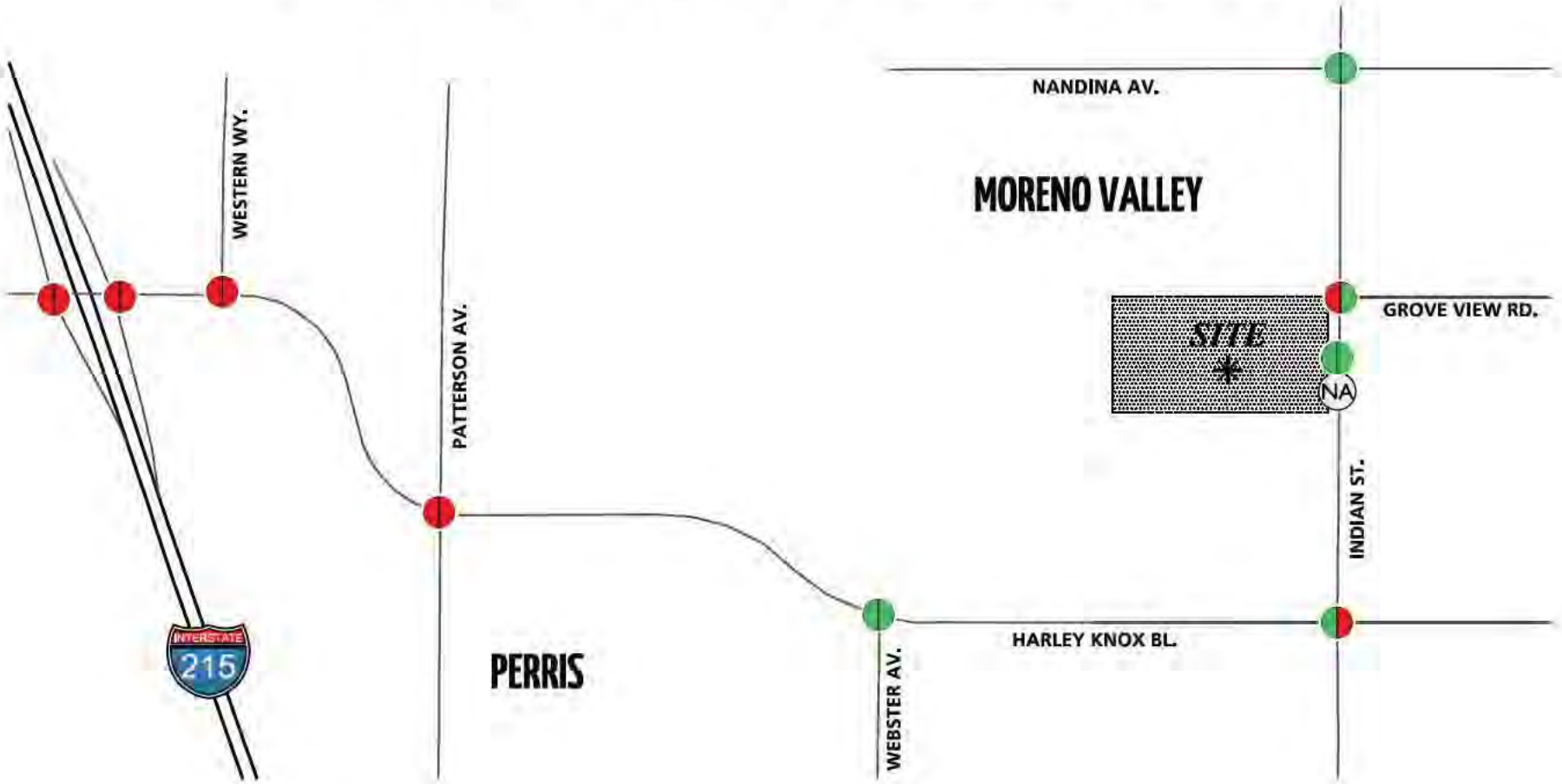
EXHIBIT 6-3: SUMMARY OF LOS FOR OPENING YEAR (2020) WITHOUT PROJECT CONDITIONS



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URBAN CROSSROADS

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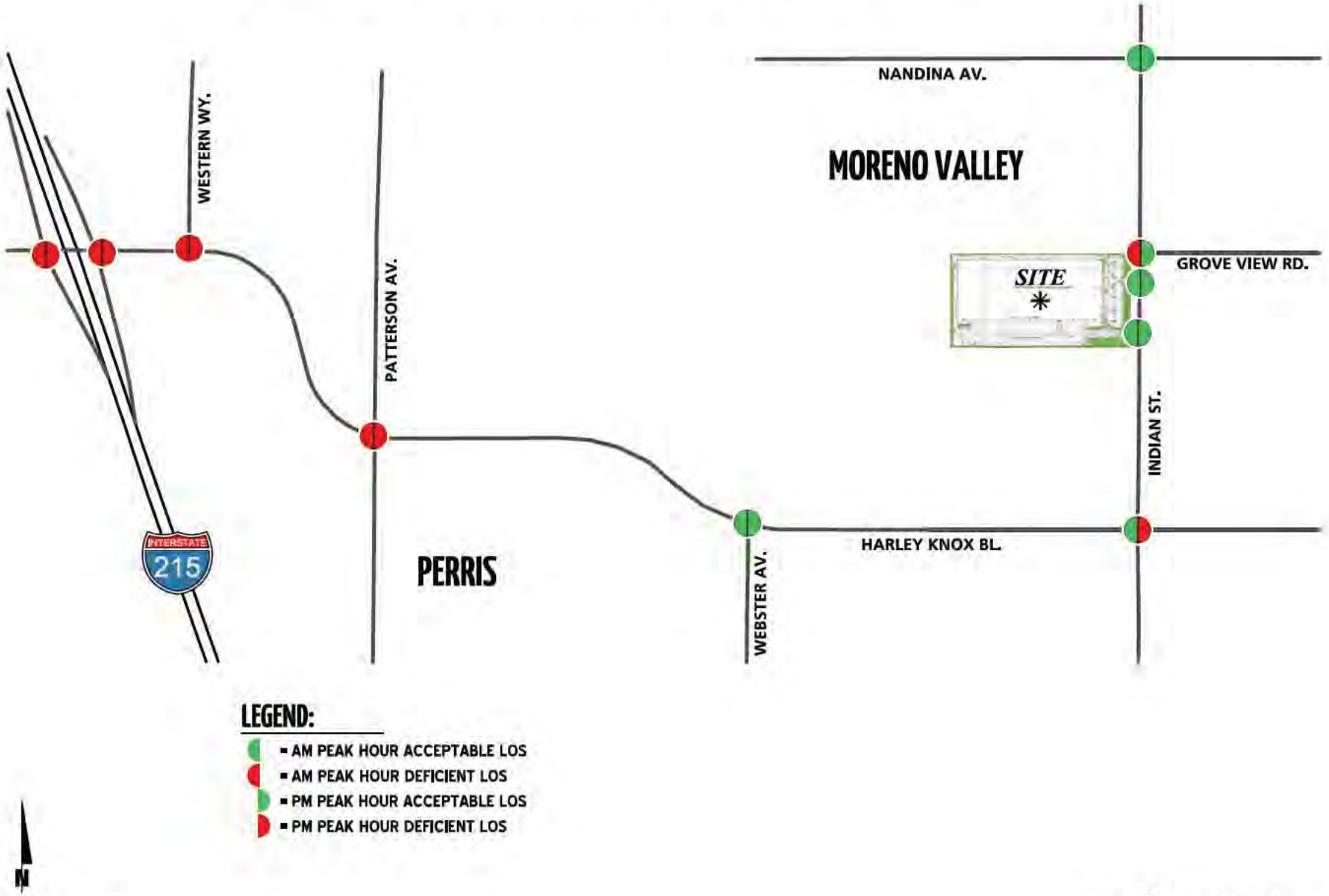
EXHIBIT 6-4: SUMMARY OF LOS FOR OPENING YEAR (2020) WITH PROJECT CONDITIONS



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URBAN CROSSROADS

ID	Street	Segment
2	Harley Knox Boulevard	I-215 NB Ramps to Western Way – LOS E
3		East of Western Way – LOS F
4		West of Patterson Avenue – LOS F
9	Indian Street	South of Nandina Avenue – LOS F
10		North of Grove View Road – LOS F
11		South of Grove View Road – LOS F

There are no additional roadway segments that are anticipated to operate at a deficient LOS with the addition of Project traffic, in addition to those previously identified for Opening Year Cumulative Without Project traffic conditions.

As previously discussed in Section 3.8 *Existing Conditions Roadway Segment Capacity Analysis*, a peak hour assessment of intersections located on either side of a deficient roadway segment has been conducted to determine if peak hour traffic flows can be accommodated by the potentially deficient roadway segment. If it is determined that peak traffic flows can be accommodated at the City's stated LOS thresholds, then roadway segment widening is typically not recommended.

The traffic study is conservative in that the Opening Year (2020) Cumulative peak hour intersection operations and roadway segment analysis does not assume the planned future roadway extension of Heacock Street to Harley Knox Boulevard. With the future extension of Heacock Street in place, future year traffic on Heacock Street, Indian Street, and Perris Boulevard in the near-term cumulative scenario would have multiple alternatives in accessing Harley Knox Boulevard. It is assumed that as a result of a reduction in traffic volumes along Indian Street and Perris Boulevard due to the Heacock Street extension, potential deficiencies to intersections and roadway segments along Perris Boulevard and Indian Street towards Harley Knox Boulevard would also potentially be reduced. Moreover, as discussed subsequently at Section 6.8.2, *Recommended Improvements to Address Deficiencies on Roadway Segments,* as improved, controlling intersections along potentially affected roadway segments would operate acceptably. The fact that controlling intersections would operate acceptably obviates the requirement for intermediary lane improvements or roadway segment widening between intersections.

6.6 Off-Ramp Queuing Analysis

A queuing analysis was performed for the off-ramps at the I-215 Freeway and Harley Knox Boulevard interchanges to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-215 Freeway mainline. Queuing analysis findings are presented in Table 6-3 for Opening Year Cumulative traffic conditions. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline.

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Table 6-3

Peak Hour Off-Ramp Queuing Analysis for Opening Year Cumulative (2020) Conditions

Intersection	Movement	Stacking Distance	2020 Without Project				2020 With Project			
			95th Percentile Stacking Distance Required (Feet)		Acceptable? [1]		95th Percentile Stacking Distance Required (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps / Harley Knox Bl.	SBL/T	1,330	**2,131** [2]	1,205 [2]	**No**	Yes	**2,255** [2]	1,268 [2]	**No**	Yes
	SBR	270	149	157	Yes	Yes	153	163	Yes	Yes
I-215 NB Ramps / Harley Knox Bl.	NBL/T	1,120	117	81	Yes	Yes	117	81	Yes	Yes
	NBR	265	528 [2]	345 [2]	Yes[3]	Yes[3]	544 [2]	365 [2]	Yes[3]	Yes[3]

BOLD = Stacking Distance does not meet the applicable jurisdictional requirements (i.e., unacceptable Stacking Distance)

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although the 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

As shown on Table 6-3, the following movement may potentially experience queuing issues during the weekday AM peak 95th percentile traffic flows for Opening Year Cumulative traffic conditions:

ID	Intersection Location
1	I-215 SB Ramps / Harley Knox Boulevard – Southbound shared left-through lane (AM peak hour only)

The 95th percentile queues for Opening Year Cumulative traffic conditions indicates potential queuing for the movement and peak hour identified above. As shown, the analysis indicates that potential queues would exceed the length of the off-ramp and could potentially spillback into the adjacent through lanes on the freeway mainline during the AM peak hour only. The addition of Project traffic is not anticipated to result in any additional queuing issues.

Worksheets for Opening Year Cumulative (2020) Without and With project traffic conditions off-ramp queuing analysis are provided in Appendix 6.3 and Appendix 6.4, respectively.

6.7 Traffic Signal Warrants Analysis

There are no additional study area intersections that are anticipated to meet either peak hour or planning level (ADT) volume based traffic signal warrants for Opening Year Cumulative traffic conditions (see Appendix 6.5 and Appendix 6.6).

6.8 Opening Year Cumulative Deficiencies and Recommended Improvements

6.8.1 Recommended Improvements to Address Deficiencies at Intersections

Improvement strategies have been recommended at intersections that have been identified as deficient in an effort to reduce each location's peak hour delay and improve the associated LOS grade to an acceptable LOS (LOS D or better). The effectiveness of the recommended improvement strategies discussed below to address Opening Year Cumulative traffic deficiencies is presented in Table 6-4.

Worksheets for Opening Year Cumulative (2020) Without and With Project traffic conditions, with improvements, HCM calculation worksheets are provided in Appendix 6.7 and Appendix 6.8, respectively.

6.8.2 Recommended Improvements to Address Deficiencies on Roadway Segments

As shown on Table 6-4, the Opening Year Cumulative peak hour analysis indicates that the adjacent study area intersections on either side of the deficient roadway segments are anticipated to operate at acceptable LOS with the recommended intersection improvements shown. Table 6-5 shows the LOS for each of the applicable roadway segments with improvements consistent with those shown on Table 6-4 for the adjacent study area intersections.

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Table 6-4

Intersection Analysis for Opening Year Cumulative (2020) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	I-215 SB Ramps / Harley Knox Bl																	
	- Without Project	TS	0	0	0	**2**	1	**0**	0	2	d	**2**	2	0	39.4	45.5	D	D
	- With Project	TS	0	0	0	**2**	1	**0**	0	2	d	**2**	2	0	42.1	46.6	D	D
2	I-215 NB Ramps / Harley Knox Bl																	
	- Without Project	TS	0	1	1	0	0	0	**2**	2	0	0	2	**1>>**	30.8	20.7	C	C
	- With Project	TS	0	1	1	0	0	0	**2**	2	0	0	2	**1>>**	31.8	20.8	C	C
3	Western Wy / Harley Knox Bl																	
	- Without Project	**TS**	0	0	0	0	1	0	**1**	2	0	0	2	d	17.4	35.8	B	D
	- With Project	**TS**	0	0	0	0	1	0	**1**	2	0	0	2	d	21.3	39.6	C	D
4	Patterson Av / Harley Knox Bl																	
	- Without Project	TS	0	1	0	0	1	0	1	**3**	1	1	**3**	1	24.4	22.2	C	C
	- With Project	TS	0	1	0	0	1	0	1	**3**	1	1	**3**	1	25.3	29.0	C	C
7	Indian St / Grove View Rd																	
	- Without Project	**TS**	0	**2**	0	1	**2**	0	0	0	0	1	0	1	7.9	8.4	A	A
	- With Project	**TS**	0	**2**	0	1	**2**	0	0	0	0	1	0	1	9.1	8.7	A	A
10	Indian St / Harley Knox Bl																	
	- Without Project	TS	2	2	1	1	2	**1>**	**2**	3	d	1	3	0	18.0	53.6	B	D
	- With Project	TS	2	2	1	1	2	**1>**	**2**	3	d	1	3	0	18.9	54.3	B	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d= Defacto Right Turn Lane; **1** = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (o movements sharing a single lane) are shown.

[3] TS = Traffic Signal

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Table 6-5

Roadway Volume/Capacity Analysis for Opening Year Cumulative (2020) Conditions With Improvements

#	Roadway	Segment Limits	Roadway Section	LOS[3] Capacity[1]	2020 Without Project	V/C[2]	LOS[3]	2020 With Project	V/C[2]	LOS[3]	Acceptable LOS[3]
2	Harley Knox Boulevard	I-215 NB Ramps to Western Way	4D	35,900	35,262	**0.98**	**E**	36,263	**1.01**	**F**	D
3		East of Western Way	**6D**	53,900	36,133	0.67	B	37,133	0.69	B	D
4		West of Patterson Avenue	**6D**	53,900	35,118	0.65	B	36,118	0.67	B	D
9	Indian Street	South of Nandina Avenue	**4D**	35,900	34,847	**0.97**	**E**	35,007	**0.98**	**E**	D
10		North of Grove View Road	**4D**	35,900	33,724	**0.94**	**E**	33,884	**0.94**	**E**	D
11		South of Grove View Road	**4D**	35,900	26,299	0.73	C	26,597	0.74	C	D
12		North of Harley Knox Boulevard	4D	35,900	26,266	0.73	C	27,441	0.76	C	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS); **6D** = Improvement

[1] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007) and Table CE-9 of the City of Perris General Plan Circulation Element.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

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As shown on Table 6-5, modeled traffic flows for certain Study Area roadway segments indicate potential LOS deficiencies. Notwithstanding, these roadway segments would operate acceptably given that, as improved, the controlling intersections along the affected roadways would operate acceptably. As such, roadway segment widening beyond those identified in Table 6-4 does not appear necessary and is not recommended.

6.10.3 Recommended Improvements to Address Off-Ramp Queues

With the implementation of the recommended intersection improvements shown on Table 6-4, which are necessary to reduce near-term cumulative impacts to less than significant levels, there are no potential queuing issues anticipated for Opening Year Cumulative traffic conditions (see Table 6-6). As such, no spill-back onto the I-215 Freeway Southbound mainline is anticipated. Worksheets for Opening Year Cumulative (2020) Without and With Project traffic conditions, with improvements, queuing analysis are provided in Appendix 6.9 and Appendix 6.10, respectively.

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Table 6-6

Peak Hour Off-Ramp Queuing Analysis for Opening Year Cumulative (2020) Conditions With Improvements

Intersection	Movement	Stacking Distance	2020 Without Project				2020 With Project			
			95th Percentile Stacking Distance Required (Feet)		Acceptable? [1]		95th Percentile Stacking Distance Required (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps / Harley Knox Bl.	SBL/T	1,330	721 [2]	420	Yes	Yes	828 [2]	444	Yes	Yes
	SBR	270	87	62	Yes	Yes	87	62	Yes	Yes
I-215 NB Ramps / Harley Knox Bl.	NBL/T	1,120	111	65	Yes	Yes	111	65	Yes	Yes
	NBR	265	503 [2]	265	Yes[3]	Yes	520 [2]	276	Yes[3]	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Although the 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-215 Freeway mainline.

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7 REFERENCES

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APPENDIX 1.1:

APPROVED TRAFFIC STUDY SCOPING AGREEMENT

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

URBAN CROSSROADS

41 Corporate Park | Suite 300 | Irvine, CA 92606 | (949) 660-1994
www.urbanXroads.com

Date: December 9, 2015 (Revised)

This letter acknowledges the City of Moreno Valley Transportation Engineering Division requirements for the traffic impact analysis of the following project:

Case No.	
Project Name:	Indian Street Commerce Center Project
Project Address:	17845 Indian Street
Project Description:	Total building is 436,350 square feet of which 349,080 square feet will be allocated to High-Cube Warehouse/Distribution Center use and 87,270 square feet to Manufacturing use
Related Cases:	

	Consultant	Developer Representative
Name:	URBAN CROSSROADS, INC. Attn: Aric Evatt	Applied Planning, Inc. Attn: Ross Geller
Address:	41 Corporate Park, Suite 300 Irvine, CA 92606	5817 Pine Avenue Suite A Chino Hills, CA 91709
Telephone:	949-336-5978	909-937-0333

I. Background

The proposed Indian Street Commerce Center development (referred to as "Project") is located at 17845 Indian Street in the City of Moreno Valley. The Project is proposed to consist of a total of 436,350 square feet, of which 349,080 square feet would be allocated to High-Cube Warehouse / Distribution Center use and 87,270 square feet to Manufacturing use within a single building.

The Project is anticipated to be built in a single phase and the opening year of 2020 will be evaluated for the purposes of this analysis (minimum five-year opening year per Moreno Valley traffic study guidelines). See preliminary site plan on **Exhibit 1**. **Exhibit 2** illustrates the study area and proposed existing and opening year intersection analysis locations.

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II. Trip Geographic Distribution and Assignment

The project trip distribution patterns were developed based on an understanding of existing travel patterns in the area, the geographical location of the site, the site's proximity to the local arterial and regional state highway system:

- **Exhibit 3:** Project Passenger Car Trip Distribution
- **Exhibit 4:** Project Trucks Trip Distribution

III. Site Trip Generation Forecast

A. Source for trip generation rates: Institute of Transportation Engineers (ITE) *Trip Generation Manual* 9th Edition (2012) for ITE Land Use Code 130 (Manufacturing) using the City of Fontana Truck Trip Generation recommended vehicle mix and ITE Land Use Code 152 (High-Cube Warehousing) using SCAQMD recommended vehicle mix.

B. Weekday AM Peak: 7:00-9:00 AM

C. Weekday PM Peak: 4:00-6:00 PM

D. Intersection and link acceptable Level of Service D for some intersections and links and Level of Service C for others based upon the current City policy. (Use Highway Capacity Manual 2010 operations procedures; parameters per County of Riverside Traffic Impact Analysis Guidelines)

Proposed Use Rates (1) (See attached **Table 1**)

Manufacturing (per TSF)	Daily:	3.820	AM:	0.730	PM:	0.730
High-Cube Warehouse (per TSF)	Daily:	1.680	AM:	0.110	PM:	0.120
Internal Trip Allowance:	Yes:		No:	X	Percentage:	
Pass-by Trip Allowance:	Yes:		No:	X	Percentage:	

(1) Institute of Transportation Engineers 9th Edition *Trip Generation Manual* (2012).

E. As noted on **Table 1**, refinements to raw trip generation estimates have been made to provide a more detailed breakdown of trips by vehicle type. Trip generation rates for both Manufacturing and High-Cube Warehouse were obtained from the ITE's most current *Trip Generation* manual.

Manufacturing: Total vehicle mix percentages were obtained from the City of Fontana's Truck Trip Generation Study for Heavy Industrial (Land Use Code 110). PCE factors were

applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCE factors are consistent with the recommended PCE factors in Appendix "C" of the San Bernardino County Congestion Management Program (CMP), 2005 Update.

High Cube Warehouse: Total vehicle mix percentages were obtained from the ITE Trip Generation manual in conjunction with the South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type for High Cube Warehouse/Distribution Center use. PCE factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCE factors are consistent with the recommended PCE factors in Appendix "C" of the San Bernardino County Congestion Management Program (CMP), 2005 Update.

F. As shown on **Table 2**, the proposed Project is anticipated to generate a net total of 1,439 PCE trip-ends per day with 153 PCE AM peak hour trips and 162 PCE PM peak hour trips. Tables 3 shows the Project trip generation based on actual vehicles. Consistent with other studies prepared for projects in the City, the PCE trip generation will be utilized for the purposes of the peak hour intersection operations analysis.

IV. Specific Project Issues to be Analyzed

A. The traffic study will address the adequacy of site access and identify specific near-term circulation improvements required at study area intersections and roadways to maintain acceptable peak hour and daily levels of service (LOS).
B. The traffic study shall address the project traffic impacts at all study intersections listed in Section VI and provide appropriate mitigation measures if applicable. Peak-hour traffic signal warrants shall be evaluated for all intersections that are not currently signalized.
C. Qualitative assessment of existing and planned non-motorized facilities (e.g., pedestrians, bike routes, trails, etc.) within the study area.
D. The turn pocket lengths will be determined through peak hour traffic simulations developed using SimTraffic software in an effort to identify the required storage capacity for turn lanes at each Project driveway.
E. In conjunction with study area intersecitons located within the City of Moreno Valley, the traffic study will also include fair share calculations for any potentially impacted study area intersection that is located outside of the City of Moreno Valley (i.e., City of Perris, etc.)

V. Study Horizon Year

A. Existing (2015)
B. Existing (2015) Plus Project
C. Opening Year Cumulative (2020) Without Project (existing to opening year-2020, assuming a growth rate of 2% per year and includes the traffic from other cumulative development projects in the vicinity)
D. Opening Year Cumulative (2020) With Project

VI. Facilities to be Studied

A. Analysis Locations: (See **Exhibit 2**)
   1. Interstate 215 Southbound Ramps / Harley Knox Boulevard
   2. Interstate 215 Northbound Ramps / Harley Knox Boulevard

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3. Western Way / Harley Knox Boulevard
4. Patterson Avenue / Harley Knox Boulevard
5. N. Webster Avenue / Harley Knox Boulevard
6. Indian Street / Nandina Avenue
7. Indian Street / Grove View Road
8. Indian Street / Driveway 1 – Full Access
9. Indian Street / Driveway 2 – Full Access
10. Indian Street / Harley Knox Boulevard

B. Roadway Segments:
All roadway segments adjacent to intersection analysis locations where the Project contributes 50 or more peak hour trips will be analyzed (e.g. all applicable approaches of intersections listed above).

VII. Open Items

A. **Cumulative Development Projects:** There is a list of cumulative projects provided on **Table 4** (also shown graphically on **Exhibit 5**) and is consistent with the cumulative lists on other recent projects. It is requested that the list of cumulative development projects be reviewed by the City and projects be removed/added, where applicable.

B. **Signal Timing:** It is requested that the City provide us with the existing signal timing for use in the traffic impact analysis for the applicable study area intersections. Caltrans has been contacted to obtain the traffic signal timing for the freeway ramps on Harley Knox Boulevard.

VIII. Deliverables

a. Draft traffic impact studies (2 copies each)
b. Final traffic impact studies (4 copies each)

All draft and final traffic impact studies shall be delivered with the appropriate review fee to the Permit Technician, Land Development Division - Moreno Valley City Hall, 14177 Frederick Street, Moreno Valley, CA 92552. Please contact the Land Development Division at 951-413-3110 prior to the delivery of the traffic study.

A review fee will be required upon submittal of the traffic study. **A signed copy of this *Scoping Agreement* must be included in the submitted draft and final traffic impact studies.**

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If you have any questions regarding this *Scoping Agreement*, please contact Eric Lewis at 951-413-3140.

Recommended By:

Aric Evatt, PTP
President
Urban Crossroads, Inc.

Approved By:

Eric Lewis, City of Moreno Valley

Attachments

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

EXHIBIT 1: PRELIMINARY SITE PLAN

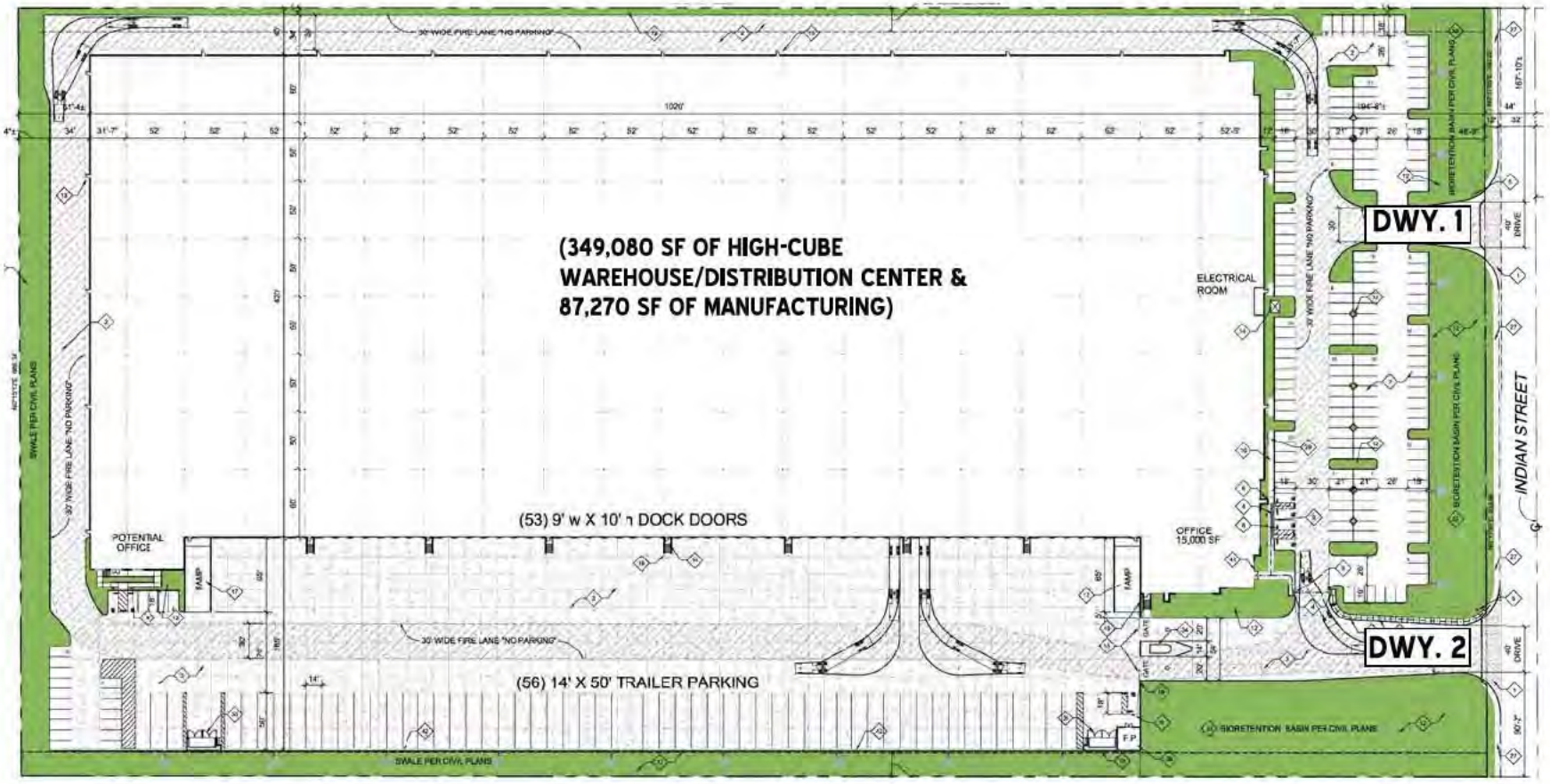

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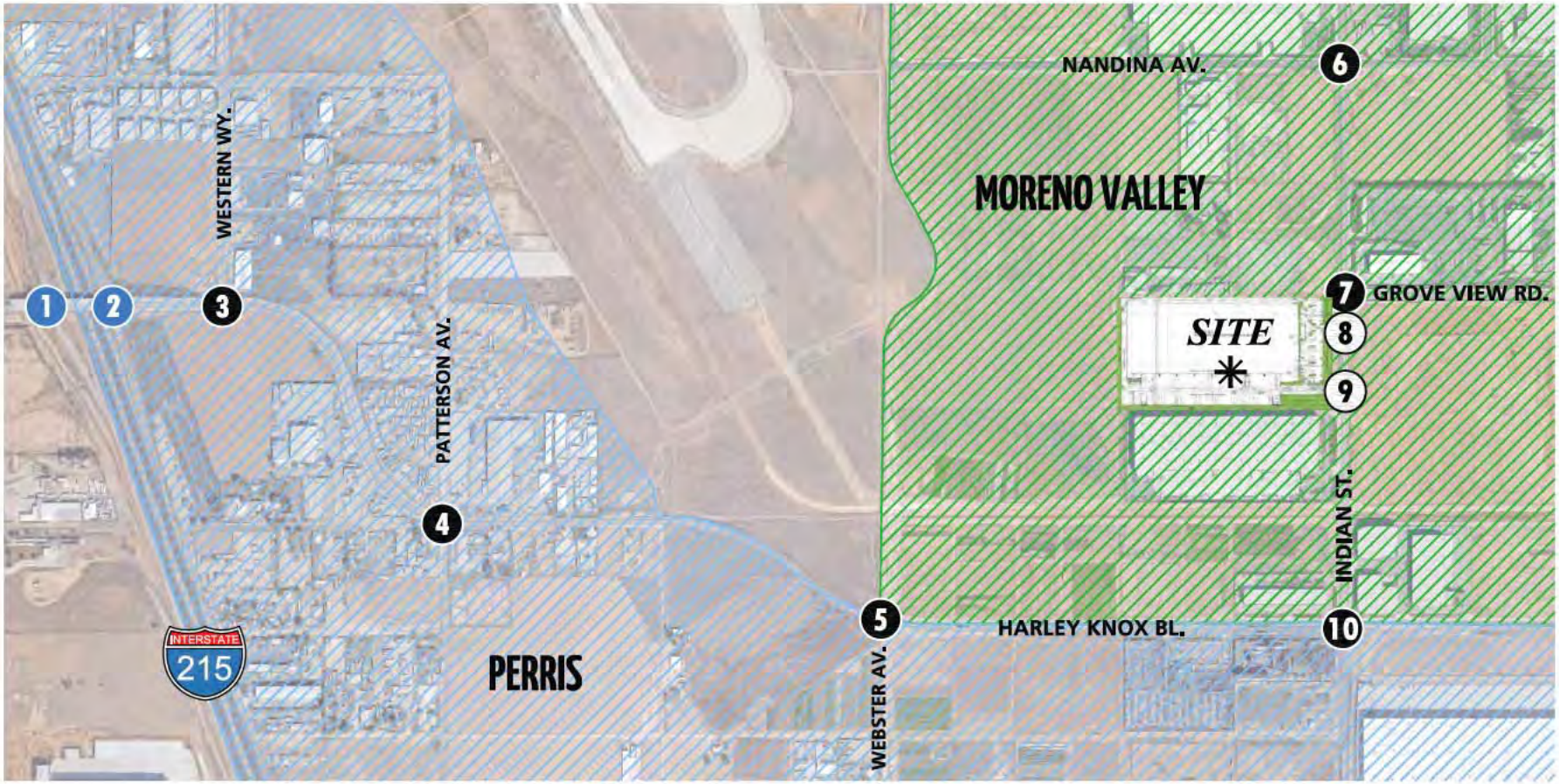
EXHIBIT 2: LOCATION MAP



LEGEND:

- (0) = EXISTING INTERSECTION ANALYSIS LOCATION
- (0) = FUTURE INTERSECTION ANALYSIS LOCATION
- (0) = RIVERSIDE COUNTY CMP INTERSECTION ANALYSIS LOCATION

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EXHIBIT 3: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION



LEGEND:

10 = PERCENT TO/FROM PROJECT

N

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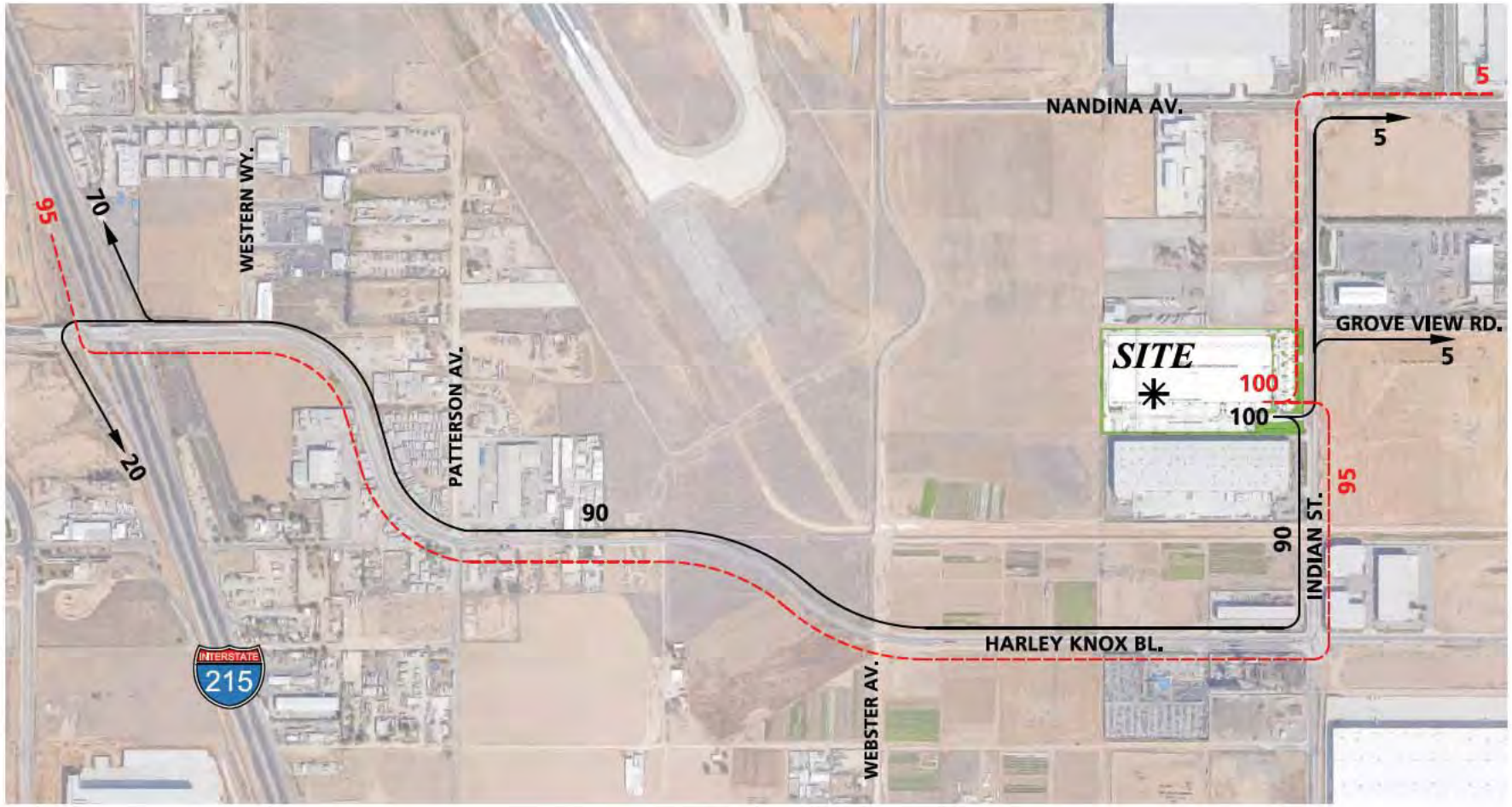
EXHIBIT 4: PROJECT (TRUCKS) TRIP DISTRIBUTION



LEGEND:

10 = PERCENT TO/FROM PROJECT

⟵ = OUTBOUND

⟵ = INBOUND

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EXHIBIT 5: CUMULATIVE DEVELOPMENT PROJECTS LOCATION MAP

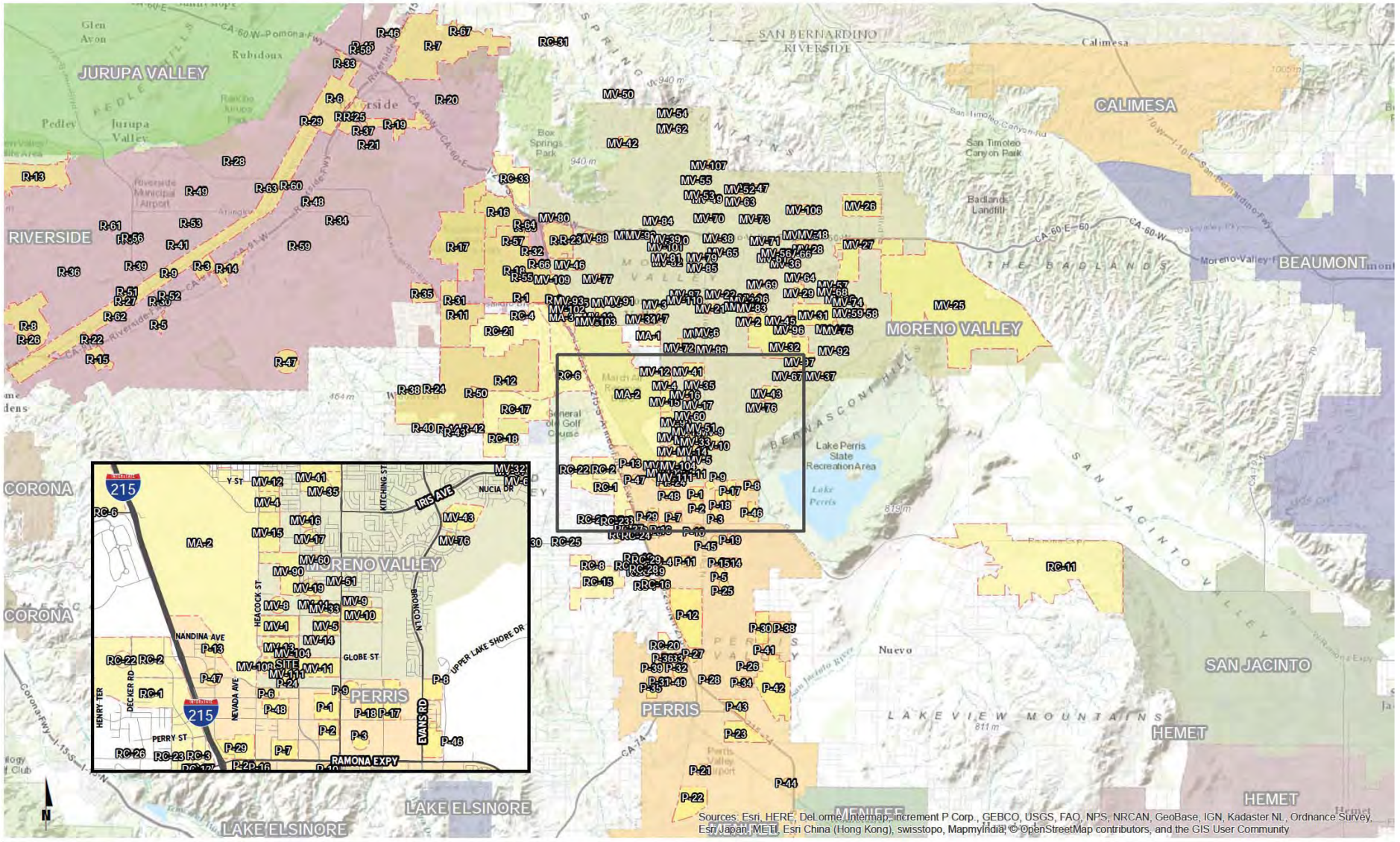

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Table 1

Project Trip Generation Rates (PCE)

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Manufacturing[3,5]	TSF	152	0.570	0.160	0.730	0.260	0.470	0.730	3.820
Passenger Cars			0.349	0.098	0.447	0.159	0.288	0.447	2.338
2-Axle Trucks			0.052	0.015	0.067	0.024	0.043	0.067	0.350
3-Axle Trucks			0.145	0.041	0.185	0.066	0.119	0.185	0.970
4-Axle+ Trucks			0.340	0.096	0.436	0.155	0.281	0.436	2.281
High-Cube Warehouse/Distribution Center[4,5]	TSF	152	0.076	0.034	0.110	0.037	0.083	0.120	1.680
Passenger Cars			0.055	0.025	0.080	0.025	0.055	0.080	1.040
2-Axle Trucks			0.007	0.003	0.010	0.004	0.009	0.013	0.211
3-Axle Trucks			0.007	0.003	0.011	0.004	0.010	0.014	0.226
4-Axle+ Trucks			0.037	0.017	0.054	0.022	0.050	0.072	1.158

Project Trip Generation Rates (Actual Vehicles)

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Manufacturing[3]	TSF	152	0.570	0.160	0.730	0.260	0.470	0.730	3.820
Passenger Cars			0.349	0.098	0.447	0.159	0.288	0.447	2.338
2-Axle Trucks			0.035	0.010	0.045	0.016	0.029	0.045	0.233
3-Axle Trucks			0.072	0.020	0.093	0.033	0.060	0.093	0.485
4-Axle+ Trucks			0.113	0.032	0.145	0.052	0.094	0.145	0.760
High-Cube Warehouse/Distribution Center[4]	TSF	152	0.076	0.034	0.110	0.037	0.083	0.120	1.680
Passenger Cars			0.055	0.025	0.080	0.025	0.055	0.080	1.040
2-Axle Trucks			0.005	0.002	0.007	0.003	0.006	0.009	0.141
3-Axle Trucks			0.004	0.002	0.005	0.002	0.005	0.007	0.113
4-Axle+ Trucks			0.012	0.006	0.018	0.007	0.017	0.024	0.386

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Ninth Edition (2012).

[2] TSF = thousand square feet

[3] Vehicle Mix Source: City of Fontana Truck Trip Generation Study for LU 110, Heavy Industrial, August 2003.

[4] Vehicle Mix Source: Total truck percentage source from ITE Trip Generation manual. Truck mix (by axle type) source from SCAQMD.
AM peak hour = 72.7% passenger cars, 6.01% 2-Axle trucks, 4.83% 3-Axle trucks, 16.46% 4-Axle trucks
PM peak hour = 66.7% passenger cars, 7.33% 2-Axle trucks, 5.89% 3-Axle trucks, 20.08% 4-Axle trucks
ADT = 61.9% passenger cars, 8.38% 2-Axle trucks, 6.74% 3-Axle trucks, 22.98% 4-Axle trucks

[5] PCE rates are per SANBAG.

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Table 2

Project Trip Generation Summary (PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Manufacturing	87.270	TSF							
Passenger Cars:			30	9	39	14	25	39	204
Truck Trips:									
2-axle:			*5*	*1*	*6*	*2*	*4*	*6*	*31*
3-axle:			*13*	*4*	*16*	*6*	*10*	*16*	*85*
4+-axle:			*30*	*8*	*38*	*14*	*24*	*38*	*199*
- Net Truck Trips (PCE) [2]			*48*	*13*	*60*	*22*	*38*	*60*	*315*
High-Cube Warehouse	349.080	TSF							
Passenger Cars:			19	9	28	9	19	28	363
Truck Trips:									
2-axle:			*2*	*1*	*3*	*1*	*3*	*5*	*74*
3-axle:			*3*	*1*	*4*	*2*	*3*	*5*	*79*
4+-axle:			*13*	*6*	*19*	*8*	*17*	*25*	*404*
- Net Truck Trips (PCE) [2]			*18*	*8*	*26*	*11*	*23*	*35*	*557*
TOTAL NET TRIPS (PCE)[3]			**115**	**39**	**153**	**56**	**105**	**162**	**1,439**

[1] TSF = thousand square feet

[2] Vehicle Mix Source: Total truck percentage source from ITE Trip Generation manual. Truck mix (by axle type) source from SCAQMD.

[3] TOTAL NET TRIPS (PCE) = Passenger Cars + Net Truck Trips (PCE).

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Table 3

Project Trip Generation Summary (Actual Vehicles)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Manufacturing	87.270	TSF							
Passenger Cars:			30	9	39	14	25	39	204
Truck Trips:									
2-axle:			*3*	*1*	*4*	*1*	*3*	*4*	*20*
3-axle:			*6*	*2*	*8*	*3*	*5*	*8*	*42*
4+-axle:			*10*	*3*	*13*	*5*	*8*	*13*	*66*
- Net Truck Trips			*19*	*6*	*25*	*9*	*16*	*25*	*128*
High-Cube Warehouse	349.080	TSF							
Passenger Cars:			19	9	28	9	19	28	363
Truck Trips:									
2-axle:			*2*	*1*	*2*	*1*	*2*	*3*	*49*
3-axle:			*1*	*1*	*2*	*1*	*2*	*2*	*40*
4+-axle:			*4*	*2*	*6*	*3*	*6*	*8*	*135*
- Net Truck Trips			*7*	*4*	*10*	*5*	*10*	*13*	*224*
TOTAL NET TRIPS (ACTUAL VEHICLES)[2]			**75**	**28**	**102**	**37**	**70**	**105**	**919**

[1] TSF = thousand square feet

[2] TOTAL NET TRIPS (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks).

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Table 4

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
	CITY OF MORENO VALLEY			
MV-1	PA 06-0152 & PA 06-0153 (First Park Nandina I & II)	High-Cube Warehouse	483.767	TSF
MV-2	Bella Vista Apartments	Apartments	220.00	DU
MV-3	PA 04-0063 (Centerpointe Buildings 8 and 9)	General Light Industrial	361.384	TSF
MV-4	PA 07-0035; PA 07-0039 (Moreno Valley Industrial Park)	General Light Industrial	204.657	TSF
		High-Cube Warehouse	409.920	TSF
MV-5	First Inland Logistics Center	High-Cube Warehouse	400.130	TSF
MV-6	TM 33607	Condo/Townhomes	52	DU
MV-7	PA 08-0093 (Centerpointe Business Park II)	General Light Industrial	99.988	TSF
MV-8	PA 06-0021; PA 06-0022; PA 06-0048; PA 06-0049 (Komar Investments)	Warehousing	287.100	TSF
MV-9	PA 06-0017 (Ivan Devries)	Industrial Park	569.200	TSF
MV-10	Modular Logistics (Dorado Property)	High-Cube Warehouse	1109.378	TSF
MV-11	PA 09-0004 (Vogel)	High-Cube Warehouse	800.000	TSF
	Sares Regis	High-Cube Warehouse	1600.000	TSF
MV-12	TM 34748	SFDR	135	DU
MV-13	First Nandina Logistics Center	High-Cube Warehouse	1450.000	TSF
MV-14	First Park Nandina III	High-Cube Warehouse	691.960	TSF
	Moreno Valley Commerce Park	High-Cube Warehouse	354.321	TSF
MV-15	March Business Center	General Light Industrial	16.732	TSF
		Warehousing	87.429	TSF
		High-Cube Warehouse	1380.246	TSF
MV-16	TM 33810	SFDR	16	DU
MV-17	TM 34151	SFDR	37	DU
MV-18	373K Industrial Facility	High-Cube Warehouse	373.030	TSF
MV-19	TM 32716	SFDR	57	DU
MV-20	TM 33417	Condo/Townhomes	60	DU
MV-21	TM 34988	Condo/Townhomes	271	DU
MV-22	TM 34216	Condo/Townhomes	39	DU
MV-23	TM 34681	Condo/Townhomes	49	DU
MV-24	PA 08-0079-0081 (WinCo Foods)	Discount Supermarket	95.440	TSF
		Specialty Retail	14.800	TSF
MV-25	Moreno Beach Marketplace (Lowe's)	Commercial Retail	175.000	TSF
	Auto Mall Specific Plan (Planning Area C)	Commercial Retail	304.500	TSF
	Westridge	High-Cube Warehouse	937.260	TSF
	ProLogis	High-Cube Warehouse	1916.190	TSF
		Warehousing	328.448	TSF
	World Logistics Center	High-Cube Warehouse	41400.000	TSF
		Warehousing	200.000	TSF
		Gas Station w/ Market	12	VFP
		Existing SFDR	7	DU
MV-26	a TR 32460 (Sussex Capital)	SFDR	57	DU
	b TR 32459 (Sussex Capital)	SFDR	11	DU
	c TR 30411 (Pacific Communities)	SFDR	24	DU
	d TR 33962 (Pacific Scene Homes)	SFDR	31	DU
	e TR 30998 (Pacific Communities)	SFDR	47	DU
MV-27	a P06-158 (Gascon)	Commercial Retail	116.360	TSF
	b Auto Mall Specific Plan (PAC)	Commercial Retail	304.500	TSF
	c ProLogis	SFDR	126	DU
		High-Cube Warehouse	1529.498	TSF
	d TR 35823 (Stowe Passco)	SFDR	261	DU
		Apartments	216	DU
MV-28	TR 36340	SFDR	275	DU
MV-29	a TR 31771 (Sanchez)	SFDR	25	DU
	b TR 34397 (Winchester Associates)	SFDR	52	DU
	c TR 32645 (Winchester Associates)	SFDR	53	DU
MV-30	Lowe's (Moreno Beach Marketplace)	Home Improvement Store	175.000	TSF
MV-31	a Senior Assisted Living	Assisted Living Units	139	DU
	b TR 31590 (Winchester Associates)	SFDR	96	DU
	c TR 32548 (Gabel, Cook & Associates)	SFDR	107	DU
	d TR 32218 (Whitney)	SFDR	63	DU
	e Medical Plaza	Medical Offices	311.633	TSF

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Table 4

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-32	a Moreno Medical Campus	Medical Offices	80.000	TSF
	b Aqua Bella Specific Plan	SFDR	2,922	DU
	c TR 34329 (Granite Capitol)	SFDR	90	DU
	d Cresta Bella	General Office	30.000	TSF
MV-33	Moreno Valley Industrial Center (Industrial Area SP)	General Light Industrial	354.810	TSF
MV-34	Centerpointe Business Park	General Light Industrial	356.000	TSF
MV-35	Moreno Valley Shopping Center	Free Standing Discount Store	189.520	TSF
		Gas Station w/ Market / Car Wash	16	VFP
MV-36	TR 31305 / Richmond American	Residential	87	DU
MV-37	TR 34329 / Granite Capitol	Residential	90	DU
MV-38	TR 31814 / Moreno Valley Investors	Residential	60	DU
MV-39	TR 33771 / Creative Design Associates	Residential	12	DU
MV-40	TR 35663 / Kha	Residential	12	DU
MV-41	TR 22180 / Young Homes	Residential	140	DU
MV-42	TR 32515	Residential	161	DU
MV-43	TR 32142	Residential	81	DU
MV-44	San Michele Industrial Center (Industrial Area SP)	General Light Industrial	865.960	TSF
MV-45	Commercial Medical Plaza	Medical Offices	311.633	TSF
MV-46	Edgemont Street, South of Eucalyptus Av. (PA14-0042)	Apartments	112	DU
MV-47	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	SFDR	9	DU
MV-48	20636 Pacific Communities	SFDR	67	DU
MV-49	31297 Randy McFarland	SFDR	7	DU
MV-50	31394 Pigeon Pass, Ltd.	SFDR	78	DU
MV-51	31442 SKG Pacific Enterprises Inc.	SFDR	63	DU
MV-52	31517 Professors Prop Six/Winchester Assoc.	SFDR	83	DU
MV-53	31621 Peter Sanchez	SFDR	25	DU
MV-54	32005 Red Hill Village, LLC	SFDR	214	DU
MV-55	32126 Salvador Torres	SFDR	35	DU
MV-56	32194 Arman Pezeshkifar	SFDR	32	DU
MV-57	32408 Sanstone Inc.	SFDR	80	DU
MV-58	32844 Winchester Associates	SFDR	17	DU
MV-59	32978 Focus Estates	SFDR	19	DU
MV-60	33024 Adam Wislar	SFDR	8	DU
MV-61	33275 Jose Guzman	SFDR	4	DU
MV-62	33388 SCH Development, LLC	SFDR	16	DU
MV-63	33436 Winchester Associates	SFDR	105	DU
MV-64	33963 Rance Garrett	SFDR	31	DU
MV-65	34043 RM3 Building and Development	SFDR	12	DU
MV-66	31621 Beazer Homes	SFDR	274	DU
MV-67	30268 Pacific Communities	SFDR	83	DU
MV-68	31414 GRF - Majestic Hills	SFDR	31	DU
	Tract 31618	SFDR	55	DU
MV-69	31494 Winchester Associates	SFDR	12	DU
MV-70	32715 GFR - Trinity	SFDR	30	DU
MV-71	33256 Granite Homes	SFDR	79	DU
MV-72	32711 Isaac Genah	SFDR	9	DU
MV-73	35530 Moreno Gilman 650, LLC-Quail Ranch	SFDR	1,105	DU
MV-74	35534 Leedco Engineers	SFDR	12	DU
MV-75	36436 CV Communities	SFDR	159	DU
MV-76	36401 Continental East Fund III, LLC	SFDR	92	DU
MV-77	32215 Winchester Associates "Scottish Village"	MFDR	194	DU
MV-78	32756 Jimmy Lee	MFDR	24	DU
MV-79	35369 Tason Myers Property	MFDR	12	DU
MV-80	35414 Lincoln Property Co. Southwest	MFDR	266	DU
MV-81	35769 Michael Chen	MFDR	16	DU
MV-82	PA09-0006 Jim Nydam	MFDR	15	DU
MV-83	35861 Frederick Homes	MFDR	24	DU
MV-84	36038 Alessandro Village Plaza, LLC	MFDR	96	DU
MV-85	35304 Jimmy Lee	MFDR	12	DU
MV-86	Alessandro & Lasselle	Shopping Center	140.000	TSF
MV-87	Food 4 Less - Fueling Station	Gas Station with Convenience Market	16	VFP
MV-88	El Paso (food court)	Fast Food no Drive Thru	--	TSF
MV-89	O'Reilly Automotive	Automobile Parts Sale	7.500	TSF
	PA15-004	Retail/Restaurant/Fast Food	2.973	TSF

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Table 4

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-90	Moreno Valley Logistics	High-Cube Warehouse	1351.770	TSF
		Light Industrial	385.748	TSF
MV-91	Restaurant	Restaurant	9.000	TSF
MV-92	Rancho Belago Plaza - Retail	Retail	14.000	TSF
MV-93	Yum Yum Donut Shop	Coffee/Donut Shop w/o Drive-Thru	4.351	TSF
MV-94	Hawthorn Inn & Suites	Hotel	79	RMS
MV-95	Sleep Inn Suites	Hotel	66	RMS
MV-96	Integrated Care Communities	Nursing Home	44.000	TSF
MV-97	Kaiser Permanente - Emergency Room Expansion	Medical Offices	--	TSF
MV-98	Moreno Valley Professional Center	General Office	84.000	TSF
MV-99	Olivewood Plaza - Office Building	General Office	23.000	TSF
MV-100	Renaissance Village of Moreno Valley	Senior Adult Housing-Attached	44	DU
MV-101	Riverside County Office Building	General Office	52.000	TSF
MV-102	Gateway Business Park	Residential Condo/Townhouse	34	DU
MV-103	Shaw Development	High-Cube Warehouse	367.000	TSF
MV-104	IDS/Real Estate Group - Nandina Distribution Center	High-Cube Warehouse	697.000	TSF
MV-105	Stoneridge Town Centre - Vacant Restaurant	Restaurant	5700.000	TSF
MV-106	Ironwood Residential	SFDR	144	DU
MV-107	TTM 31592 (P 13-078) Covey Ranch	SFDR	115	DU
MV-108	PA 06-0014 (Pierce Hardy Limited Partnership)	Lumbar Yard	67.000	TSF
MV-109	P06-1408	Retail	75.300	TSF
MV-110	PA13-009	Gas Station	16	VFP
MV-111	Moval Assemblage	High-Cube Warehouse	459.945	TSF
MARCH JOINT POWERS AUTHORITY				
MA-1	March Lifecare Campus Specific Plan[4]	Medical Offices	190.000	TSF
		Commercial Retail	210.000	TSF
		Research & Education	200.000	TSF
		Hospital	50	Beds
		Institutional Residential	660	Beds
MA-2	Airport Master Plan	Airport Use	559.000	TSF
MA-3	Freeway Business Center (March JPA)	High-Cube Warehouse	710.083	TSF
COUNTY OF RIVERSIDE				
RC-1	SP 341; PP 21552 (Majestic Freeway Business Center)	High-Cube Warehouse	6100.715	TSF
RC-2	PP 20699 (Oleander Business Park)	Warehousing	1206.710	TSF
RC-3	Ramona Metrolink Station	Light Rail Transit Station	300	SP
RC-4	PP 22925 (Amstar/Kaliber Development)	Office (258.102 TSF)	258.102	TSF
		Warehousing	409.312	TSF
		General Light Industrial	42.222	TSF
		Retail	10.000	TSF
RC-5	Alessandro Metrolink Station	Light Rail Transit Station	300	SP
RC-6	Meridian Business Park North	Industrial Park	5985.000	TSF
RC-7	PP 18908	General Light Industrial	133.000	TSF
RC-8	Tract 33869	SFDR	39.000	DU
RC-9	PP 16976	General Light Industrial	85.000	TSF
RC-10	PP 21144	Industrial Park	190.802	TSF
RC-11	a Villages of Lakeview	SFDR	860	DU
		Condo/Townhomes	1,920	DU
		Elementary School	1,200	STU
		Commercial Retail	100.000	TSF
		Soccer Complex	12	Fields
		City Park	8.9	AC
		County Park	8.1	AC
		Regional Park	107.1	AC
	b Motte Lakeview Ranch	SFDR	847	DU
		Condo/Townhomes	686	DU
		Apartments	467	DU
		Elementary School	650	STU
		Middle School	300	STU
		Commercial Retail	120.000	TSF
		Regional Park	177.0	AC
RC-12	CUP03315	Gas Station w/ Market	17	VFP
		Fast Food w/o Drive Thru	5.600	TSF
		High-Turnover Restaurant	6.500	TSF
RC-13	PP23342	Industrial Park	180.600	TSF
RC-14	TR30592	SFDR	131	DU

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Table 4

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
RC-15	Rider Street Quarry	Quarry	2500.0	AC
RC-16	PP 20711	Manufacturing	20.0	AC
	Yocum Baldwin	Warehousing	46.8	AC
RC-17	March Business Center - South Campus	Shopping Center	108.900	TSF
		Industrial Park	1336.700	TSF
		Large Industrial Park	3269.000	TSF
		General Office Building	140.600	TSF
		Manufacturing	215.600	TSF
		Warehousing	1379.200	TSF
		Park	50.0	AC
		R&D	1611.800	TSF
RC-18	Ben Clark Training Facility	Students	5,045	STU
		Employees	354	EMP
RC-19	PP 20103	Gen. Light Industrial	290.985	TSF
RC-20	Nuevo Business Park	Gen. Light Industrial	357.156	TSF
		Warehousing	1767.618	TSF
RC-21	Meridian (March Business Park SP)	Business Park	41917.000	TSF
RC-22	Blanding Assemblage	High-Cube Warehouse	707.880	TSF
RC-23	CUP 03527	Warehousing	8.000	TSF
RC-24	CUP 03599	Hotel	52.798	TSF
RC-25	PP 24608	Retail	9.280	TSF
RC-26	PM 32699	SFDR	2.00	DU
RC-27	PP 25699	Fast-Food w/Drive Thru	2.800	TSF
		Retail	19.000	TSF
RC-28	TR 30592	SFDR	131.00	DU
RC-29	PP 25768	Manufacturing	52.450	TSF
RC-30	CUP 03620R1	Gas Station w/ Market	8.00	VFP
RC-31	TTM 33410 Box Springs	SFDR	142	DU
RC-32	Knox Logistics	High-Cube Warehouse	1,259.050	TSF
RC-33	University Highlands	SFDR	405	DU
		Condo/Townhomes	320	DU
		Apartments	1,475	DU
		Shopping Center	50.0	TSF
		Parks	42.4	AC
CITY OF RIVERSIDE				
R-1	P07-1028 (Alessandro Business Park)	General Light Industrial	662.018	TSF
	Alessandro and Gorgonio	Fast Food w/Drive Thru	4.050	TSF
R-2	Alessandro Bl. (APN 263-091-008; 263-100-019; 263-100-005; P14-0841 to 0848)	Commercial and Industrial Complex	101.580	TSF
R-3	California Baptist University Specific Plan	University	157.0	AC
R-4	Canyon Springs Specific Plan	Hospital	280	BEDS
		Medical-Dental Office	370.000	TSF
		Senior Adult Housing-Attached	234	DU
		Assisted Living	267	BEDS
R-5	Citrus Business Park Specific Plan	Industrial Business Park	49.0	AC
R-6	Downtown Specific Plan	Residential	5,000	DU
R-7	Hunter Business Park	Industrial	1300.0	AC
R-8	La Sierra University Specific Plan	Mixed-Use		
R-9	Magnolia Avenue Specific Plan	Mixed-Use/Very High Residential	1473.0	AC
R-10	Marketplace Specific Plan	Commercial Retail/Office	200.0	AC
R-11	Mission Grove Specific Plan	Business/Office Park	56.8	AC
		Commercial Retail	68.1	AC
		High Density Residential	53.8	AC
		Low Density Residential	78.4	AC
		Medium Density Residential	155.3	AC
R-12	Orangecrest Specific Plan	Rural Residential	2.1	AC
		Business/Office Park	2.7	AC
		Commercial Retail	139.0	AC
		High Density Residential	13.7	AC
		Low Density Residential	540.8	AC
		Medium Density Residential	1217.8	AC
		Public Facilities/Institutions	121.6	AC
		Public Park	59.5	AC
R-13	Rancho La Sierra Specific Plan	SFDR	598	DU
R-14	Riverside Auto Center Specific Plan	Auto Center		

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
R-15	Riverwalk Vista Specific Plan	Residential	402	DU
R-16	Sycamore Canyon Specific Plan	Hillside Residential	41.8	AC
		Low Density Residential	97.3	AC
		Medium Density Residential	14.8	AC
		Very Low Density Residential	884.2	AC
		Public Park	27.9	AC
R-17	Sycamore Canyon Business Park Specific Plan	Business/Office Park	847.2	AC
		Commercial Retail	10.3	AC
R-18	Sycamore-Highlands Specific Plan	Commercial Retail	14.6	AC
		High Density Residential	52.2	AC
		Medium Density Residential	99.1	AC
		Public Facilities	1.6	AC
			144.2	AC
		Very Low Density Residential	49.1	AC
R-19	University Avenue Specific Plan	Mixed-Use	Varies	
R-20	807 Blaine Street (P09-0717; P09-0718)	Apartments	55	DU
R-21	2340 Fourteenth Street (P09-0808; P08-0809)	Senior Housing	134	BEDS
R-22	Park Sierra Avenue (P14-0026; P14-0027)	Fast Food w/Drive Thru	3.500	TSF
R-23	6287 Day Street (P10-0090; P10-0091)	Gas Station	2	VFP
	2570 Canyon Springs Parkway (P08-0274; P08-0275)	Bank w/ Drive Thru	2.746	TSF
	6211 Valley Springs Parkway (Steak 'N Shake Restaurant; P14-0536)	Fast Food w/Drive Thru	3.750	TSF
R-24	N. of Van Buren Boulevard; W. of Wood Street (P10-0808; P10-0708)	Fast Food w/Drive Thru	2.361	TSF
R-25	E. of Commerce St., between Mission Inn Av. and Ninth St. (P14-0045; P14-0046; P14-0047; P14-0048; P14-0049)	Apartments	208	DU
R-26	NWC of Riverwalk Parkway and Flat Rock Drive (P12-0019; P12-0156; P12-0158)	Convenience Store	2.400	TSF
		Coffee Shop	3.946	TSF
R-27	3875 Dawes Street (P10-0438; Magnolia Garden Condominiums)	Condo/Townhomes	62	DU
R-28	5938-5944 Grand Avenue (P12-0266; P12-0267; P12-0268)	Senior Housing	37	DU
R-29	4445 Magnolia Avenue (P13-0207; P13-0208; P13-0209; P13-0210; P13-0211)	Hospital Expansion	Varies	
R-30	SR-91/Van Buren Commercial	Commercial Retail	23.565	TSF
R-31	360 Alessandro Boulevard (P12-0419; P12-0557; P12-0558; P12-0559)	Bank	3.858	TSF
R-32	6465 Sycamore Canyon Boulevard	Health Club	4.000	TSF
R-33	2450 Market Street (P13-0087; P13-0262)	Apartments	77	DU
R-34	6091 Victoria Avenue (P13-0432)	Day Care	1.831	TSF
R-35	14601 Dauchy Av. - TM 36370 (P12-0601; P12-0697; P12-0698)	SFDR	10	DU
	TM 32180 (P07-1073)	SFDR	9	DU
	18875 Moss Road	SFDR	8	DU
	South of Clarke St., west of Crystal View Terrace (PM 34583' {09-0141; P09-173)	SFDR	3	DU
R-36	4824 Jones Avenue (P13-0181; P13-0182)	Church	23.124	TSF
R-37	2586 University avenue (P13-0650; P13-0651)	Bed and Breakfast	3.618	TSF
R-38	18580 Van Buren Boulevard (P08-0402; P13-0822)	Auto Repair Shop	8.142	TSF
R-39	4247 Van Buren Boulevard (P13-0785; P13-0787)	Church Expansion	12.166	TSF
R-40	SWC of Lurin Avenue and Wood Road (P06-0900; P08-0269; P08-0270; TTM 32301)	SFDR	20	DU
R-41	8616 California Avenue (P08-0084; PM 35852)	Condo/Townhomes	21	DU
R-42	19811 Lurin Avenue (P06-1355; TM 33480)	SFDR	32	DU
R-43	APN:266140029, 030 (P06-1396; Mariposa Avenue; TM 33481)	SFDR	25	DU
R-44	APN:266140002, 021, 022 (P06-1404; Lurin Avenue; TM 33482)	SFDR	29	DU
R-45	3719 Strong Street (P05-0269; P08-0416; TM 33550)	SFDR	9	DU
R-46	1006 & 1008 Clark Street (P06-0782; TM 34908)	SFDR	15	DU
R-47	E. of Gratton St., W. of Corsica Av., N. of Van Buren Bl. (P05-1528; P09-0087; TM 34509)	SFDR	50	DU
R-48	NWC of Dominion Avenue and Division Street (P08-0396; P08-0397; P08-0398; P08-0399; TM 35620)	Condo/Townhomes	36	DU
R-49	6639 Hillside Avenue (P08-0727; PM 35901)	Industrial	5	LOTS
R-50	19985 Van Buren Boulevard (P10-0118; Gless Ranch)	Commercial Retail	425.447	TSF
R-51	3990 Reynolds Road (P12-0021; P12-0022; P12-0074; PM 36442)	Condo/Townhomes	102	DU
R-52	NEC of Martha Way & Everest Avenue (P13-0389; TM 36579)	SFDR	5	DU
R-53	4325, 4335, 4345, 4355, 4375 Adams Street (P13-0723; P13-0724; P13-0725; TM 36654)	SFDR	62	DU
R-54	5200 Van Buren Boulevard (P09-0600; P09-0601; Walmart Expansion)	Free Standing Discount Store	22.272	TSF
R-55	P06-0160	Gen. Light Industrial	316.224	TSF
	P06-1281	Warehousing	107.732	TSF

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
R-56	9241 & 9265 Audrey Avenue (P12-0184; P12-0185; P12-0187; Azar Plaza)	Commercial Retail	6.150	TSF
R-57	Office, Magnon & Panattoni	Office	131.000	TSF
		Warehousing	1400.000	TSF
		Warehousing	300.000	TSF
		Warehousing	216.000	TSF
R-58	1710 Main Street (P12-0717)	Family Dollar Store	8.039	TSF
R-59	2861 Mary Street (P12-0442; P12-0443; P12-0444)	Shopping Center	56.101	TSF
R-60	3545 Central Avenue (P12-0741; P12-0743)	Riverside Plaza Renovations	35.0	AC
R-61	5731, 5741, 5761 & 5797 Pickler Street (P13-0198; P13-0199; P13-0200; P13-0201)	Apartments	30	DU
R-62	3705 Tyler Street (P13-0501; P13-0502)	Restaurant	6.000	TSF
R-63	6570 Magnolia Avenue; 3739 & 3747 Central Avenue (P13-0196; P13-0197)	Fast Food w/Drive Thru	3.795	TSF
R-64	5940-5980 Sycamore Canyon Boulevard (P13-0553; P13-0554; P13-0583; P14-0065)	Apartments	275	DU
R-65	SEC Sycamore Canyon Boulevard & Box Springs Road (P13-0607; P13-0608; P0609; P13-0854)	General Light Industrial	171.616	TSF
R-66	P06-0591	Office	37.939	TSF
		Warehousing	782.188	TSF
		Manufacturing	168.294	TSF
R-67	474 Palmyrita Avenue (P13-0956; P13-0959; P13-0960; P13-0963; P13-0964; P13-0965; P13-0966)	High-Cube Warehouse	1461.449	TSF
	CITY OF PERRIS			
P-1	P 05-0113 (IDI)	High-Cube Warehouse	1750.000	TSF
P-2	P 05-0192 (Oakmont I)	High-Cube Warehouse	697.600	TSF
P-3	P 05-0477	High-Cube Warehouse	462.692	TSF
P-4	Rados Distribution Center	High-Cube Warehouse	1200.000	TSF
P-5	Investment Development Services (IDS) II	High-Cube Warehouse	350.000	TSF
P-6	P 07-09-0018	Warehousing	170.000	TSF
P-7	P 07-07-0029 (Oakmont II)	High-Cube Warehouse	1600.000	TSF
P-8	TR 32707	SFDR	137	DU
P-9	TR 34716	SFDR	318	DU
P-10	P 05-0493 (Ridge I)	High-Cube Warehouse	700.000	TSF
P-11	Ridge II	High-Cube Warehouse	2000.000	TSF
P-12	Harvest Landing Specific Plan	SFDR	717	DU
		Condo/Townhomes	1,139	DU
		Sports Park	16.7	AC
		Business Park	1233.401	TSF
		Shopping Center	73.181	TSF
	Perris Marketplace	Shopping Center	450.000	TSF
P-13	P 06-0411 (Concrete Batch Plant)	Manufacturing	2.000	TSF
P-14	Jordan Distribution	High-Cube Warehouse	378.000	TSF
P-15	Aiere	High-Cube Warehouse	642.000	TSF
P-16	P 08-11-0005; P 08-11-0006 (Starcrest)	High-Cube Warehouse	454.088	TSF
P-17	Stratford Ranch Specific Plan	High-Cube Warehouse	1725.411	TSF
P-18	Stratford Ranch Specific Plan	High-Cube Warehouse	480.000	TSF
		General Light Industrial	120.000	TSF
P-19	P05-0493	Logistics	597.370	TSF
P-20	Starcrest, P011-0005; 08-11-0006	General Light Industrial	454.088	TSF
P-21	South Perris Industrial Phase 1	Logistics	787.700	TSF
P-22	South Perris Industrial Phase 2	Logistics	3448.734	TSF
P-23	South Perris Industrial Phase 3	Logistics	3166.857	TSF
P-24	P 04-0343	Warehousing	41.650	TSF
P-25	P 06-0228	General Light Industrial	149.738	TSF
P-26	P 06-0378	Senior Housing	429	DU
P-27	P 11-09-0011	Retail	80.000	TSF
P-28	P 12-05-0013	Apartments	75	DU
P-29	P 12-10-0005	High-Cube Warehouse	1463.887	TSF
P-30	TR 30850	Residential	496	DU
P-31	TR 30973	Residential	35	DU
P-32	TR 31225	Residential	57	DU
P-33	TR 31226	Residential	82	DU
P-34	TR 31240	Residential	114	DU
P-35	TR 31407	Residential	243	DU

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
P-36	TR 31650	SFDR	61	DU
P-37	TR 31659	SFDR	161	DU
P-38	TR 32041	Residential	122	DU
P-39	TR 32406	SFDR	15	DU
P-40	TR 33193	Townhomes	94	DU
P-41	TR 33338	Residential	75	DU
P-42	Park West Specific Plan	SFDR	521	DU
		Elementary School	750	STU
		Neighborhood Park	5.0	AC
P-43	The Venue	Commercial Retail	642.627	TSF
	Retail on San Jacinto	Commercial Retail	217.800	TSF
	Retail on Redlands	Fast Food w/ Drive Thru	4.500	TSF
		Pharmacy w/ Drive Thru	14.000	TSF
		Specialty Retail	31.500	TSF
P-44	South Perris Metrolink Station	Light Rail Transit Station	680	SP
P-45	IDS 04-0464	High-Cube Warehouse	1686.760	TSF
P-46	TTM 32708 (50% Complete)	SFDR	238	DU
P-47	PM 34199	Gen. Light Industrial	46.500	TSF
	DPR 05-0387	Gen. Light Industrial	9.854	TSF
	DPR 05-0452	Warehousing	31.200	TSF
	TPM 34697	Gen. Light Industrial	47.400	TSF
	DPR 06-0396	Warehousing	159.823	TSF
P-48	Integra Pacific Industrial Facility	High-Cube Warehouse	880.000	TSF

[1] SFDR = Single Family Detached Residential ; MFDR = Multi-Family Detached Residential

[2] DU = Dwelling Units; TSF = Thousand Square Feet; SP = Spaces; VFP = Vehicle Fueling Positions; RMS = Rooms; AC = Acres; EMP = Employees

[3] Source: Cactus Avenue and Commerce Center Drive Commercial Center TIA, Urban Crossroads, Inc., December 9, 2008 (Revised).

[4] Source: March Lifecare Campus Specific Plan Traffic Impact Analysis, Mountain Pacific, Inc., May 2009 (Revised).

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APPENDIX 1.2:

CENTRAL TUMF ZONE TRANSPORTATION IMPROVEMENT PROGRAM

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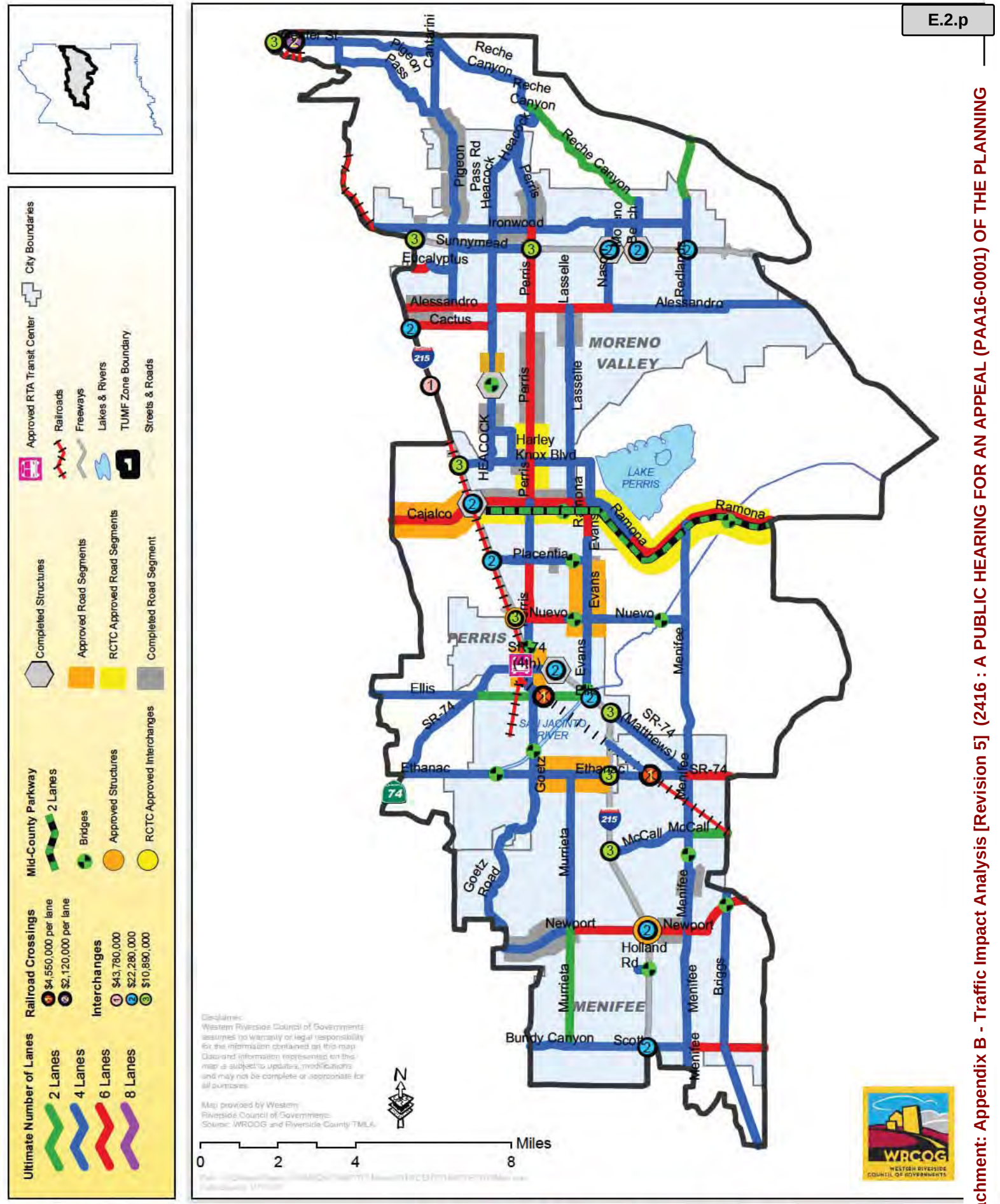

Administrative Amendment Approved April 2016

2016 Central TUMF Zone Transportation Improvement Pro

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APPENDIX 1.3:

SITE ACCESS QUEUING ANALYSIS

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Intersection: 7: Indian Street & Grove View Road

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	78	44	141	141	21	76	161
Average Queue (ft)	23	10	42	44	1	11	35
95th Queue (ft)	56	34	118	125	10	44	109
Link Distance (ft)		1265	124	124		1304	1304
Upstream Blk Time (%)			1	1			
Queuing Penalty (veh)			6	8			
Storage Bay Dist (ft)	210				120		
Storage Blk Time (%)						0	
Queuing Penalty (veh)						0	

Intersection: 8: Indian Street & Driveway 1/Driveway

Movement	EB	WB	NB	NB	NB	SB
Directions Served	LTR	LTR	L	T	TR	L
Maximum Queue (ft)	44	35	33	66	73	22
Average Queue (ft)	15	6	8	4	6	2
95th Queue (ft)	40	26	29	27	34	12
Link Distance (ft)	131	221		284	284	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			100			50
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 9: Indian Street & Driveway 2

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	49	65
Average Queue (ft)	20	24
95th Queue (ft)	47	52
Link Distance (ft)	155	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 13

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Intersection: 7: Indian Street & Grove View Road

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	96	40	140	144	98	1332	1334
Average Queue (ft)	35	10	37	42	16	1053	1087
95th Queue (ft)	76	36	111	125	56	1758	1745
Link Distance (ft)		1265	123	123		1304	1304
Upstream Blk Time (%)			1	1		3	7
Queuing Penalty (veh)			4	7		30	71
Storage Bay Dist (ft)	210				120		
Storage Blk Time (%)						9	
Queuing Penalty (veh)						1	

Intersection: 8: Indian Street & Driveway 1/Driveway

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	153	73	46	92	104	18	182	159
Average Queue (ft)	121	26	10	5	11	1	54	123
95th Queue (ft)	194	70	33	37	56	9	153	181
Link Distance (ft)	138	218		296	296		123	123
Upstream Blk Time (%)	73						2	16
Queuing Penalty (veh)	0						18	168
Storage Bay Dist (ft)			100			50		
Storage Blk Time (%)				0		0	3	
Queuing Penalty (veh)				0		0	0	

Intersection: 9: Indian Street & Driveway 2

Movement	EB	NB	SB	SB
Directions Served	LR	L	T	TR
Maximum Queue (ft)	170	66	324	326
Average Queue (ft)	150	21	192	294
95th Queue (ft)	191	53	369	388
Link Distance (ft)	154		296	296
Upstream Blk Time (%)	90		2	19
Queuing Penalty (veh)	0		17	200
Storage Bay Dist (ft)		100		
Storage Blk Time (%)		0		
Queuing Penalty (veh)		1		

Zone Summary

Zone wide Queuing Penalty: 517

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 3.1:

EXISTING TRAFFIC COUNTS – DECEMBER 2015

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	I-Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	56	0	28	8	84	33	100	0	0	133	0	0	0	0	0	0	130	0	0	130	8	347	355
07:15 AM	63	0	31	16	94	26	45	0	0	71	0	0	0	0	0	0	133	2	2	135	18	300	318
07:30 AM	77	3	36	24	116	43	25	0	0	68	0	0	0	0	0	0	149	2	1	151	25	335	360
07:45 AM	89	0	26	11	115	32	25	0	0	57	0	0	0	0	0	0	109	4	0	113	11	285	296
Total	285	3	121	59	409	134	195	0	0	329	0	0	0	0	0	0	521	8	3	529	62	1267	1329
08:00 AM	75	0	24	4	99	27	22	0	0	49	0	0	0	0	0	0	47	0	0	47	4	195	199
08:15 AM	40	0	24	8	64	19	18	0	0	37	0	0	0	0	0	0	39	2	2	41	10	142	152
08:30 AM	48	1	19	7	68	19	14	0	0	33	0	0	0	0	0	0	39	1	0	40	7	141	148
08:45 AM	50	0	33	10	83	20	15	0	0	35	0	0	0	0	0	0	28	0	0	28	10	146	156
Total	213	1	100	29	314	85	69	0	0	154	0	0	0	0	0	0	153	3	2	156	31	624	655
Grand Total	498	4	221	88	723	219	264	0	0	483	0	0	0	0	0	0	674	11	5	685	93	1891	1984
Apprch %	68.9	0.6	30.6			45.3	54.7	0			0	0	0			0	98.4	1.6					
Total %	26.3	0.2	11.7		38.2	11.6	14	0		25.5	0	0	0		0	0	35.6	0.6		36.2	4.7	95.3	
Passenger Vehicles	388	4	189		661	162	254	0		416	0	0	0		0	0	629	9		643	0	0	1720
% Passenger Vehicles	77.9	100	85.5	90.9	81.5	74	96.2	0	0	86.1	0	0	0	0	0	0	93.3	81.8	100	93.2	0	0	86.7
Large 2 Axle Vehicles	45	0	9		58	22	9	0		31	0	0	0		0	0	21	1		22	0	0	111
% Large 2 Axle Vehicles	9	0	4.1	4.5	7.2	10	3.4	0	0	6.4	0	0	0	0	0	0	3.1	9.1	0	3.2	0	0	5.6
3 Axle Vehicles	12	0	3		15	11	0	0		11	0	0	0		0	0	3	1		4	0	0	30
% 3 Axle Vehicles	2.4	0	1.4	0	1.8	5	0	0	0	2.3	0	0	0	0	0	0	0.4	9.1	0	0.6	0	0	1.5
4+ Axle Trucks	53	0	20		77	24	1	0		25	0	0	0		0	0	21	0		21	0	0	123
% 4+ Axle Trucks	10.6	0	9	4.5	9.5	11	0.4	0	0	5.2	0	0	0	0	0	0	3.1	0	0	3	0	0	6.2

3.1-1

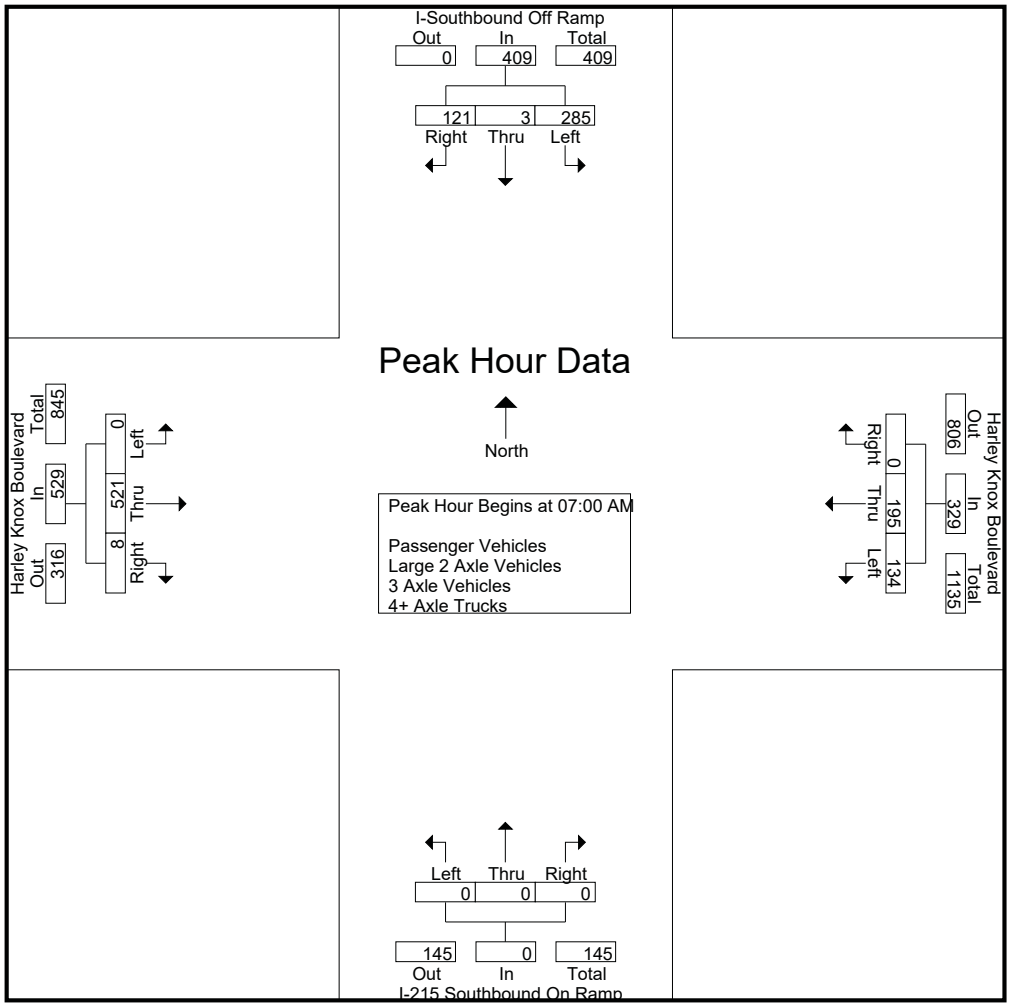
	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	56	0	28	84	33	**100**	0	**133**	0	0	0	0	0	130	0	130	**347**
07:15 AM	63	0	31	94	26	45	0	71	0	0	0	0	0	133	2	135	300
07:30 AM	77	**3**	**36**	**116**	**43**	25	0	68	0	0	0	0	0	**149**	2	**151**	335
07:45 AM	**89**	0	26	115	32	25	0	57	0	0	0	0	0	109	**4**	113	285
Total Volume	285	3	121	409	134	195	0	329	0	0	0	0	0	521	8	529	1267
% App. Total	69.7	0.7	29.6		40.7	59.3	0		0	0	0		0	98.5	1.5		
PHF	.801	.250	.840	.881	.779	.488	.000	.618	.000	.000	.000	.000	.000	.874	.500	.876	.913

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



3.1-2

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	63	0	31	94	33	**100**	0	**133**	0	0	0	0	0	130	0	130	
+15 mins.	77	**3**	**36**	**116**	26	45	0	71	0	0	0	0	0	133	2	135	
+30 mins.	**89**	0	26	115	**43**	25	0	68	0	0	0	0	0	**149**	2	**151**	
+45 mins.	75	0	24	99	32	25	0	57	0	0	0	0	0	109	**4**	113	
Total Volume	304	3	117	424	134	195	0	329	0	0	0	0	0	521	8	529	
% App. Total	71.7	0.7	27.6		40.7	59.3	0		0	0	0		0	98.5	1.5		
PHF	.854	.250	.813	.914	.779	.488	.000	.618	.000	.000	.000	.000	.000	.874	.500	.876	

Counts Unlimited
PO Box 1178
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(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles

	I-Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	43	0	26	8	69	26	98	0	0	124	0	0	0	0	0	0	128	0	0	128	8	321	329
07:15 AM	48	0	27	15	75	21	44	0	0	65	0	0	0	0	0	0	122	2	2	124	17	264	281
07:30 AM	63	3	32	21	98	35	25	0	0	60	0	0	0	0	0	0	143	2	1	145	22	303	325
07:45 AM	76	0	24	10	100	26	25	0	0	51	0	0	0	0	0	0	101	2	0	103	10	254	264
Total	230	3	109	54	342	108	192	0	0	300	0	0	0	0	0	0	494	6	3	500	57	1142	1199
08:00 AM	60	0	19	4	79	18	20	0	0	38	0	0	0	0	0	0	41	0	0	41	4	158	162
08:15 AM	28	0	21	7	49	12	17	0	0	29	0	0	0	0	0	0	36	2	2	38	9	116	125
08:30 AM	34	1	13	5	48	8	12	0	0	20	0	0	0	0	0	0	33	1	0	34	5	102	107
08:45 AM	36	0	27	10	63	16	13	0	0	29	0	0	0	0	0	0	25	0	0	25	10	117	127
Total	158	1	80	26	239	54	62	0	0	116	0	0	0	0	0	0	135	3	2	138	28	493	521
Grand Total	388	4	189	80	581	162	254	0	0	416	0	0	0	0	0	0	629	9	5	638	85	1635	1720
Apprch %	66.8	0.7	32.5			38.9	61.1	0			0	0	0			0	98.6	1.4					
Total %	23.7	0.2	11.6		35.5	9.9	15.5	0		25.4	0	0	0		0	0	38.5	0.6		39	4.9	95.1	

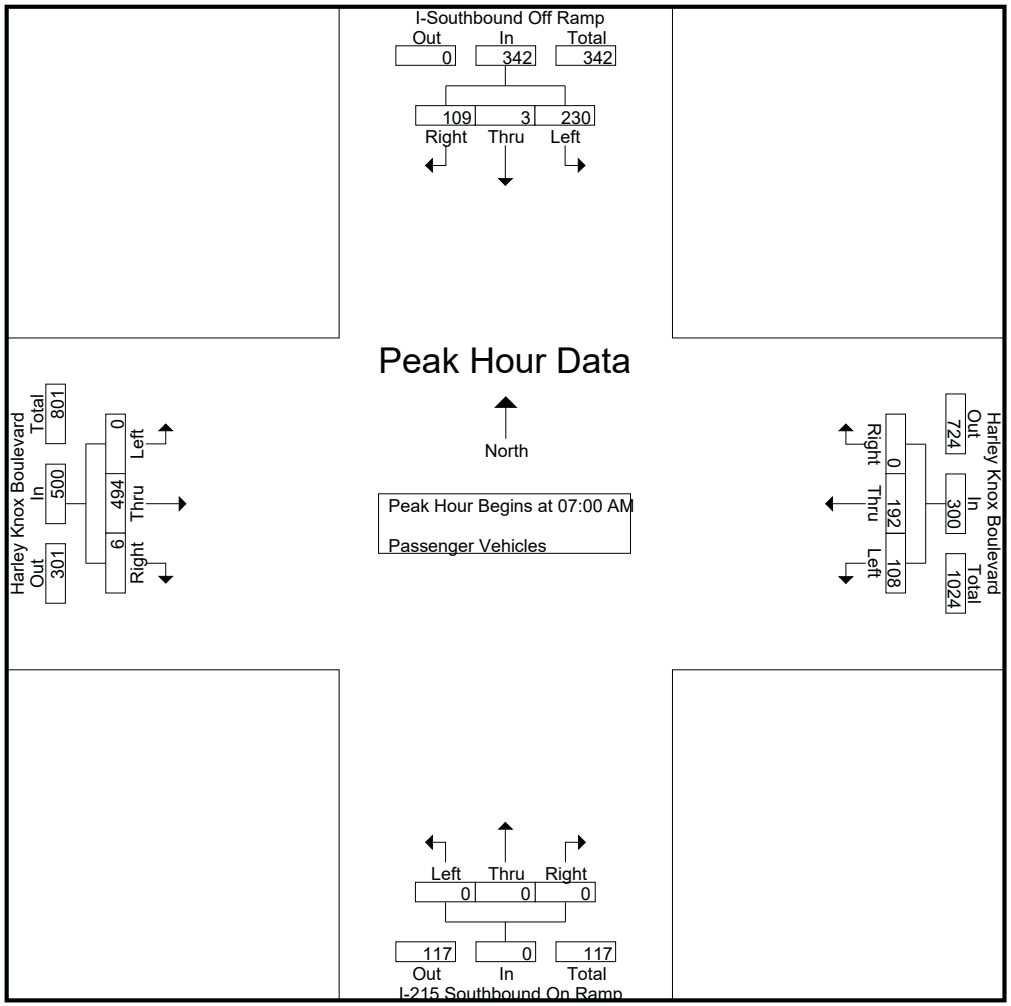
3.1-4

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	43	0	26	69	26	**98**	0	**124**	0	0	0	0	0	128	0	128	**321**
07:15 AM	48	0	27	75	21	44	0	65	0	0	0	0	0	122	**2**	124	264
07:30 AM	63	**3**	**32**	98	**35**	25	0	60	0	0	0	0	0	**143**	2	**145**	303
07:45 AM	**76**	0	24	**100**	26	25	0	51	0	0	0	0	0	101	2	103	254
Total Volume	230	3	109	342	108	192	0	300	0	0	0	0	0	494	6	500	1142
% App. Total	67.3	0.9	31.9		36	64	0		0	0	0		0	98.8	1.2		
PHF	.757	.250	.852	.855	.771	.490	.000	.605	.000	.000	.000	.000	.000	.864	.750	.862	.889

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	43	0	26	69	26	**98**	0	**124**	0	0	0	0	0	128	0	128	
+15 mins.	48	0	27	75	21	44	0	65	0	0	0	0	0	122	**2**	124	
+30 mins.	63	**3**	**32**	98	**35**	25	0	60	0	0	0	0	0	**143**	2	**145**	
+45 mins.	**76**	0	24	**100**	26	25	0	51	0	0	0	0	0	101	2	103	
Total Volume	230	3	109	342	108	192	0	300	0	0	0	0	0	494	6	500	
% App. Total	67.3	0.9	31.9		36	64	0		0	0	0		0	98.8	1.2		
PHF	.757	.250	.852	.855	.771	.490	.000	.605	.000	.000	.000	.000	.000	.864	.750	.862	

Packet Pg. 1551

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	I-Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	4	0	0	0	4	3	2	0	0	5	0	0	0	0	0	0	2	0	0	2	0	11	11
07:15 AM	6	0	0	0	6	2	1	0	0	3	0	0	0	0	0	0	4	0	0	4	0	13	13
07:30 AM	6	0	2	2	8	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	2	10	12
07:45 AM	6	0	0	0	6	3	0	0	0	3	0	0	0	0	0	0	4	1	0	5	0	14	14
Total	22	0	2	2	24	9	3	0	0	12	0	0	0	0	0	0	11	1	0	12	2	48	50
08:00 AM	7	0	1	0	8	3	2	0	0	5	0	0	0	0	0	0	4	0	0	4	0	17	17
08:15 AM	7	0	0	0	7	3	1	0	0	4	0	0	0	0	0	0	1	0	0	1	0	12	12
08:30 AM	6	0	3	2	9	5	2	0	0	7	0	0	0	0	0	0	5	0	0	5	2	21	23
08:45 AM	3	0	3	0	6	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	9	9
Total	23	0	7	2	30	13	6	0	0	19	0	0	0	0	0	0	10	0	0	10	2	59	61
Grand Total	45	0	9	4	54	22	9	0	0	31	0	0	0	0	0	0	21	1	0	22	4	107	111
Apprch %	83.3	0	16.7			71	29	0			0	0	0			0	95.5	4.5					
Total %	42.1	0	8.4		50.5	20.6	8.4	0		29	0	0	0		0	0	19.6	0.9		20.6	3.6	96.4	

3.1-7

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	4	0	0	4	**3**	**2**	0	**5**	0	0	0	0	0	2	0	2	11
07:15 AM	**6**	0	0	6	2	1	0	3	0	0	0	0	0	**4**	0	4	13
07:30 AM	6	0	**2**	**8**	1	0	0	1	0	0	0	0	0	1	0	1	10
07:45 AM	6	0	0	6	3	0	0	3	0	0	0	0	0	4	**1**	**5**	**14**
Total Volume	22	0	2	24	9	3	0	12	0	0	0	0	0	11	1	12	48
% App. Total	91.7	0	8.3		75	25	0		0	0	0		0	91.7	8.3		
PHF	.917	.000	.250	.750	.750	.375	.000	.600	.000	.000	.000	.000	.000	.688	.250	.600	.857

Packet Pg. 1552

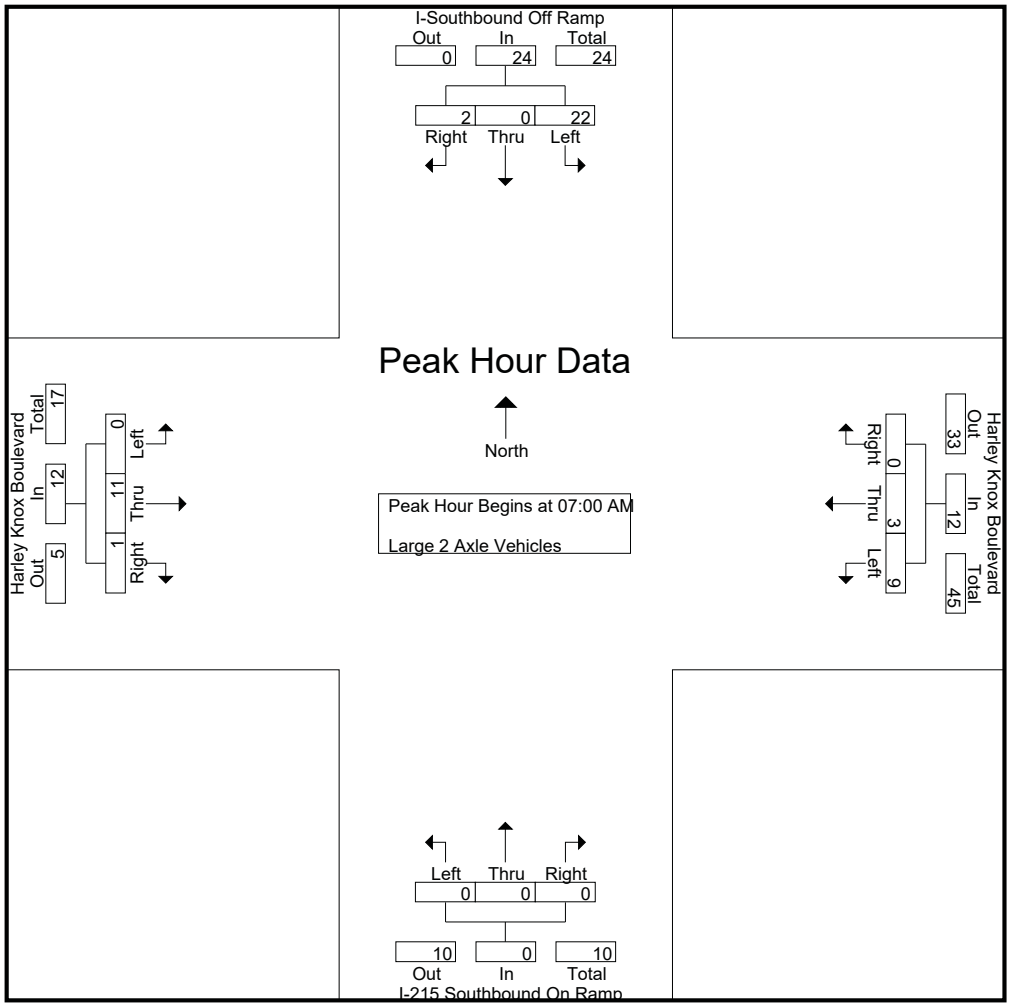
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1553

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	4	0	0	4	**3**	**2**	0	**5**	0	0	0	0	0	2	0	2	
+15 mins.	**6**	0	0	6	2	1	0	3	0	0	0	0	0	**4**	0	4	
+30 mins.	6	0	**2**	**8**	1	0	0	1	0	0	0	0	0	1	0	1	
+45 mins.	6	0	0	6	3	0	0	3	0	0	0	0	0	4	**1**	**5**	
Total Volume	22	0	2	24	9	3	0	12	0	0	0	0	0	11	1	12	
% App. Total	91.7	0	8.3		75	25	0		0	0	0		0	91.7	8.3		
PHF	.917	.000	.250	.750	.750	.375	.000	.600	.000	.000	.000	.000	.000	.688	.250	.600	

Packet Pg. 1554

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	I-Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	0	1	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	3
07:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
07:30 AM	3	0	1	0	4	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	6	6
07:45 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	1	0	2	0	4	4
Total	5	0	2	0	7	4	0	0	0	4	0	0	0	0	0	0	3	1	0	4	0	15	15
08:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15 AM	2	0	1	0	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	4
08:30 AM	4	0	0	0	4	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	9	9
08:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	7	0	1	0	8	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	15	15
Grand Total	12	0	3	0	15	11	0	0	0	11	0	0	0	0	0	0	3	1	0	4	0	30	30
Apprch %	80	0	20			100	0	0			0	0	0			0	75	25					
Total %	40	0	10		50	36.7	0	0		36.7	0	0	0		0	0	10	3.3		13.3	0	100	

3.1-10

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	0	**1**	2	**1**	0	0	**1**	0	0	0	0	0	0	0	0	3
07:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	**1**	0	1	2
07:30 AM	**3**	0	1	**4**	1	0	0	1	0	0	0	0	0	1	0	1	**6**
07:45 AM	1	0	0	1	1	0	0	1	0	0	0	0	0	1	**1**	**2**	4
Total Volume	5	0	2	7	4	0	0	4	0	0	0	0	0	3	1	4	15
% App. Total	71.4	0	28.6		100	0	0		0	0	0		0	75	25		
PHF	.417	.000	.500	.438	1.00	.000	.000	1.00	.000	.000	.000	.000	.000	.750	.250	.500	.625

Packet Pg. 1555

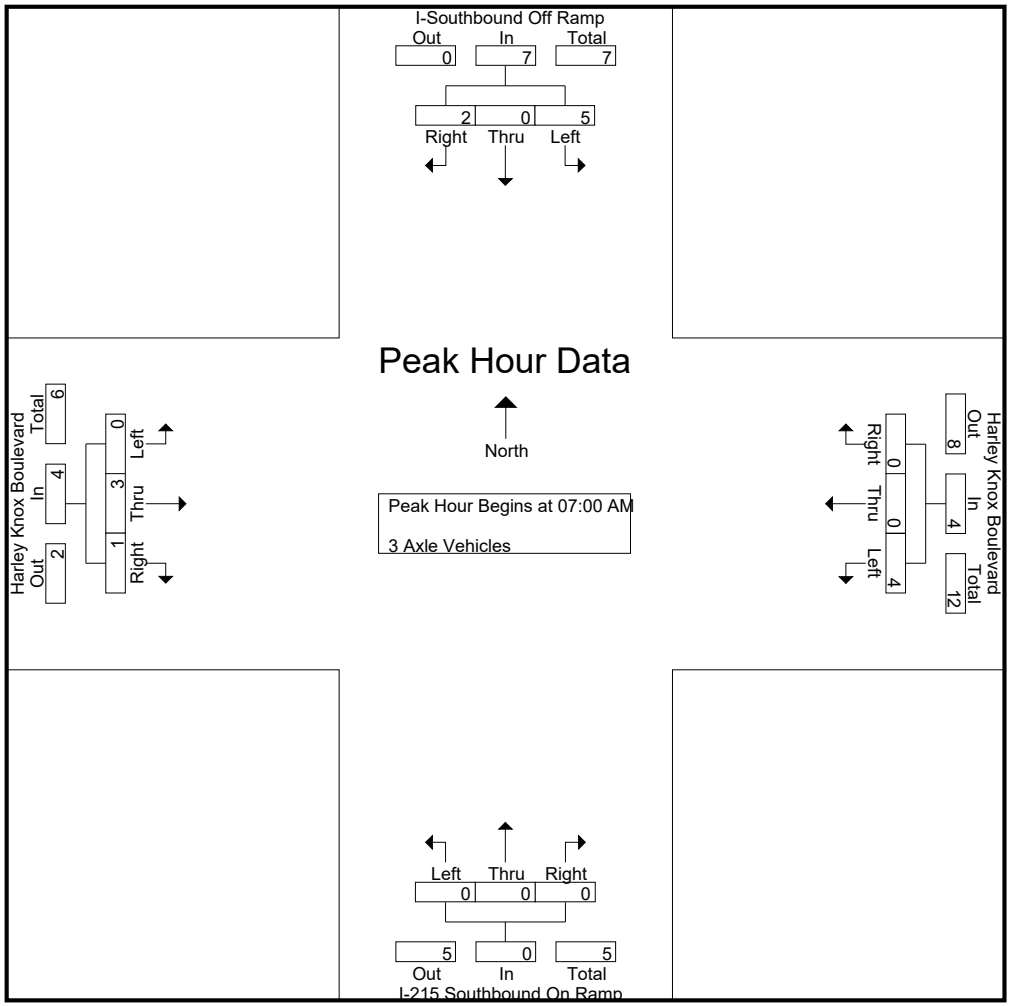
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	1	0	**1**	2	**1**	0	0	**1**	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	**1**	0	1	
+30 mins.	**3**	0	1	**4**	1	0	0	1	0	0	0	0	0	1	0	1	
+45 mins.	1	0	0	1	1	0	0	1	0	0	0	0	0	1	**1**	**2**	
Total Volume	5	0	2	7	4	0	0	4	0	0	0	0	0	3	1	4	
% App. Total	71.4	0	28.6		100	0	0		0	0	0		0	75	25		
PHF	.417	.000	.500	.438	1.000	.000	.000	1.000	.000	.000	.000	.000	.000	.750	.250	.500	

Packet Pg. 1557

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	I-Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	8	0	1	0	9	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	12	12
07:15 AM	9	0	4	1	13	2	0	0	0	2	0	0	0	0	0	0	6	0	0	6	1	21	22
07:30 AM	5	0	1	1	6	6	0	0	0	6	0	0	0	0	0	0	4	0	0	4	1	16	17
07:45 AM	6	0	2	1	8	2	0	0	0	2	0	0	0	0	0	0	3	0	0	3	1	13	14
Total	28	0	8	3	36	13	0	0	0	13	0	0	0	0	0	0	13	0	0	13	3	62	65
08:00 AM	8	0	4	0	12	5	0	0	0	5	0	0	0	0	0	0	2	0	0	2	0	19	19
08:15 AM	3	0	2	1	5	3	0	0	0	3	0	0	0	0	0	0	2	0	0	2	1	10	11
08:30 AM	4	0	3	0	7	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	9	9
08:45 AM	10	0	3	0	13	2	1	0	0	3	0	0	0	0	0	0	3	0	0	3	0	19	19
Total	25	0	12	1	37	11	1	0	0	12	0	0	0	0	0	0	8	0	0	8	1	57	58
Grand Total	53	0	20	4	73	24	1	0	0	25	0	0	0	0	0	0	21	0	0	21	4	119	123
Apprch %	72.6	0	27.4			96	4	0			0	0	0			0	100	0					
Total %	44.5	0	16.8		61.3	20.2	0.8	0		21	0	0	0		0	0	17.6	0		17.6	3.3	96.7	

3.1-13

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	8	0	1	9	3	0	0	3	0	0	0	0	0	0	0	0	12
07:15 AM	**9**	0	**4**	**13**	2	0	0	2	0	0	0	0	0	**6**	0	**6**	**21**
07:30 AM	5	0	1	6	**6**	0	0	**6**	0	0	0	0	0	4	0	4	16
07:45 AM	6	0	2	8	2	0	0	2	0	0	0	0	0	3	0	3	13
Total Volume	28	0	8	36	13	0	0	13	0	0	0	0	0	13	0	13	62
% App. Total	77.8	0	22.2		100	0	0		0	0	0		0	100	0		
PHF	.778	.000	.500	.692	.542	.000	.000	.542	.000	.000	.000	.000	.000	.542	.000	.542	.738

Packet Pg. 1558

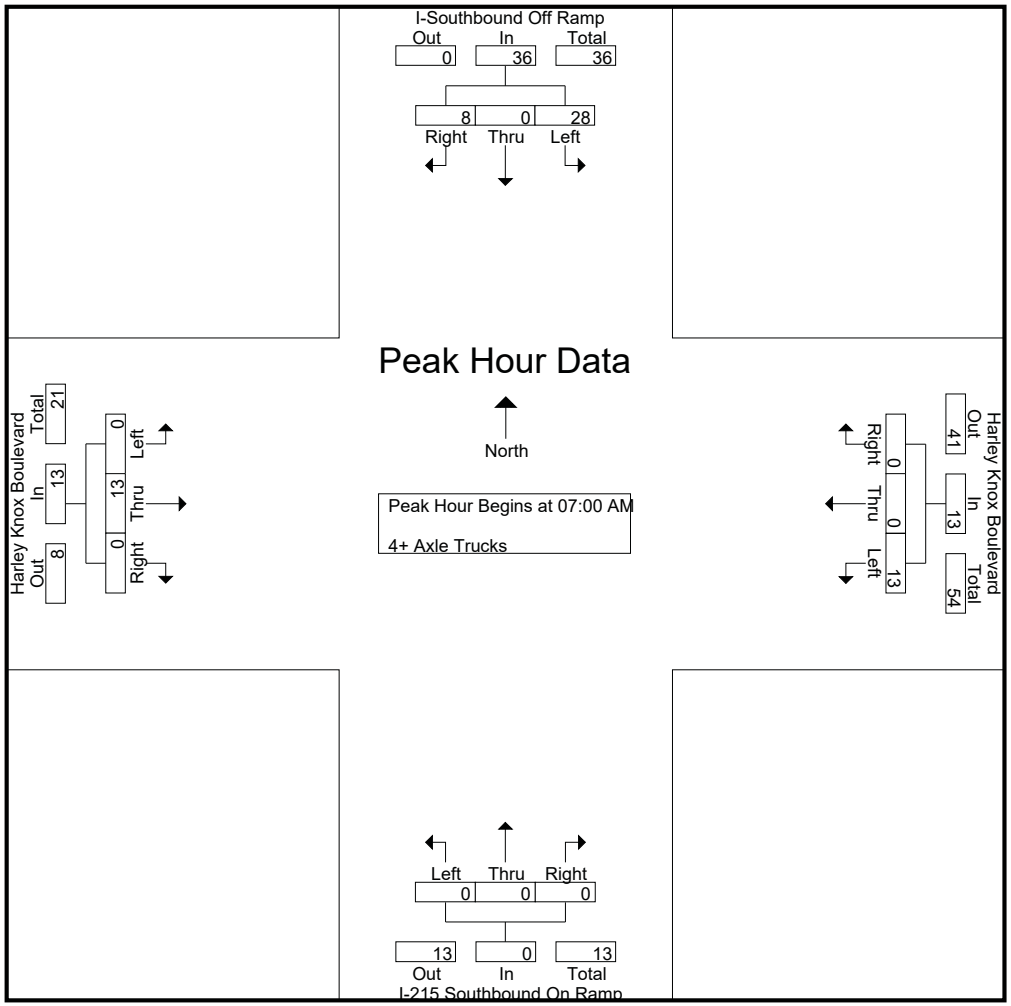
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1559

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	8	0	1	9	3	0	0	3	0	0	0	0	0	0	0	0	
+15 mins.	**9**	0	**4**	**13**	2	0	0	2	0	0	0	0	0	**6**	0	**6**	
+30 mins.	5	0	1	6	**6**	0	0	**6**	0	0	0	0	0	4	0	4	
+45 mins.	6	0	2	8	2	0	0	2	0	0	0	0	0	3	0	3	
Total Volume	28	0	8	36	13	0	0	13	0	0	0	0	0	13	0	13	
% App. Total	77.8	0	22.2		100	0	0		0	0	0		0	100	0		
PHF	.778	.000	.500	.692	.542	.000	.000	.542	.000	.000	.000	.000	.000	.542	.000	.542	

Packet Pg. 1560

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	I-Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	64	2	38	13	104	33	26	0	0	59	0	0	0	0	0	0	80	4	1	84	14	247	261
04:15 PM	68	0	47	15	115	21	30	0	0	51	0	0	0	0	0	0	88	4	0	92	15	258	273
04:30 PM	86	0	33	12	119	52	27	0	0	79	0	0	0	0	0	0	105	17	6	122	18	320	338
04:45 PM	76	1	46	24	123	63	30	0	0	93	0	0	0	0	0	0	79	8	2	87	26	303	329
Total	294	3	164	64	461	169	113	0	0	282	0	0	0	0	0	0	352	33	9	385	73	1128	1201
05:00 PM	57	0	40	17	97	39	25	0	0	64	0	0	0	0	0	0	74	4	1	78	18	239	257
05:15 PM	61	0	50	15	111	30	21	0	0	51	0	0	0	0	0	0	49	2	0	51	15	213	228
05:30 PM	98	0	51	21	149	39	29	0	0	68	0	0	0	0	0	0	57	3	2	60	23	277	300
05:45 PM	76	0	47	20	123	40	30	0	0	70	0	0	0	0	0	0	70	1	0	71	20	264	284
Total	292	0	188	73	480	148	105	0	0	253	0	0	0	0	0	0	250	10	3	260	76	993	1069
Grand Total	586	3	352	137	941	317	218	0	0	535	0	0	0	0	0	0	602	43	12	645	149	2121	2270
Apprch %	62.3	0.3	37.4			59.3	40.7	0			0	0	0			0	93.3	6.7					
Total %	27.6	0.1	16.6		44.4	14.9	10.3	0		25.2	0	0	0		0	0	28.4	2		30.4	6.6	93.4	
Passenger Vehicles	501	3	328		963	301	204	0		505	0	0	0		0	0	566	42		619	0	0	2087
% Passenger Vehicles	85.5	100	93.2	95.6	89.3	95	93.6	0	0	94.4	0	0	0	0	0	0	94	97.7	91.7	94.2	0	0	91.9
Large 2 Axle Vehicles	26	0	10		39	6	2	0		8	0	0	0		0	0	12	1		14	0	0	61
% Large 2 Axle Vehicles	4.4	0	2.8	2.2	3.6	1.9	0.9	0	0	1.5	0	0	0	0	0	0	2	2.3	8.3	2.1	0	0	2.7
3 Axle Vehicles	19	0	3		23	0	1	0		1	0	0	0		0	0	5	0		5	0	0	29
% 3 Axle Vehicles	3.2	0	0.9	0.7	2.1	0	0.5	0	0	0.2	0	0	0	0	0	0	0.8	0	0	0.8	0	0	1.3
4+ Axle Trucks	40	0	11		53	10	11	0		21	0	0	0		0	0	19	0		19	0	0	93
% 4+ Axle Trucks	6.8	0	3.1	1.5	4.9	3.2	5	0	0	3.9	0	0	0	0	0	0	3.2	0	0	2.9	0	0	4.1

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	64	**2**	38	104	33	26	0	59	0	0	0	0	0	80	4	84	247
04:15 PM	68	0	**47**	115	21	**30**	0	51	0	0	0	0	0	88	4	92	258
04:30 PM	**86**	0	33	119	52	27	0	79	0	0	0	0	0	**105**	**17**	**122**	**320**
04:45 PM	76	1	46	**123**	**63**	30	0	**93**	0	0	0	0	0	79	8	87	303
Total Volume	294	3	164	461	169	113	0	282	0	0	0	0	0	352	33	385	1128
% App. Total	63.8	0.7	35.6		59.9	40.1	0		0	0	0		0	91.4	8.6		
PHF	.855	.375	.872	.937	.671	.942	.000	.758	.000	.000	.000	.000	.000	.838	.485	.789	.881

Packet Pg. 1561

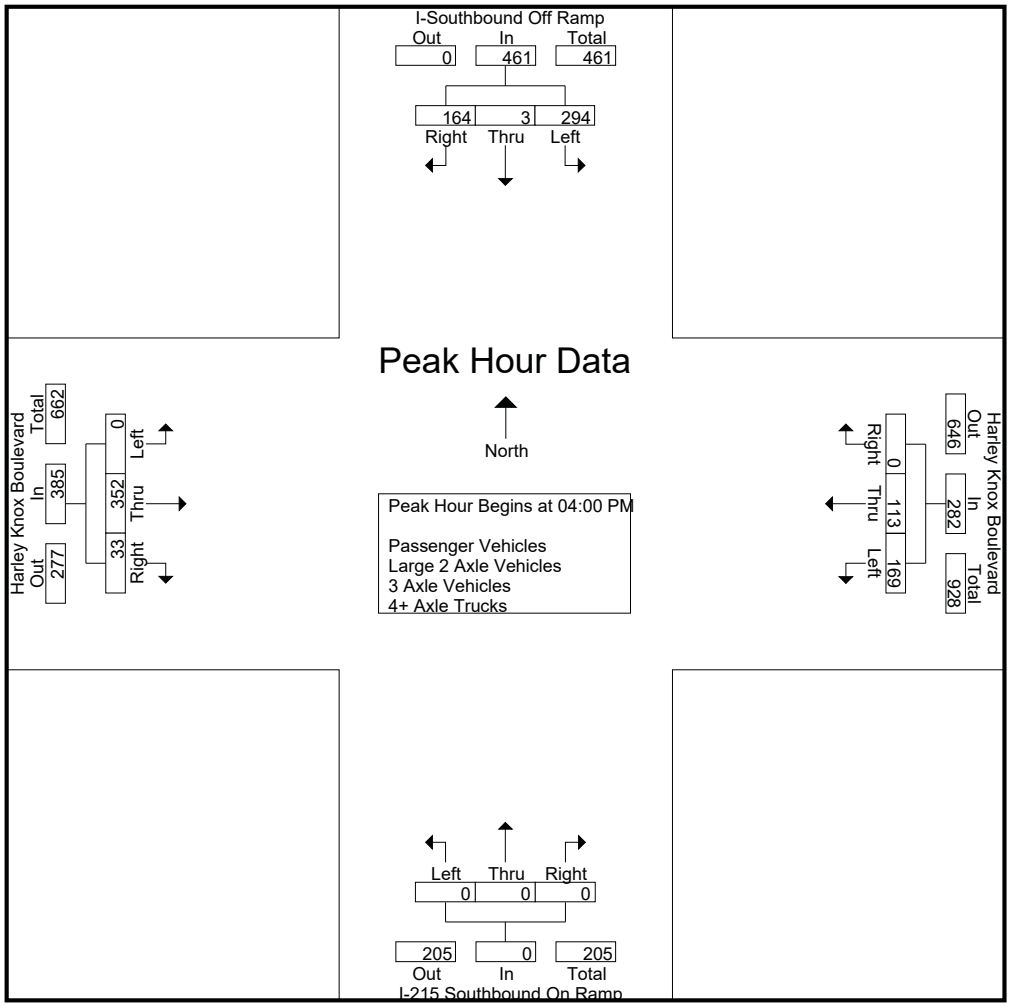
E.2.p

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1562

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:15 PM				04:00 PM				04:00 PM				
+0 mins.	76	**1**	46	123	21	**30**	0	51	0	0	0	0	0	80	4	84	
+15 mins.	57	0	40	97	52	27	0	79	0	0	0	0	0	88	4	92	
+30 mins.	61	0	50	111	**63**	30	0	**93**	0	0	0	0	0	**105**	**17**	**122**	
+45 mins.	**98**	0	**51**	**149**	39	25	0	64	0	0	0	0	0	79	8	87	
Total Volume	292	1	187	480	175	112	0	287	0	0	0	0	0	352	33	385	
% App. Total	60.8	0.2	39		61	39	0		0	0	0		0	91.4	8.6		
PHF	.745	.250	.917	.805	.694	.933	.000	.772	.000	.000	.000	.000	.000	.838	.485	.789	

Packet Pg. 1563

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles

	I-Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	54	2	33	12	89	30	25	0	0	55	0	0	0	0	0	0	70	4	1	74	13	218	231
04:15 PM	58	0	45	14	103	19	28	0	0	47	0	0	0	0	0	0	81	4	0	85	14	235	249
04:30 PM	68	0	27	11	95	47	23	0	0	70	0	0	0	0	0	0	103	17	6	120	17	285	302
04:45 PM	61	1	45	24	107	61	29	0	0	90	0	0	0	0	0	0	78	8	2	86	26	283	309
Total	241	3	150	61	394	157	105	0	0	262	0	0	0	0	0	0	332	33	9	365	70	1021	1091
05:00 PM	47	0	38	17	85	39	21	0	0	60	0	0	0	0	0	0	71	4	1	75	18	220	238
05:15 PM	53	0	46	13	99	29	21	0	0	50	0	0	0	0	0	0	46	2	0	48	13	197	210
05:30 PM	89	0	50	21	139	37	29	0	0	66	0	0	0	0	0	0	51	2	1	53	22	258	280
05:45 PM	71	0	44	19	115	39	28	0	0	67	0	0	0	0	0	0	66	1	0	67	19	249	268
Total	260	0	178	70	438	144	99	0	0	243	0	0	0	0	0	0	234	9	2	243	72	924	996
Grand Total	501	3	328	131	832	301	204	0	0	505	0	0	0	0	0	0	566	42	11	608	142	1945	2087
Apprch %	60.2	0.4	39.4			59.6	40.4	0			0	0	0			0	93.1	6.9					
Total %	25.8	0.2	16.9		42.8	15.5	10.5	0		26	0	0	0		0	0	29.1	2.2		31.3	6.8	93.2	

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	54	**2**	33	89	30	25	0	55	0	0	0	0	0	70	4	74	218
04:15 PM	58	0	**45**	103	19	28	0	47	0	0	0	0	0	81	4	85	235
04:30 PM	**68**	0	27	95	47	23	0	70	0	0	0	0	0	**103**	**17**	**120**	**285**
04:45 PM	61	1	45	**107**	**61**	**29**	0	**90**	0	0	0	0	0	78	8	86	283
Total Volume	241	3	150	394	157	105	0	262	0	0	0	0	0	332	33	365	1021
% App. Total	61.2	0.8	38.1		59.9	40.1	0		0	0	0		0	91	9		
PHF	.886	.375	.833	.921	.643	.905	.000	.728	.000	.000	.000	.000	.000	.806	.485	.760	.896

Packet Pg. 1564

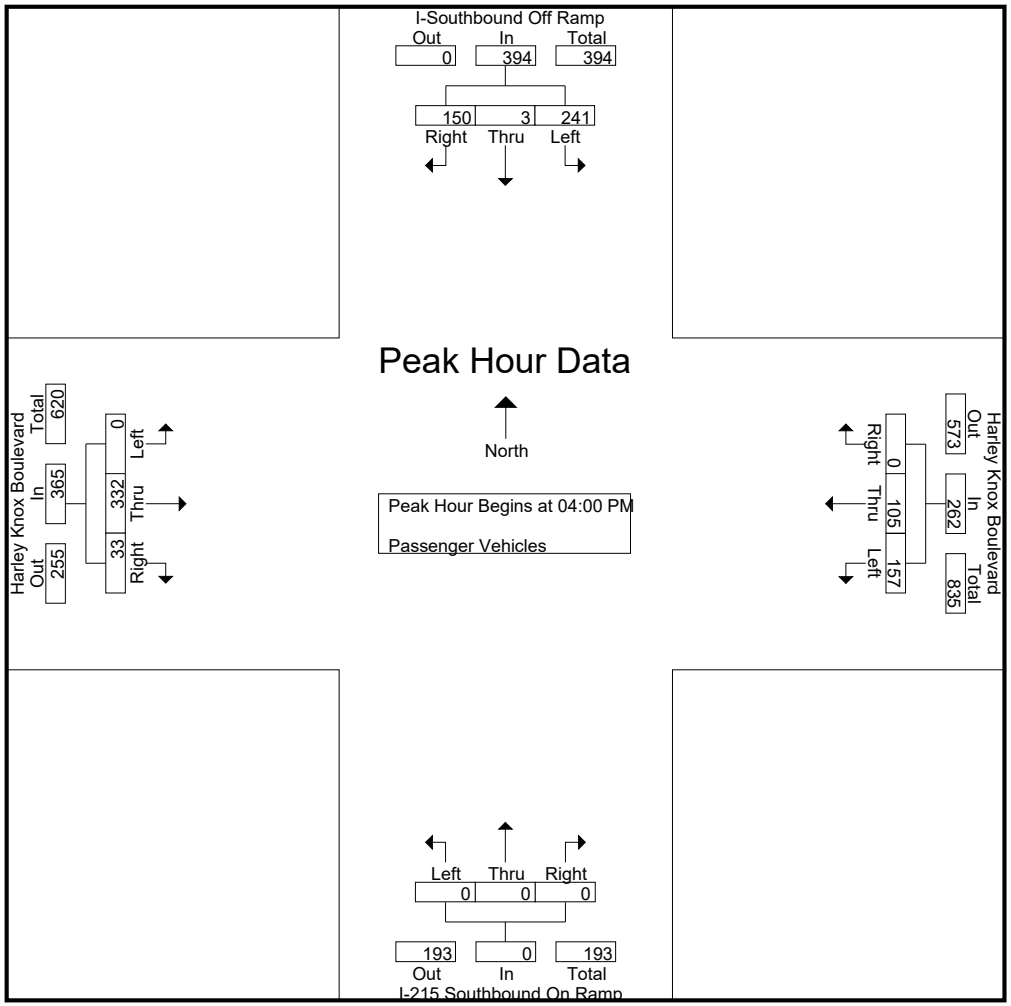
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:00 PM				04:00 PM				
+0 mins.	54	**2**	33	89	30	25	0	55	0	0	0	0	0	70	4	74	
+15 mins.	58	0	**45**	103	19	28	0	47	0	0	0	0	0	81	4	85	
+30 mins.	**68**	0	27	95	47	23	0	70	0	0	0	0	0	**103**	**17**	**120**	
+45 mins.	61	1	45	**107**	**61**	**29**	0	**90**	0	0	0	0	0	78	8	86	
Total Volume	241	3	150	394	157	105	0	262	0	0	0	0	0	332	33	365	
% App. Total	61.2	0.8	38.1		59.9	40.1	0		0	0	0		0	91	9		
PHF	.886	.375	.833	.921	.643	.905	.000	.728	.000	.000	.000	.000	.000	.806	.485	.760	

Packet Pg. 1566

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	I-Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	5	0	2	0	7	1	0	0	0	1	0	0	0	0	0	0	3	0	0	3	0	11	11
04:15 PM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	6	6
04:30 PM	2	0	3	0	5	4	1	0	0	5	0	0	0	0	0	0	1	0	0	1	0	11	11
04:45 PM	5	0	0	0	5	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	6	6
Total	15	0	5	0	20	6	1	0	0	7	0	0	0	0	0	0	7	0	0	7	0	34	34
05:00 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	3
05:15 PM	2	0	3	2	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	6	8
05:30 PM	3	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	2	1	1	3	1	7	8
05:45 PM	4	0	1	1	5	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	1	7	8
Total	11	0	5	3	16	0	1	0	0	1	0	0	0	0	0	0	5	1	1	6	4	23	27
Grand Total	26	0	10	3	36	6	2	0	0	8	0	0	0	0	0	0	12	1	1	13	4	57	61
Apprch %	72.2	0	27.8			75	25	0			0	0	0			0	92.3	7.7					
Total %	45.6	0	17.5		63.2	10.5	3.5	0		14	0	0	0		0	0	21.1	1.8		22.8	6.6	93.4	

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**5**	0	2	**7**	1	0	0	1	0	0	0	0	0	**3**	0	**3**	**11**
04:15 PM	3	0	0	3	0	0	0	0	0	0	0	0	0	3	0	3	6
04:30 PM	2	0	**3**	5	**4**	**1**	0	**5**	0	0	0	0	0	1	0	1	11
04:45 PM	5	0	0	5	1	0	0	1	0	0	0	0	0	0	0	0	6
Total Volume	15	0	5	20	6	1	0	7	0	0	0	0	0	7	0	7	34
% App. Total	75	0	25		85.7	14.3	0		0	0	0		0	100	0		
PHF	.750	.000	.417	.714	.375	.250	.000	.350	.000	.000	.000	.000	.000	.583	.000	.583	.773

Packet Pg. 1567

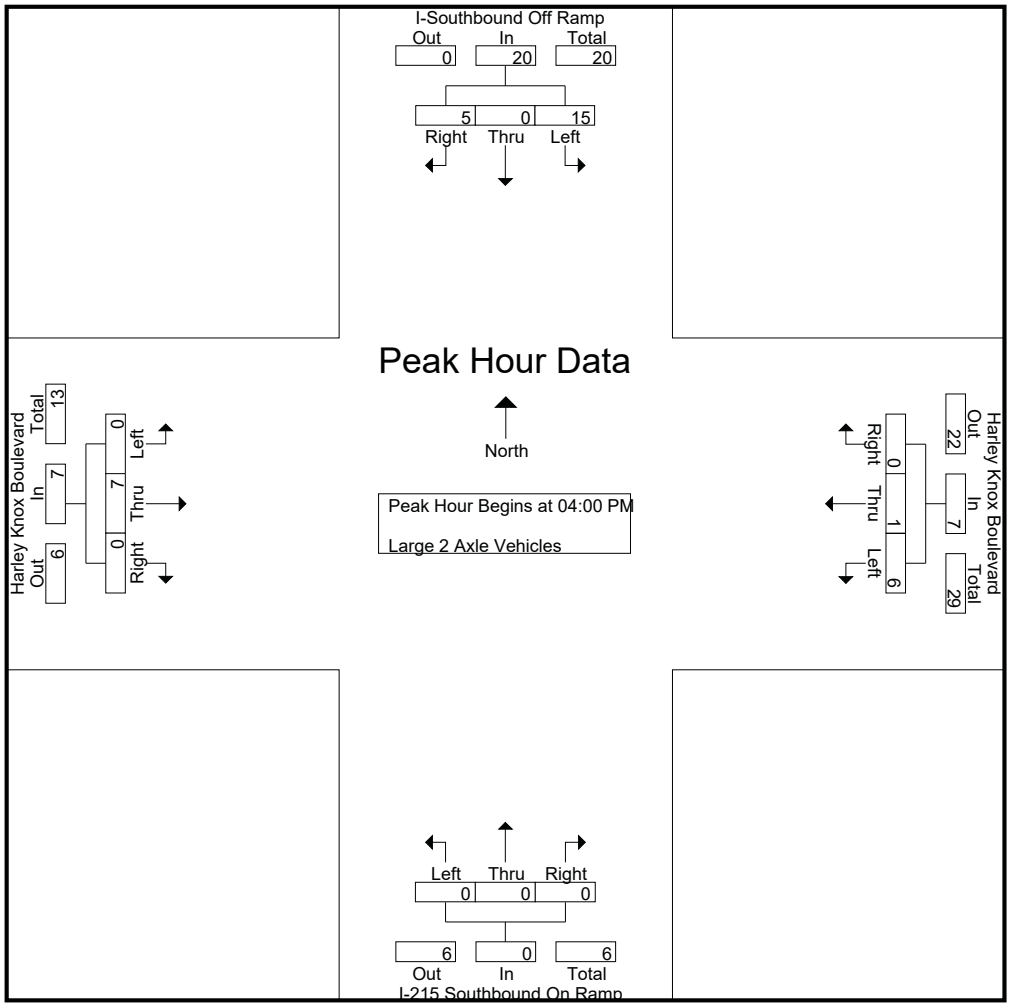
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:00 PM				04:00 PM				
+0 mins.	**5**	0	2	**7**	1	0	0	1	0	0	0	0	0	**3**	0	**3**	
+15 mins.	3	0	0	3	0	0	0	0	0	0	0	0	0	3	0	3	
+30 mins.	2	0	**3**	5	**4**	**1**	0	**5**	0	0	0	0	0	1	0	1	
+45 mins.	5	0	0	5	1	0	0	1	0	0	0	0	0	0	0	0	
Total Volume	15	0	5	20	6	1	0	7	0	0	0	0	0	7	0	7	
% App. Total	75	0	25		85.7	14.3	0		0	0	0		0	100	0		
PHF	.750	.000	.417	.714	.375	.250	.000	.350	.000	.000	.000	.000	.000	.583	.000	.583	

Packet Pg. 1569

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	I-Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
04:15 PM	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	1	3	4
04:30 PM	4	0	2	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
04:45 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	9	0	3	1	12	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	1	14	15
05:00 PM	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	7	7
05:15 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:30 PM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	4	4
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
Total	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	14	14
Grand Total	19	0	3	1	22	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	1	28	29
Apprch %	86.4	0	13.6			0	100	0			0	0	0			0	100	0					
Total %	67.9	0	10.7		78.6	0	3.6	0		3.6	0	0	0		0	0	17.9	0		17.9	3.4	96.6	

3.1-25

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
04:15 PM	0	0	1	1	0	**1**	0	**1**	0	0	0	0	0	**1**	0	**1**	3
04:30 PM	**4**	0	**2**	**6**	0	0	0	0	0	0	0	0	0	0	0	0	**6**
04:45 PM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	9	0	3	12	0	1	0	1	0	0	0	0	0	1	0	1	14
% App. Total	75	0	25		0	100	0		0	0	0		0	100	0		
PHF	.563	.000	.375	.500	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.583

Packet Pg. 1570

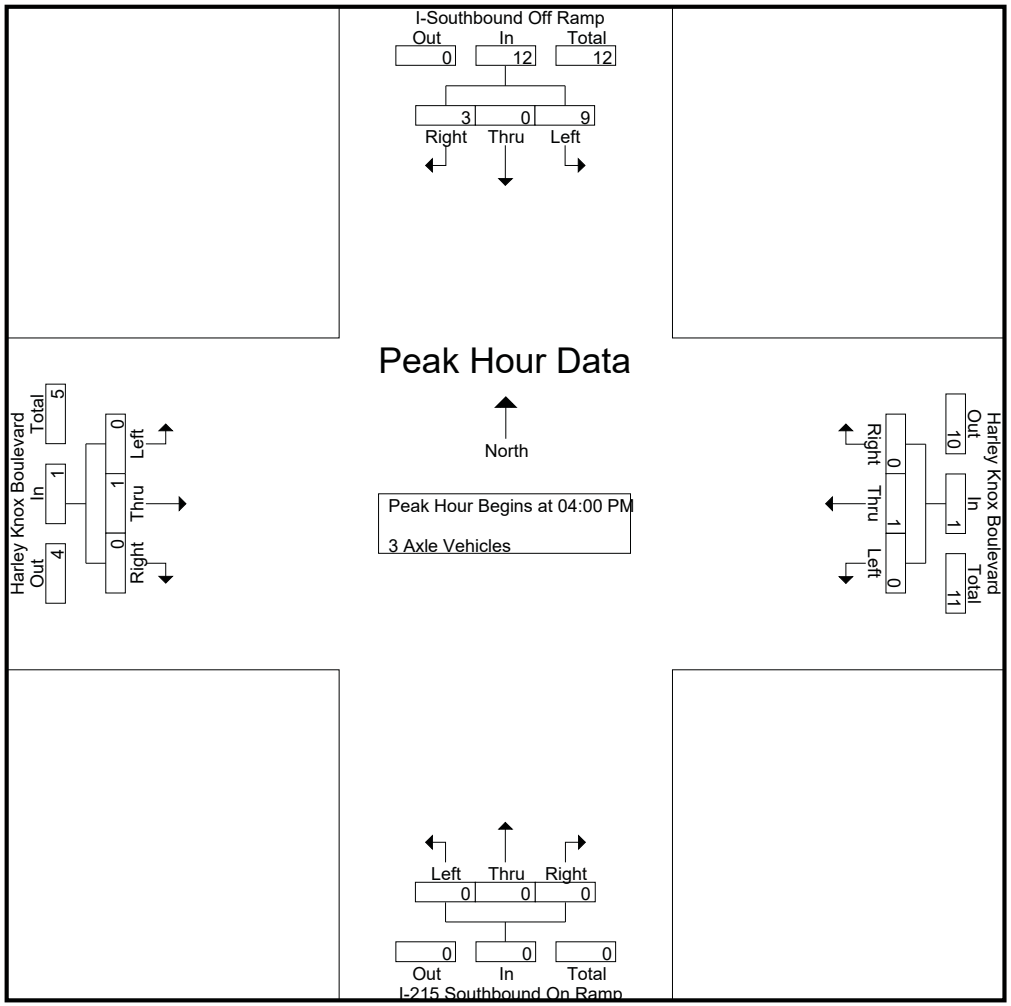
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1571

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:00 PM				04:00 PM				
+0 mins.	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	1	1	0	**1**	0	**1**	0	0	0	0	0	**1**	0	**1**	
+30 mins.	**4**	0	**2**	**6**	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	9	0	3	12	0	1	0	1	0	0	0	0	0	1	0	1	
% App. Total	75	0	25		0	100	0		0	0	0		0	100	0		
PHF	.563	.000	.375	.500	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	

Packet Pg. 1572

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	I-Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	2	0	3	1	5	2	1	0	0	3	0	0	0	0	0	0	7	0	0	7	1	15	16
04:15 PM	7	0	1	0	8	2	1	0	0	3	0	0	0	0	0	0	3	0	0	3	0	14	14
04:30 PM	12	0	1	1	13	1	3	0	0	4	0	0	0	0	0	0	1	0	0	1	1	18	19
04:45 PM	8	0	1	0	9	1	1	0	0	2	0	0	0	0	0	0	1	0	0	1	0	12	12
Total	29	0	6	2	35	6	6	0	0	12	0	0	0	0	0	0	12	0	0	12	2	59	61
05:00 PM	3	0	2	0	5	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	9	9
05:15 PM	4	0	1	0	5	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	8	8
05:30 PM	3	0	0	0	3	2	0	0	0	2	0	0	0	0	0	0	3	0	0	3	0	8	8
05:45 PM	1	0	2	0	3	1	1	0	0	2	0	0	0	0	0	0	2	0	0	2	0	7	7
Total	11	0	5	0	16	4	5	0	0	9	0	0	0	0	0	0	7	0	0	7	0	32	32
Grand Total	40	0	11	2	51	10	11	0	0	21	0	0	0	0	0	0	19	0	0	19	2	91	93
Apprch %	78.4	0	21.6			47.6	52.4	0			0	0	0			0	100	0					
Total %	44	0	12.1		56	11	12.1	0		23.1	0	0	0		0	0	20.9	0		20.9	2.2	97.8	

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	2	0	**3**	5	**2**	1	0	3	0	0	0	0	0	**7**	0	**7**	15
04:15 PM	7	0	1	8	2	1	0	3	0	0	0	0	0	3	0	3	14
04:30 PM	**12**	0	1	**13**	1	**3**	0	**4**	0	0	0	0	0	1	0	1	**18**
04:45 PM	8	0	1	9	1	1	0	2	0	0	0	0	0	1	0	1	12
Total Volume	29	0	6	35	6	6	0	12	0	0	0	0	0	12	0	12	59
% App. Total	82.9	0	17.1		50	50	0		0	0	0		0	100	0		
PHF	.604	.000	.500	.673	.750	.500	.000	.750	.000	.000	.000	.000	.000	.429	.000	.429	.819

Packet Pg. 1573

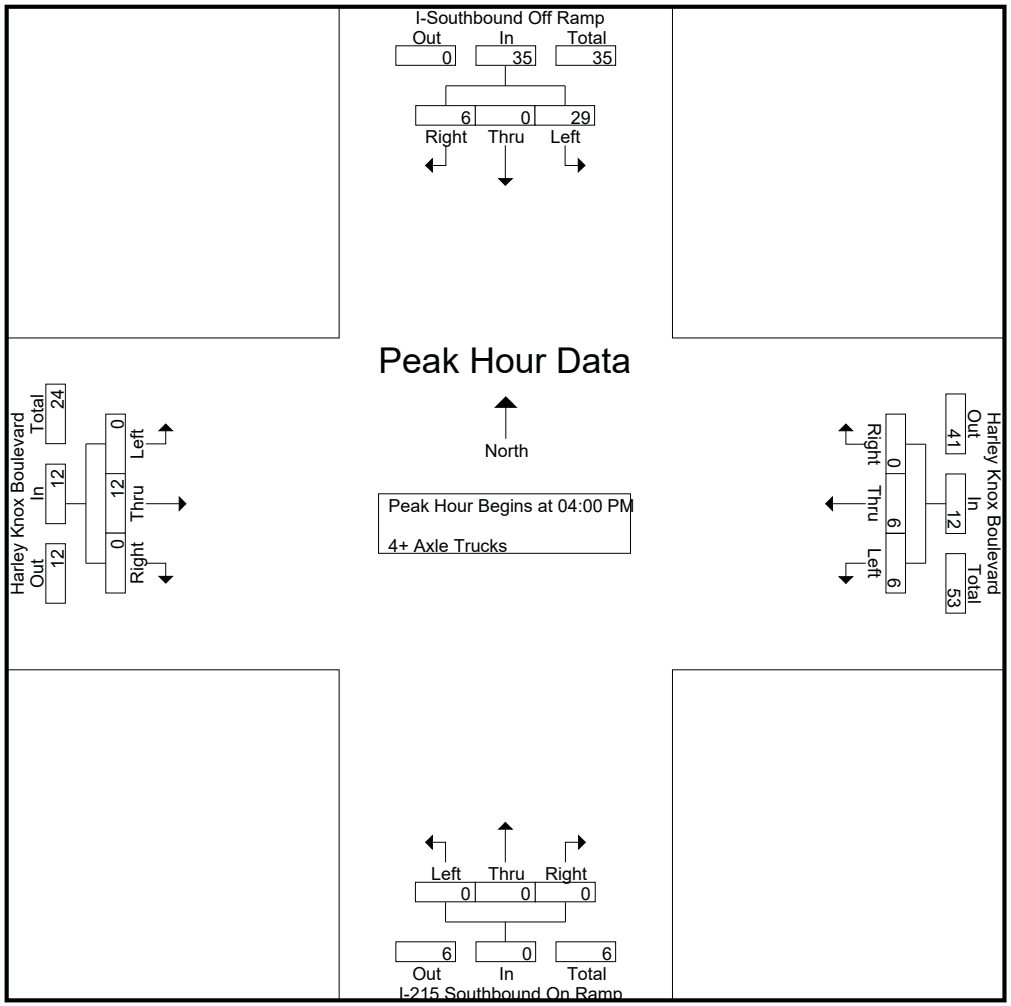
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215SHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:00 PM				04:00 PM				
+0 mins.	2	0	**3**	5	**2**	1	0	3	0	0	0	0	0	**7**	0	**7**	
+15 mins.	7	0	1	8	2	1	0	3	0	0	0	0	0	3	0	3	
+30 mins.	**12**	0	1	**13**	1	**3**	0	**4**	0	0	0	0	0	1	0	1	
+45 mins.	8	0	1	9	1	1	0	2	0	0	0	0	0	1	0	1	
Total Volume	29	0	6	35	6	6	0	12	0	0	0	0	0	12	0	12	
% App. Total	82.9	0	17.1		50	50	0		0	0	0		0	100	0		
PHF	.604	.000	.500	.673	.750	.500	.000	.750	.000	.000	.000	.000	.000	.429	.000	.429	

Packet Pg. 1575

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Location: Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

PEDESTRIANS

	North Leg I-215 Southbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Southbound Ramps	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-215 Southbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Southbound Ramps	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Location: Perris
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

BICYCLES

	North Leg I-215 Southbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Southbound Ramps	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-215 Southbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Southbound Ramps	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	142	124	4	266	2	1	19	13	22	60	122	0	0	182	17	470	487
07:15 AM	0	0	0	0	0	0	64	111	5	175	2	0	16	7	18	91	101	0	0	192	12	385	397
07:30 AM	0	0	0	0	0	0	64	111	9	175	5	1	13	8	19	76	147	0	0	223	17	417	434
07:45 AM	0	0	0	0	0	0	54	84	5	138	3	1	31	19	35	60	139	0	0	199	24	372	396
Total	0	0	0	0	0	0	324	430	23	754	12	3	79	47	94	287	509	0	0	796	70	1644	1714
08:00 AM	0	0	0	0	0	0	44	71	4	115	4	0	27	19	31	28	91	0	0	119	23	265	288
08:15 AM	0	0	0	0	0	0	36	73	4	109	1	0	25	23	26	25	54	0	0	79	27	214	241
08:30 AM	0	0	0	0	0	0	32	44	3	76	3	0	22	19	25	21	62	0	0	83	22	184	206
08:45 AM	0	0	0	0	0	0	30	42	4	72	4	0	16	13	20	22	59	0	0	81	17	173	190
Total	0	0	0	0	0	0	142	230	15	372	12	0	90	74	102	96	266	0	0	362	89	836	925
Grand Total	0	0	0	0	0	0	466	660	38	1126	24	3	169	121	196	383	775	0	0	1158	159	2480	2639
Apprch %	0	0	0			0	41.4	58.6			12.2	1.5	86.2			33.1	66.9	0					
Total %	0	0	0		0	0	18.8	26.6		45.4	1	0.1	6.8		7.9	15.4	31.2	0		46.7	6	94	
Passenger Vehicles	0	0	0		0	0	404	562		1001	23	2	133		255	353	668	0		1021	0	0	2277
% Passenger Vehicles	0	0	0	0	0	0	86.7	85.2	92.1	86	95.8	66.7	78.7	80.2	80.4	92.2	86.2	0	0	88.2	0	0	86.3
Large 2 Axle Vehicles	0	0	0		0	0	26	17		44	0	1	4		8	8	40	0		48	0	0	100
% Large 2 Axle Vehicles	0	0	0	0	0	0	5.6	2.6	2.6	3.8	0	33.3	2.4	2.5	2.5	2.1	5.2	0	0	4.1	0	0	3.8
3 Axle Vehicles	0	0	0		0	0	9	17		26	0	0	11		18	2	13	0		15	0	0	59
% 3 Axle Vehicles	0	0	0	0	0	0	1.9	2.6	0	2.2	0	0	6.5	5.8	5.7	0.5	1.7	0	0	1.3	0	0	2.2
4+ Axle Trucks	0	0	0		0	0	27	64		93	1	0	21		36	20	54	0		74	0	0	203
% 4+ Axle Trucks	0	0	0	0	0	0	5.8	9.7	5.3	8	4.2	0	12.4	11.6	11.4	5.2	7	0	0	6.4	0	0	7.7

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	**142**	**124**	**266**	2	**1**	19	22	60	122	0	182	**470**
07:15 AM	0	0	0	0	0	64	111	175	2	0	16	18	**91**	101	0	192	385
07:30 AM	0	0	0	0	0	64	111	175	**5**	1	13	19	76	**147**	0	**223**	417
07:45 AM	0	0	0	0	0	54	84	138	3	1	**31**	**35**	60	139	0	199	372
Total Volume	0	0	0	0	0	324	430	754	12	3	79	94	287	509	0	796	1644
% App. Total	0	0	0		0	43	57		12.8	3.2	84		36.1	63.9	0		
PHF	.000	.000	.000	.000	.000	.570	.867	.709	.600	.750	.637	.671	.788	.866	.000	.892	.874

Packet Pg. 1578

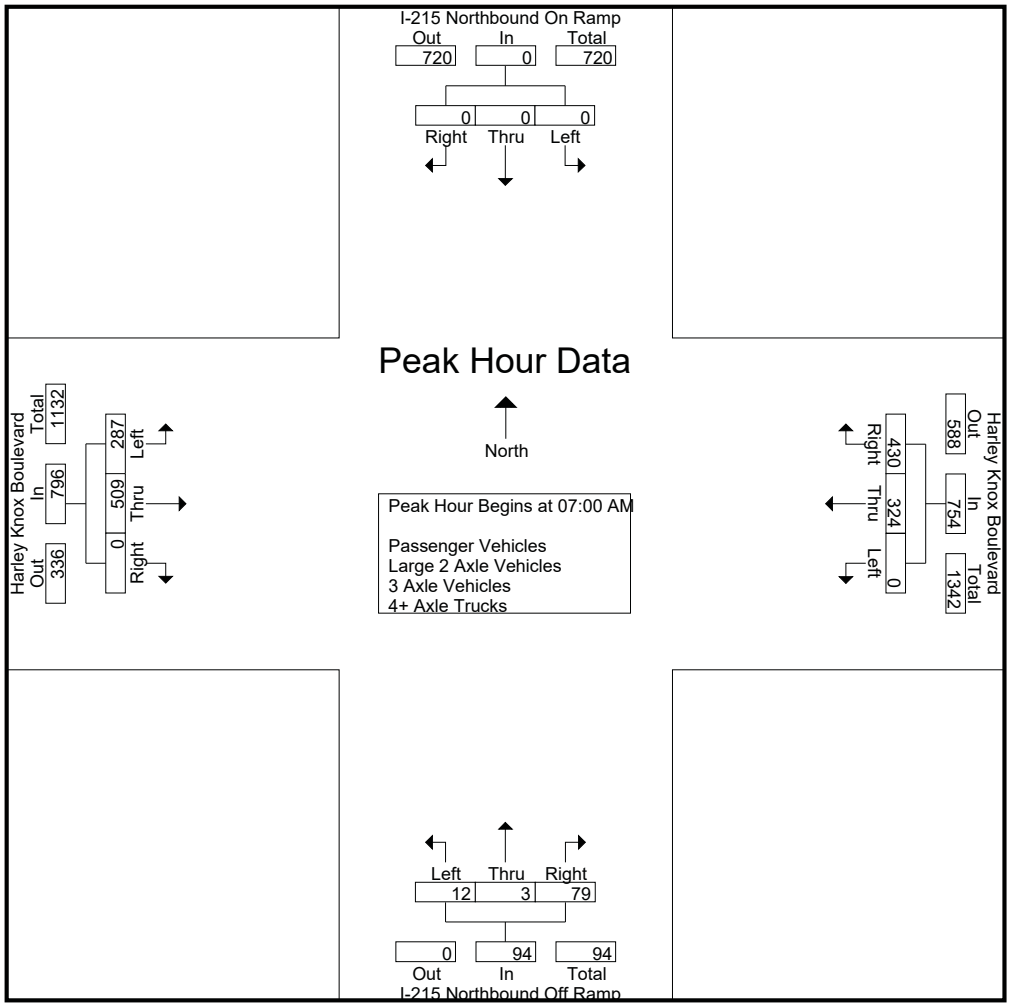
E.2.p

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1579

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:45 AM				07:00 AM				
+0 mins.	0	0	0	0	0	**142**	**124**	**266**	3	**1**	**31**	**35**	60	122	0	182	
+15 mins.	0	0	0	0	0	64	111	175	**4**	0	27	31	**91**	101	0	192	
+30 mins.	0	0	0	0	0	64	111	175	1	0	25	26	76	**147**	0	**223**	
+45 mins.	0	0	0	0	0	54	84	138	3	0	22	25	60	139	0	199	
Total Volume	0	0	0	0	0	324	430	754	11	1	105	117	287	509	0	796	
% App. Total	0	0	0		0	43	57		9.4	0.9	89.7		36.1	63.9	0		
PHF	.000	.000	.000	.000	.000	.570	.867	.709	.688	.250	.847	.836	.788	.866	.000	.892	

Packet Pg. 1580

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	132	115	3	247	2	1	12	9	15	60	109	0	0	169	12	431	443
07:15 AM	0	0	0	0	0	0	60	98	4	158	2	0	14	5	16	84	86	0	0	170	9	344	353
07:30 AM	0	0	0	0	0	0	56	97	9	153	5	1	9	5	15	70	135	0	0	205	14	373	387
07:45 AM	0	0	0	0	0	0	47	75	5	122	3	0	27	16	30	55	127	0	0	182	21	334	355
Total	0	0	0	0	0	0	295	385	21	680	12	2	62	35	76	269	457	0	0	726	56	1482	1538
08:00 AM	0	0	0	0	0	0	34	51	4	85	4	0	24	18	28	23	79	0	0	102	22	215	237
08:15 AM	0	0	0	0	0	0	29	57	4	86	1	0	19	19	20	23	42	0	0	65	23	171	194
08:30 AM	0	0	0	0	0	0	21	37	3	58	3	0	16	14	19	19	45	0	0	64	17	141	158
08:45 AM	0	0	0	0	0	0	25	32	3	57	3	0	12	11	15	19	45	0	0	64	14	136	150
Total	0	0	0	0	0	0	109	177	14	286	11	0	71	62	82	84	211	0	0	295	76	663	739
Grand Total	0	0	0	0	0	0	404	562	35	966	23	2	133	97	158	353	668	0	0	1021	132	2145	2277
Apprch %	0	0	0			0	41.8	58.2			14.6	1.3	84.2			34.6	65.4	0					
Total %	0	0	0		0	0	18.8	26.2		45	1.1	0.1	6.2		7.4	16.5	31.1	0		47.6	5.8	94.2	

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	**132**	**115**	**247**	2	**1**	12	15	60	109	0	169	**431**
07:15 AM	0	0	0	0	0	60	98	158	2	0	14	16	**84**	86	0	170	344
07:30 AM	0	0	0	0	0	56	97	153	**5**	1	9	15	70	**135**	0	**205**	373
07:45 AM	0	0	0	0	0	47	75	122	3	0	**27**	**30**	55	127	0	182	334
Total Volume	0	0	0	0	0	295	385	680	12	2	62	76	269	457	0	726	1482
% App. Total	0	0	0		0	43.4	56.6		15.8	2.6	81.6		37.1	62.9	0		
PHF	.000	.000	.000	.000	.000	.559	.837	.688	.600	.500	.574	.633	.801	.846	.000	.885	.860

Packet Pg. 1581

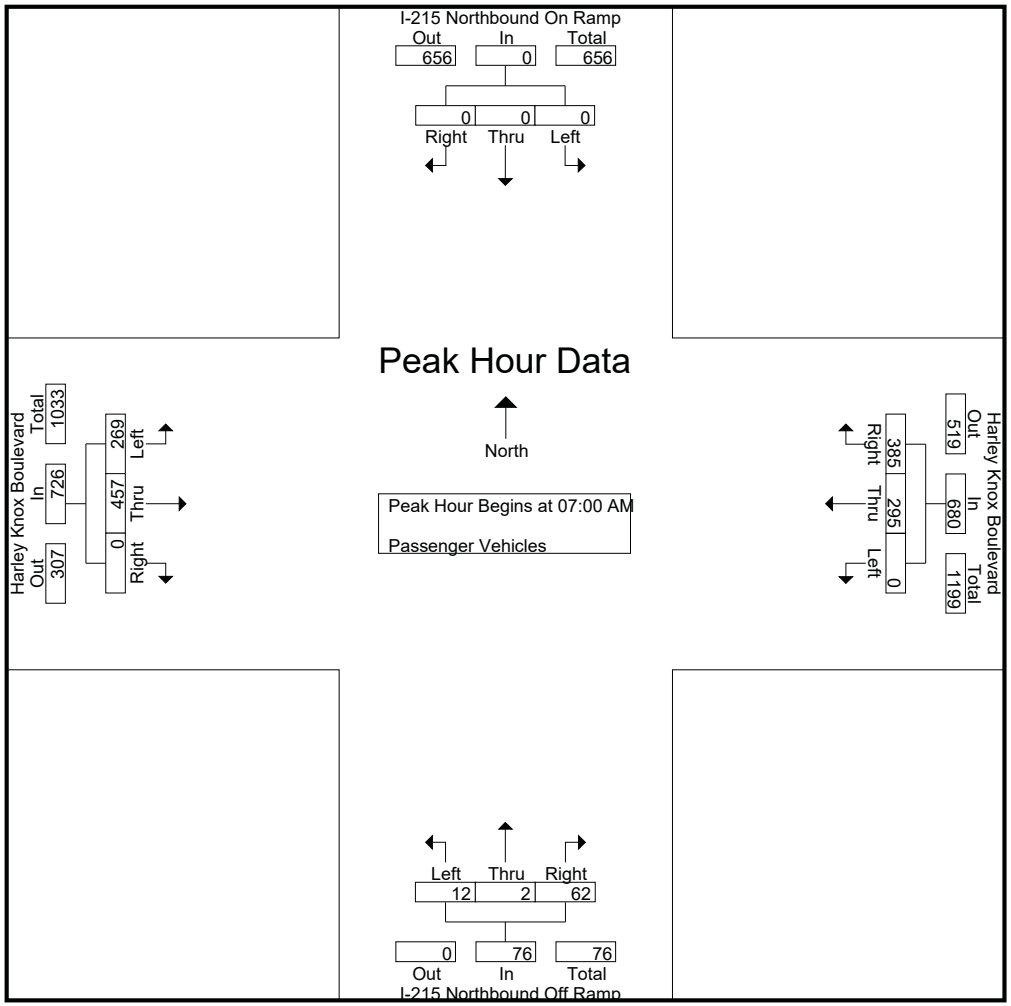
E.2.p

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1582

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	**132**	**115**	**247**	2	**1**	12	15	60	109	0	169	
+15 mins.	0	0	0	0	0	60	98	158	2	0	14	16	**84**	86	0	170	
+30 mins.	0	0	0	0	0	56	97	153	**5**	1	9	15	70	**135**	0	**205**	
+45 mins.	0	0	0	0	0	47	75	122	3	0	**27**	**30**	55	127	0	182	
Total Volume	0	0	0	0	0	295	385	680	12	2	62	76	269	457	0	726	
% App. Total	0	0	0		0	43.4	56.6		15.8	2.6	81.6		37.1	62.9	0		
PHF	.000	.000	.000	.000	.000	.559	.837	.688	.600	.500	.574	.633	.801	.846	.000	.885	

Packet Pg. 1583

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

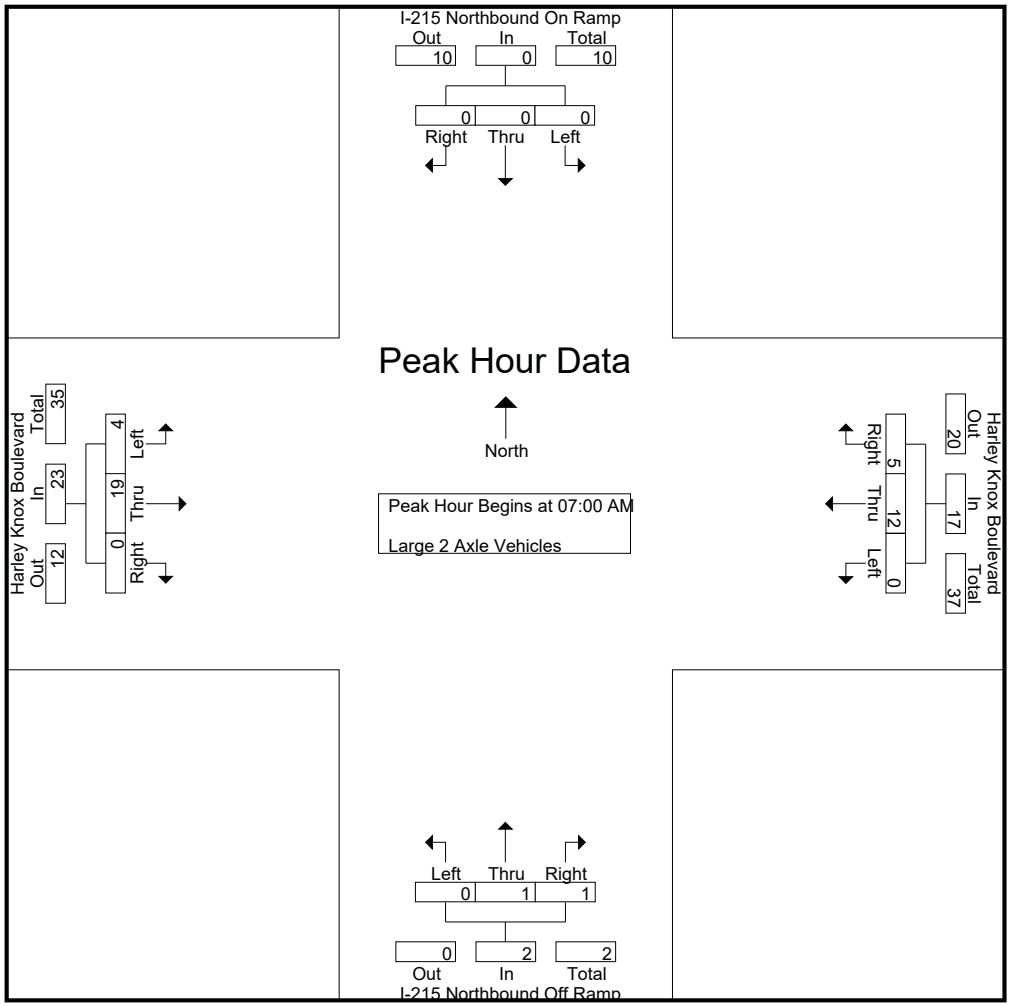
	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	4	0	0	4	0	10	10
07:15 AM	0	0	0	0	0	0	1	1	0	2	0	0	1	1	1	2	7	0	0	9	1	12	13
07:30 AM	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	1	3	0	0	4	0	8	8
07:45 AM	0	0	0	0	0	0	4	1	0	5	0	1	0	0	1	1	5	0	0	6	0	12	12
Total	0	0	0	0	0	0	12	5	0	17	0	1	1	1	2	4	19	0	0	23	1	42	43
08:00 AM	0	0	0	0	0	0	3	5	0	8	0	0	0	0	0	2	4	0	0	6	0	14	14
08:15 AM	0	0	0	0	0	0	4	6	0	10	0	0	1	1	1	0	6	0	0	6	1	17	18
08:30 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	2	8	0	0	10	0	15	15
08:45 AM	0	0	0	0	0	0	2	1	1	3	0	0	2	1	2	0	3	0	0	3	2	8	10
Total	0	0	0	0	0	0	14	12	1	26	0	0	3	2	3	4	21	0	0	25	3	54	57
Grand Total	0	0	0	0	0	0	26	17	1	43	0	1	4	3	5	8	40	0	0	48	4	96	100
Apprch %	0	0	0			0	60.5	39.5			0	20	80			16.7	83.3	0					
Total %	0	0	0		0	0	27.1	17.7		44.8	0	1	4.2		5.2	8.3	41.7	0		50	4	96	

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	**6**	0	**6**	0	0	0	0	0	4	0	4	10
07:15 AM	0	0	0	0	0	1	1	2	0	0	**1**	**1**	**2**	**7**	0	**9**	**12**
07:30 AM	0	0	0	0	0	1	**3**	4	0	0	0	0	1	3	0	4	8
07:45 AM	0	0	0	0	0	4	1	5	0	**1**	0	1	1	5	0	6	12
Total Volume	0	0	0	0	0	12	5	17	0	1	1	2	4	19	0	23	42
% App. Total	0	0	0		0	70.6	29.4		0	50	50		17.4	82.6	0		
PHF	.000	.000	.000	.000	.000	.500	.417	.708	.000	.250	.250	.500	.500	.679	.000	.639	.875

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1585

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	**6**	0	**6**	0	0	0	0	0	4	0	4	
+15 mins.	0	0	0	0	0	1	1	2	0	0	**1**	**1**	**2**	**7**	0	**9**	
+30 mins.	0	0	0	0	0	1	**3**	4	0	0	0	0	1	3	0	4	
+45 mins.	0	0	0	0	0	4	1	5	0	**1**	0	1	1	5	0	6	
Total Volume	0	0	0	0	0	12	5	17	0	1	1	2	4	19	0	23	
% App. Total	0	0	0		0	70.6	29.4		0	50	50		17.4	82.6	0		
PHF	.000	.000	.000	.000	.000	.500	.417	.708	.000	.250	.250	.500	.500	.679	.000	.639	

Packet Pg. 1586

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	2	0	3	0	0	4	1	4	0	1	0	0	1	1	8	9
07:15 AM	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	0	1	0	0	1	0	5	5
07:30 AM	0	0	0	0	0	0	1	3	0	4	0	0	1	1	1	1	4	0	0	5	1	10	11
07:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	2	2	2	1	1	0	0	2	2	5	7
Total	0	0	0	0	0	0	3	9	0	12	0	0	7	4	7	2	7	0	0	9	4	28	32
08:00 AM	0	0	0	0	0	0	1	2	0	3	0	0	1	0	1	0	0	0	0	0	0	4	4
08:15 AM	0	0	0	0	0	0	1	4	0	5	0	0	1	1	1	0	2	0	0	2	1	8	9
08:30 AM	0	0	0	0	0	0	4	2	0	6	0	0	2	2	2	0	4	0	0	4	2	12	14
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	6	8	0	14	0	0	4	3	4	0	6	0	0	6	3	24	27
Grand Total	0	0	0	0	0	0	9	17	0	26	0	0	11	7	11	2	13	0	0	15	7	52	59
Apprch %	0	0	0			0	34.6	65.4			0	0	100			13.3	86.7	0					
Total %	0	0	0		0	0	17.3	32.7		50	0	0	21.2		21.2	3.8	25	0		28.8	11.9	88.1	

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	**1**	2	3	0	0	**4**	**4**	0	1	0	1	8
07:15 AM	0	0	0	0	0	1	**3**	**4**	0	0	0	0	0	1	0	1	5
07:30 AM	0	0	0	0	0	1	3	4	0	0	1	1	**1**	**4**	0	**5**	**10**
07:45 AM	0	0	0	0	0	0	1	1	0	0	2	2	1	1	0	2	5
Total Volume	0	0	0	0	0	3	9	12	0	0	7	7	2	7	0	9	28
% App. Total	0	0	0		0	25	75		0	0	100		22.2	77.8	0		
PHF	.000	.000	.000	.000	.000	.750	.750	.750	.000	.000	.438	.438	.500	.438	.000	.450	.700

Packet Pg. 1587

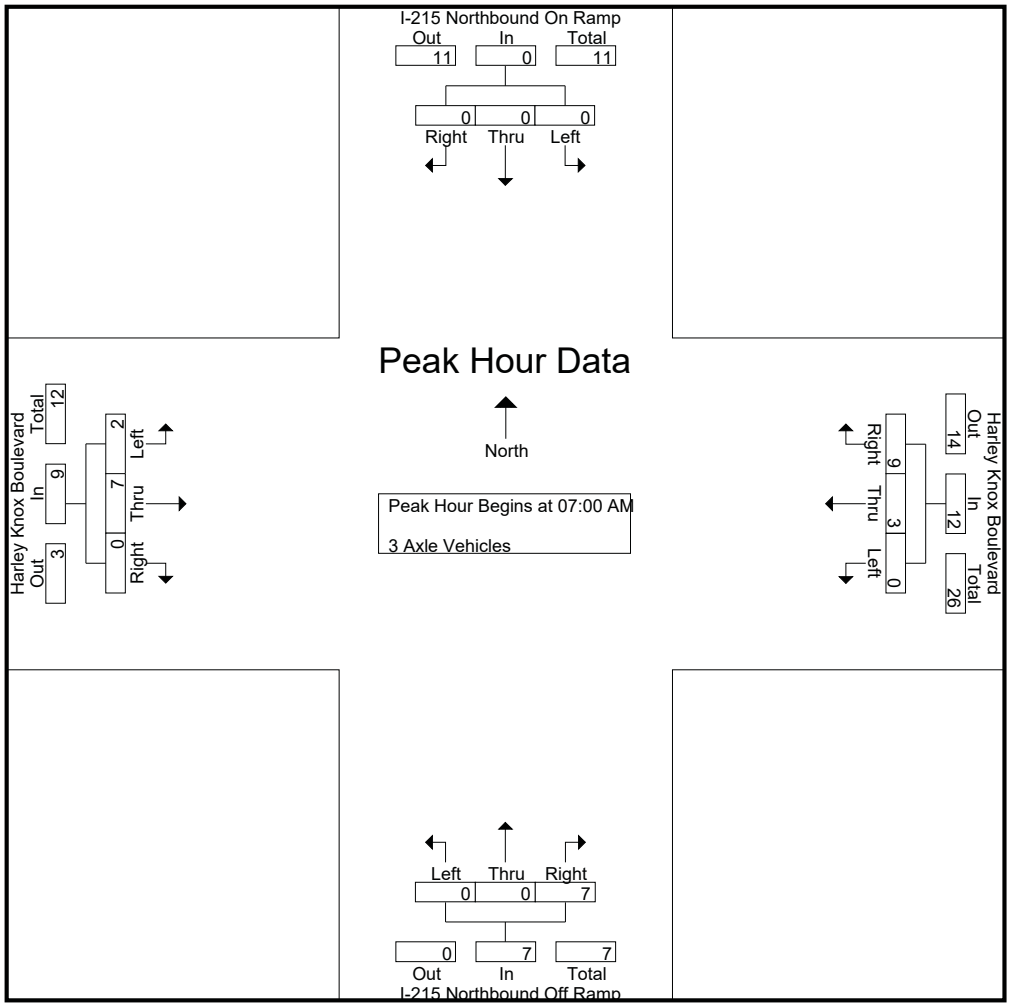
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1588

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	**1**	2	3	0	0	**4**	**4**	0	1	0	1	
+15 mins.	0	0	0	0	0	1	**3**	**4**	0	0	0	0	0	1	0	1	
+30 mins.	0	0	0	0	0	1	3	4	0	0	1	1	**1**	**4**	0	**5**	
+45 mins.	0	0	0	0	0	0	1	1	0	0	2	2	1	1	0	2	
Total Volume	0	0	0	0	0	3	9	12	0	0	7	7	2	7	0	9	
% App. Total	0	0	0		0	25	75		0	0	100		22.2	77.8	0		
PHF	.000	.000	.000	.000	.000	.750	.750	.750	.000	.000	.438	.438	.500	.438	.000	.450	

Packet Pg. 1589

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	3	7	1	10	0	0	3	3	3	0	8	0	0	8	4	21	25
07:15 AM	0	0	0	0	0	0	2	9	1	11	0	0	1	1	1	5	7	0	0	12	2	24	26
07:30 AM	0	0	0	0	0	0	6	8	0	14	0	0	3	2	3	4	5	0	0	9	2	26	28
07:45 AM	0	0	0	0	0	0	3	7	0	10	0	0	2	1	2	3	6	0	0	9	1	21	22
Total	0	0	0	0	0	0	14	31	2	45	0	0	9	7	9	12	26	0	0	38	9	92	101
08:00 AM	0	0	0	0	0	0	6	13	0	19	0	0	2	1	2	3	8	0	0	11	1	32	33
08:15 AM	0	0	0	0	0	0	2	6	0	8	0	0	4	2	4	2	4	0	0	6	2	18	20
08:30 AM	0	0	0	0	0	0	2	5	0	7	0	0	4	3	4	0	5	0	0	5	3	16	19
08:45 AM	0	0	0	0	0	0	3	9	0	12	1	0	2	1	3	3	11	0	0	14	1	29	30
Total	0	0	0	0	0	0	13	33	0	46	1	0	12	7	13	8	28	0	0	36	7	95	102
Grand Total	0	0	0	0	0	0	27	64	2	91	1	0	21	14	22	20	54	0	0	74	16	187	203
Apprch %	0	0	0			0	29.7	70.3			4.5	0	95.5			27	73	0					
Total %	0	0	0		0	0	14.4	34.2		48.7	0.5	0	11.2		11.8	10.7	28.9	0		39.6	7.9	92.1	

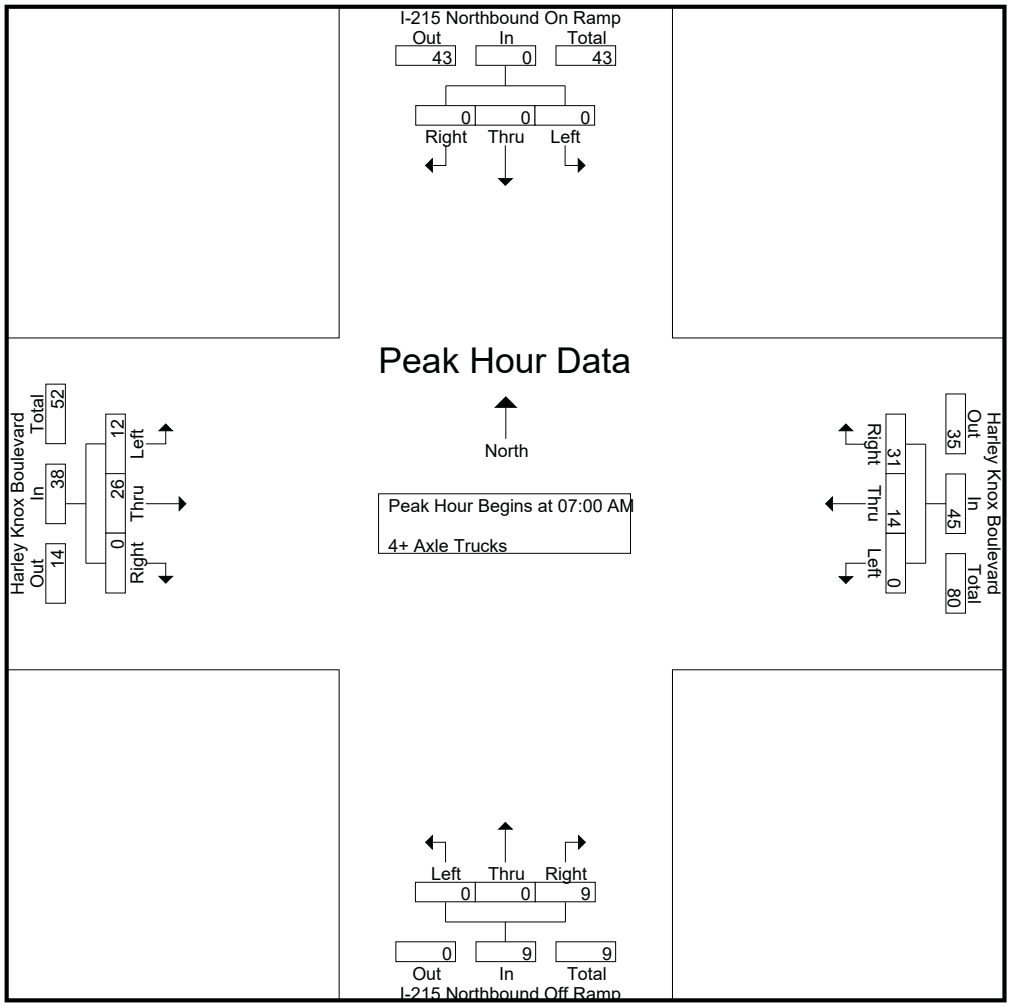
	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	3	7	10	0	0	**3**	**3**	0	**8**	0	8	21
07:15 AM	0	0	0	0	0	2	**9**	11	0	0	1	1	**5**	7	0	**12**	24
07:30 AM	0	0	0	0	0	**6**	8	**14**	0	0	3	3	4	5	0	9	**26**
07:45 AM	0	0	0	0	0	3	7	10	0	0	2	2	3	6	0	9	21
Total Volume	0	0	0	0	0	14	31	45	0	0	9	9	12	26	0	38	92
% App. Total	0	0	0		0	31.1	68.9		0	0	100		31.6	68.4	0		
PHF	.000	.000	.000	.000	.000	.583	.861	.804	.000	.000	.750	.750	.600	.813	.000	.792	.885

Packet Pg. 1590
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING
E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1591

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	3	7	10	0	0	**3**	**3**	0	**8**	0	8	
+15 mins.	0	0	0	0	0	2	**9**	11	0	0	1	1	**5**	7	0	**12**	
+30 mins.	0	0	0	0	0	**6**	8	**14**	0	0	3	3	4	5	0	9	
+45 mins.	0	0	0	0	0	3	7	10	0	0	2	2	3	6	0	9	
Total Volume	0	0	0	0	0	14	31	45	0	0	9	9	12	26	0	38	
% App. Total	0	0	0		0	31.1	68.9		0	0	100		31.6	68.4	0		
PHF	.000	.000	.000	.000	.000	.583	.861	.804	.000	.000	.750	.750	.600	.813	.000	.792	

Packet Pg. 1592

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	60	95	2	155	3	0	26	21	29	47	94	0	0	141	23	325	348
04:15 PM	0	0	0	0	0	0	51	73	4	124	1	0	45	40	46	48	109	0	0	157	44	327	371
04:30 PM	0	0	0	0	0	0	82	124	3	206	2	0	53	45	55	66	125	0	0	191	48	452	500
04:45 PM	0	0	0	0	0	0	87	141	2	228	1	0	32	28	33	42	103	0	0	145	30	406	436
Total	0	0	0	0	0	0	280	433	11	713	7	0	156	134	163	203	431	0	0	634	145	1510	1655
05:00 PM	0	0	0	0	0	0	63	97	0	160	0	0	33	28	33	58	82	0	0	140	28	333	361
05:15 PM	0	0	0	0	0	0	49	58	0	107	1	0	26	23	27	31	80	0	0	111	23	245	268
05:30 PM	0	0	0	0	0	0	72	84	0	156	1	0	58	53	59	40	111	0	0	151	53	366	419
05:45 PM	0	0	0	0	0	0	66	92	3	158	1	0	69	66	70	34	104	0	0	138	69	366	435
Total	0	0	0	0	0	0	250	331	3	581	3	0	186	170	189	163	377	0	0	540	173	1310	1483
Grand Total	0	0	0	0	0	0	530	764	14	1294	10	0	342	304	352	366	808	0	0	1174	318	2820	3138
Apprch %	0	0	0			0	41	59			2.8	0	97.2			31.2	68.8	0					
Total %	0	0	0		0	0	18.8	27.1		45.9	0.4	0	12.1		12.5	13	28.7	0		41.6	10.1	89.9	
Passenger Vehicles	0	0	0		0	0	506	678		1197	7	0	307		592	343	728	0		1071	0	0	2860
% Passenger Vehicles	0	0	0	0	0	0	95.5	88.7	92.9	91.5	70	0	89.8	91.4	90.2	93.7	90.1	0	0	91.2	0	0	91.1
Large 2 Axle Vehicles	0	0	0		0	0	5	9		14	0	0	4		7	4	17	0		21	0	0	42
% Large 2 Axle Vehicles	0	0	0	0	0	0	0.9	1.2	0	1.1	0	0	1.2	1	1.1	1.1	2.1	0	0	1.8	0	0	1.3
3 Axle Vehicles	0	0	0		0	0	1	19		20	0	0	26		46	4	18	0		22	0	0	88
% 3 Axle Vehicles	0	0	0	0	0	0	0.2	2.5	0	1.5	0	0	7.6	6.6	7	1.1	2.2	0	0	1.9	0	0	2.8
4+ Axle Trucks	0	0	0		0	0	18	58		77	3	0	5		11	15	45	0		60	0	0	148
% 4+ Axle Trucks	0	0	0	0	0	0	3.4	7.6	7.1	5.9	30	0	1.5	1	1.7	4.1	5.6	0	0	5.1	0	0	4.7

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	51	73	124	1	0	45	46	48	109	0	157	327
04:30 PM	0	0	0	0	0	82	124	206	**2**	0	**53**	**55**	**66**	**125**	0	**191**	**452**
04:45 PM	0	0	0	0	0	**87**	**141**	**228**	1	0	32	33	42	103	0	145	406
05:00 PM	0	0	0	0	0	63	97	160	0	0	33	33	58	82	0	140	333
Total Volume	0	0	0	0	0	283	435	718	4	0	163	167	214	419	0	633	1518
% App. Total	0	0	0		0	39.4	60.6		2.4	0	97.6		33.8	66.2	0		
PHF	.000	.000	.000	.000	.000	.813	.771	.787	.500	.000	.769	.759	.811	.838	.000	.829	.840

Packet Pg. 1593

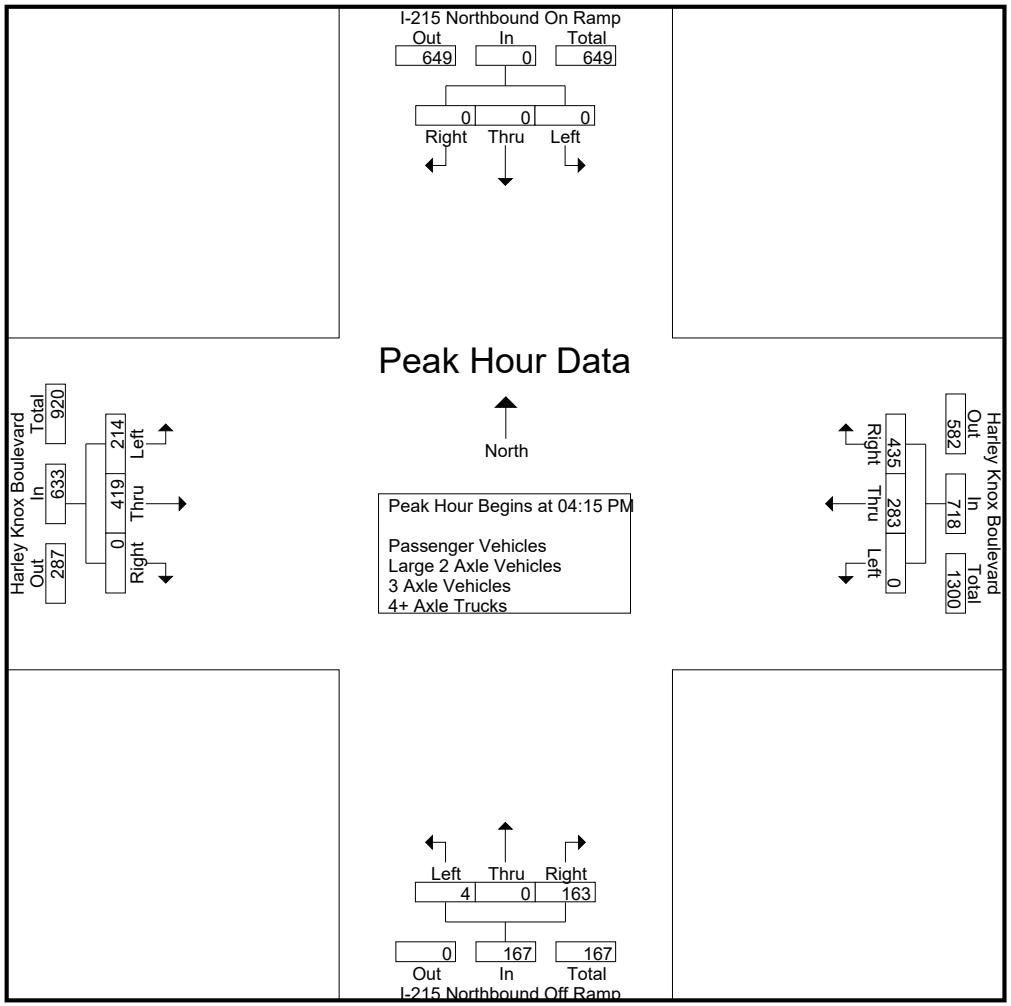
E.2.p

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1594

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:15 PM				05:00 PM				04:00 PM				
+0 mins.	0	0	0	0	0	51	73	124	0	0	33	33	47	94	0	141	
+15 mins.	0	0	0	0	0	82	124	206	**1**	0	26	27	48	109	0	157	
+30 mins.	0	0	0	0	0	**87**	**141**	**228**	1	0	58	59	**66**	**125**	0	**191**	
+45 mins.	0	0	0	0	0	63	97	160	1	0	**69**	**70**	42	103	0	145	
Total Volume	0	0	0	0	0	283	435	718	3	0	186	189	203	431	0	634	
% App. Total	0	0	0		0	39.4	60.6		1.6	0	98.4		32	68	0		
PHF	.000	.000	.000	.000	.000	.813	.771	.787	.750	.000	.674	.675	.769	.862	.000	.830	

Packet Pg. 1595

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	57	85	2	142	2	0	22	20	24	42	84	0	0	126	22	292	314
04:15 PM	0	0	0	0	0	0	46	58	3	104	1	0	38	35	39	44	99	0	0	143	38	286	324
04:30 PM	0	0	0	0	0	0	76	111	3	187	1	0	45	39	46	64	107	0	0	171	42	404	446
04:45 PM	0	0	0	0	0	0	86	127	2	213	0	0	29	26	29	41	91	0	0	132	28	374	402
Total	0	0	0	0	0	0	265	381	10	646	4	0	134	120	138	191	381	0	0	572	130	1356	1486
05:00 PM	0	0	0	0	0	0	59	95	0	154	0	0	28	23	28	55	73	0	0	128	23	310	333
05:15 PM	0	0	0	0	0	0	48	50	0	98	1	0	25	22	26	29	72	0	0	101	22	225	247
05:30 PM	0	0	0	0	0	0	70	72	0	142	1	0	54	50	55	36	102	0	0	138	50	335	385
05:45 PM	0	0	0	0	0	0	64	80	3	144	1	0	66	63	67	32	100	0	0	132	66	343	409
Total	0	0	0	0	0	0	241	297	3	538	3	0	173	158	176	152	347	0	0	499	161	1213	1374
Grand Total	0	0	0	0	0	0	506	678	13	1184	7	0	307	278	314	343	728	0	0	1071	291	2569	2860
Apprch %	0	0	0			0	42.7	57.3			2.2	0	97.8			32	68	0					
Total %	0	0	0		0	0	19.7	26.4		46.1	0.3	0	12		12.2	13.4	28.3	0		41.7	10.2	89.8	

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	46	58	104	**1**	0	38	39	44	99	0	143	286
04:30 PM	0	0	0	0	0	76	111	187	1	0	**45**	**46**	**64**	**107**	0	**171**	**404**
04:45 PM	0	0	0	0	0	**86**	**127**	**213**	0	0	29	29	41	91	0	132	374
05:00 PM	0	0	0	0	0	59	95	154	0	0	28	28	55	73	0	128	310
Total Volume	0	0	0	0	0	267	391	658	2	0	140	142	204	370	0	574	1374
% App. Total	0	0	0		0	40.6	59.4		1.4	0	98.6		35.5	64.5	0		
PHF	.000	.000	.000	.000	.000	.776	.770	.772	.500	.000	.778	.772	.797	.864	.000	.839	.850

Packet Pg. 1596

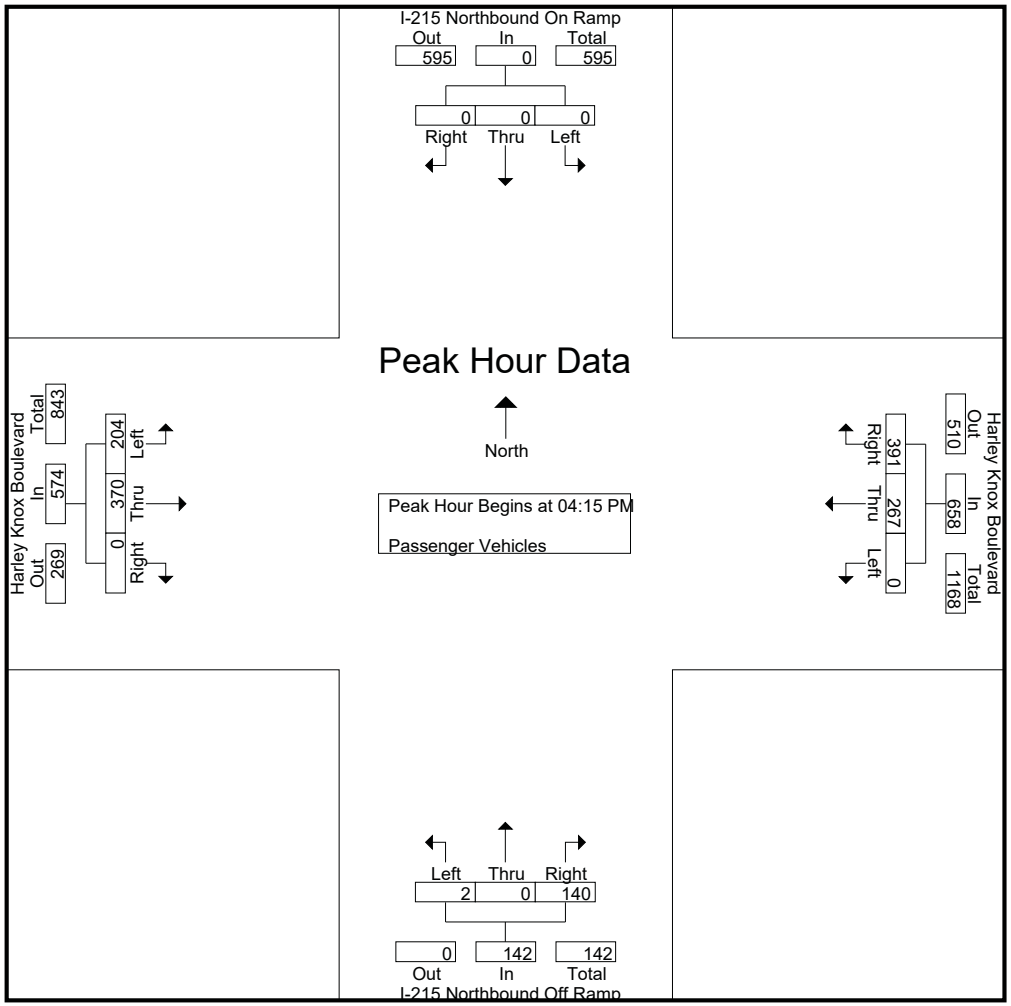
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1597

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	0	0	0	46	58	104	**1**	0	38	39	44	99	0	143	
+15 mins.	0	0	0	0	0	76	111	187	1	0	**45**	**46**	**64**	**107**	0	**171**	
+30 mins.	0	0	0	0	0	**86**	**127**	**213**	0	0	29	29	41	91	0	132	
+45 mins.	0	0	0	0	0	59	95	154	0	0	28	28	55	73	0	128	
Total Volume	0	0	0	0	0	267	391	658	2	0	140	142	204	370	0	574	
% App. Total	0	0	0		0	40.6	59.4		1.4	0	98.6		35.5	64.5	0		
PHF	.000	.000	.000	.000	.000	.776	.770	.772	.500	.000	.778	.772	.797	.864	.000	.839	

Packet Pg. 1598

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	2	0	3	0	0	2	1	2	0	4	0	0	4	1	9	10
04:15 PM	0	0	0	0	0	0	0	2	0	2	0	0	1	1	1	1	3	0	0	4	1	7	8
04:30 PM	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	1	0	0	1	0	6	6
04:45 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2	0	0	2	0	4	4
Total	0	0	0	0	0	0	5	7	0	12	0	0	3	2	3	1	10	0	0	11	2	26	28
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	2	2
05:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	2	0	0	3	0	4	4
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	3	3
05:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	1	1	1	0	2	0	0	2	1	4	5
Total	0	0	0	0	0	0	0	2	0	2	0	0	1	1	1	3	7	0	0	10	1	13	14
Grand Total	0	0	0	0	0	0	5	9	0	14	0	0	4	3	4	4	17	0	0	21	3	39	42
Apprch %	0	0	0			0	35.7	64.3			0	0	100			19	81	0					
Total %	0	0	0		0	0	12.8	23.1		35.9	0	0	10.3		10.3	10.3	43.6	0		53.8	7.1	92.9	

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	**2**	2	0	0	**1**	**1**	**1**	**3**	0	**4**	**7**
04:30 PM	0	0	0	0	0	**4**	1	**5**	0	0	0	0	0	1	0	1	6
04:45 PM	0	0	0	0	0	0	2	2	0	0	0	0	0	2	0	2	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	2
Total Volume	0	0	0	0	0	4	5	9	0	0	1	1	2	7	0	9	19
% App. Total	0	0	0		0	44.4	55.6		0	0	100		22.2	77.8	0		
PHF	.000	.000	.000	.000	.000	.250	.625	.450	.000	.000	.250	.250	.500	.583	.000	.563	.679

Packet Pg. 1599

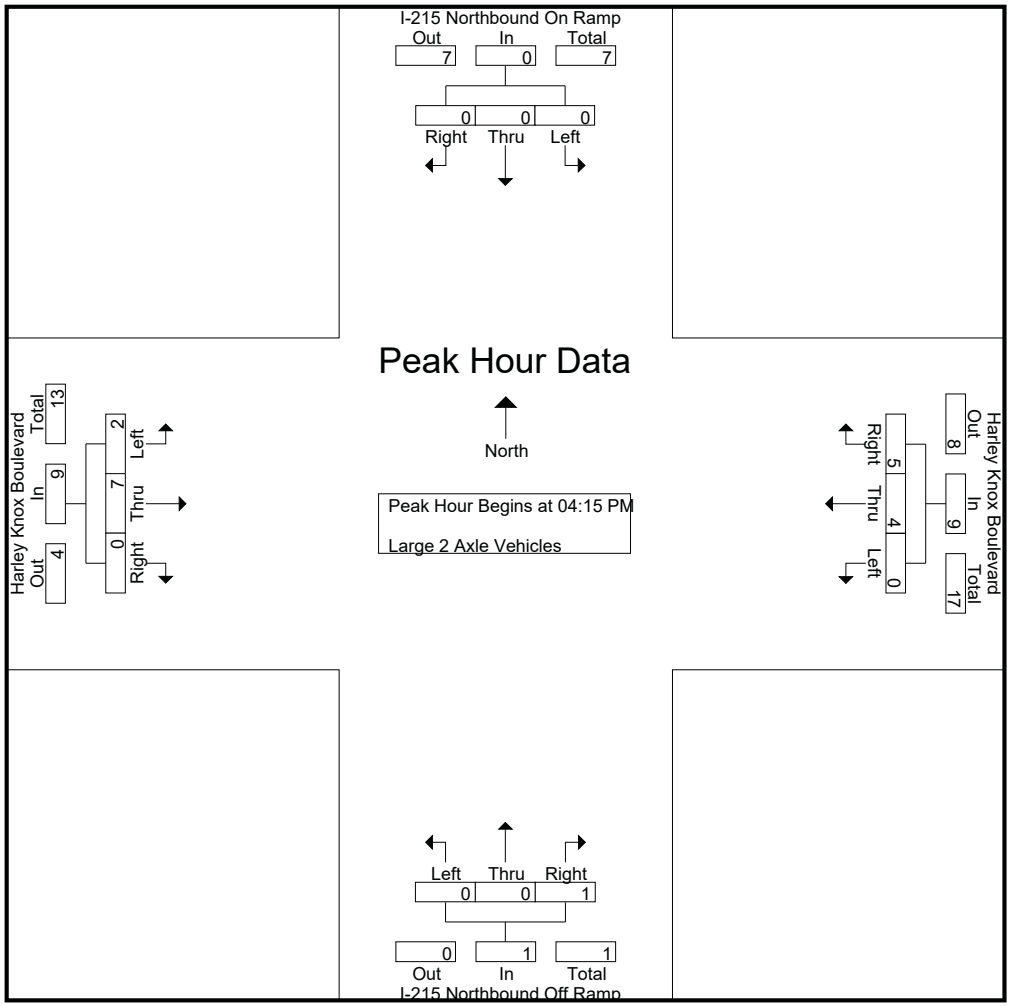
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1600

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	0	0	0	0	**2**	2	0	0	**1**	**1**	**1**	**3**	0	**4**	
+15 mins.	0	0	0	0	0	**4**	1	**5**	0	0	0	0	0	1	0	1	
+30 mins.	0	0	0	0	0	0	2	2	0	0	0	0	0	2	0	2	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	
Total Volume	0	0	0	0	0	4	5	9	0	0	1	1	2	7	0	9	
% App. Total	0	0	0		0	44.4	55.6		0	0	100		22.2	77.8	0		
PHF	.000	.000	.000	.000	.000	.250	.625	.450	.000	.000	.250	.250	.500	.583	.000	.563	

Packet Pg. 1601

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	2	0	2	0	0	1	0	1	0	2	0	0	2	0	5	5
04:15 PM	0	0	0	0	0	0	1	3	0	4	0	0	5	3	5	1	0	0	0	1	3	10	13
04:30 PM	0	0	0	0	0	0	0	3	0	3	0	0	6	5	6	0	4	0	0	4	5	13	18
04:45 PM	0	0	0	0	0	0	0	3	0	3	0	0	3	2	3	0	2	0	0	2	2	8	10
Total	0	0	0	0	0	0	1	11	0	12	0	0	15	10	15	1	8	0	0	9	10	36	46
05:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	5	5	5	2	5	0	0	7	5	13	18
05:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
05:30 PM	0	0	0	0	0	0	0	3	0	3	0	0	4	3	4	1	3	0	0	4	3	11	14
05:45 PM	0	0	0	0	0	0	0	3	0	3	0	0	2	2	2	0	1	0	0	1	2	6	8
Total	0	0	0	0	0	0	0	8	0	8	0	0	11	10	11	3	10	0	0	13	10	32	42
Grand Total	0	0	0	0	0	0	1	19	0	20	0	0	26	20	26	4	18	0	0	22	20	68	88
Apprch %	0	0	0			0	5	95			0	0	100			18.2	81.8	0					
Total %	0	0	0		0	0	1.5	27.9		29.4	0	0	38.2		38.2	5.9	26.5	0		32.4	22.7	77.3	

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	**1**	**3**	**4**	0	0	5	5	1	0	0	1	10
04:30 PM	0	0	0	0	0	0	3	3	0	0	**6**	**6**	0	4	0	4	**13**
04:45 PM	0	0	0	0	0	0	3	3	0	0	3	3	0	2	0	2	8
05:00 PM	0	0	0	0	0	0	1	1	0	0	5	5	**2**	**5**	0	**7**	13
Total Volume	0	0	0	0	0	1	10	11	0	0	19	19	3	11	0	14	44
% App. Total	0	0	0		0	9.1	90.9		0	0	100		21.4	78.6	0		
PHF	.000	.000	.000	.000	.000	.250	.833	.688	.000	.000	.792	.792	.375	.550	.000	.500	.846

Packet Pg. 1602

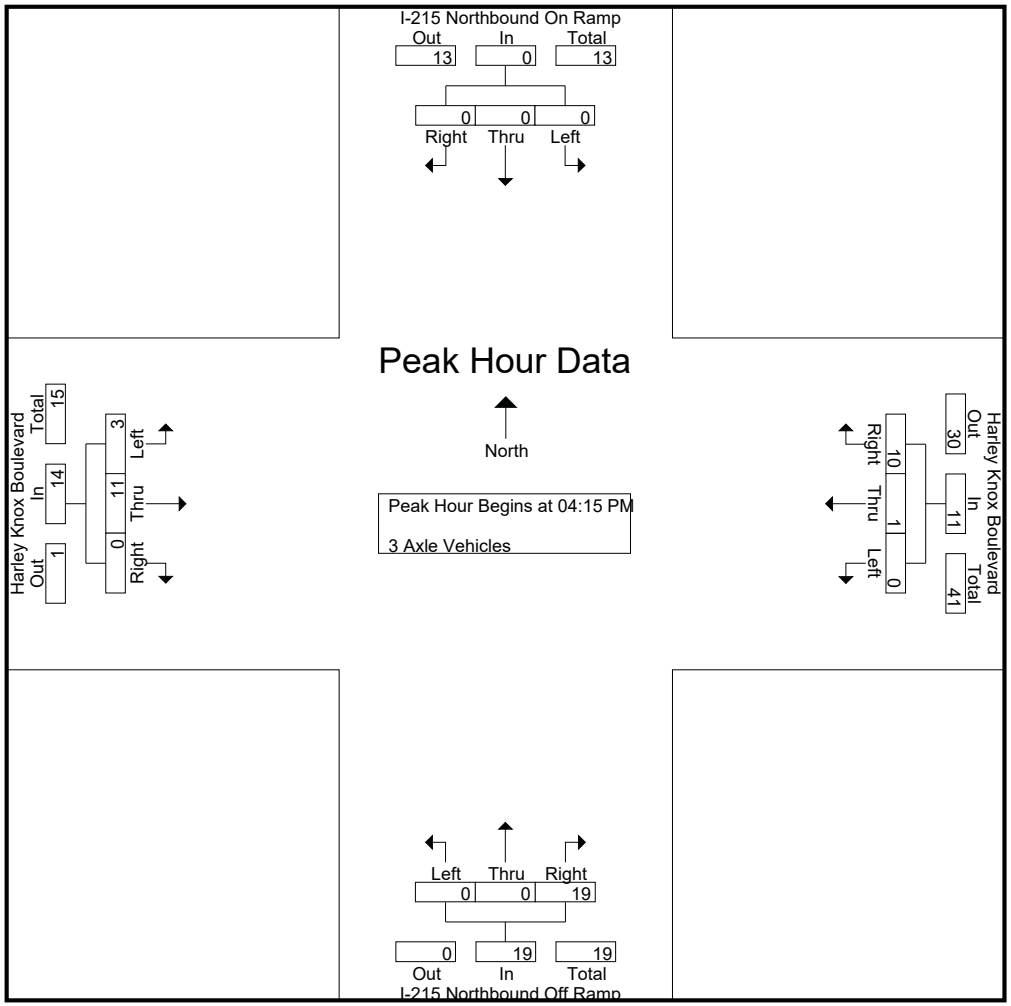
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1603

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	0	0	0	**1**	**3**	**4**	0	0	5	5	1	0	0	1	
+15 mins.	0	0	0	0	0	0	3	3	0	0	**6**	**6**	0	4	0	4	
+30 mins.	0	0	0	0	0	0	3	3	0	0	3	3	0	2	0	2	
+45 mins.	0	0	0	0	0	0	1	1	0	0	5	5	**2**	**5**	0	**7**	
Total Volume	0	0	0	0	0	1	10	11	0	0	19	19	3	11	0	14	
% App. Total	0	0	0		0	9.1	90.9		0	0	100		21.4	78.6	0		
PHF	.000	.000	.000	.000	.000	.250	.833	.688	.000	.000	.792	.792	.375	.550	.000	.500	

Packet Pg. 1604

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	2	6	0	8	1	0	1	0	2	5	4	0	0	9	0	19	19
04:15 PM	0	0	0	0	0	0	4	10	1	14	0	0	1	1	1	2	7	0	0	9	2	24	26
04:30 PM	0	0	0	0	0	0	2	9	0	11	1	0	2	1	3	2	13	0	0	15	1	29	30
04:45 PM	0	0	0	0	0	0	1	9	0	10	1	0	0	0	1	1	8	0	0	9	0	20	20
Total	0	0	0	0	0	0	9	34	1	43	3	0	4	2	7	10	32	0	0	42	3	92	95
05:00 PM	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	3	0	0	3	0	8	8
05:15 PM	0	0	0	0	0	0	1	6	0	7	0	0	1	1	1	1	5	0	0	6	1	14	15
05:30 PM	0	0	0	0	0	0	2	9	0	11	0	0	0	0	0	2	4	0	0	6	0	17	17
05:45 PM	0	0	0	0	0	0	2	8	0	10	0	0	0	0	0	2	1	0	0	3	0	13	13
Total	0	0	0	0	0	0	9	24	0	33	0	0	1	1	1	5	13	0	0	18	1	52	53
Grand Total	0	0	0	0	0	0	18	58	1	76	3	0	5	3	8	15	45	0	0	60	4	144	148
Apprch %	0	0	0			0	23.7	76.3			37.5	0	62.5			25	75	0					
Total %	0	0	0		0	0	12.5	40.3		52.8	2.1	0	3.5		5.6	10.4	31.2	0		41.7	2.7	97.3	

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	**4**	**10**	**14**	0	0	1	1	**2**	7	0	9	24
04:30 PM	0	0	0	0	0	2	9	11	**1**	0	**2**	**3**	2	**13**	0	**15**	**29**
04:45 PM	0	0	0	0	0	1	9	10	1	0	0	1	1	8	0	9	20
05:00 PM	0	0	0	0	0	4	1	5	0	0	0	0	0	3	0	3	8
Total Volume	0	0	0	0	0	11	29	40	2	0	3	5	5	31	0	36	81
% App. Total	0	0	0		0	27.5	72.5		40	0	60		13.9	86.1	0		
PHF	.000	.000	.000	.000	.000	.688	.725	.714	.500	.000	.375	.417	.625	.596	.000	.600	.698

Packet Pg. 1605

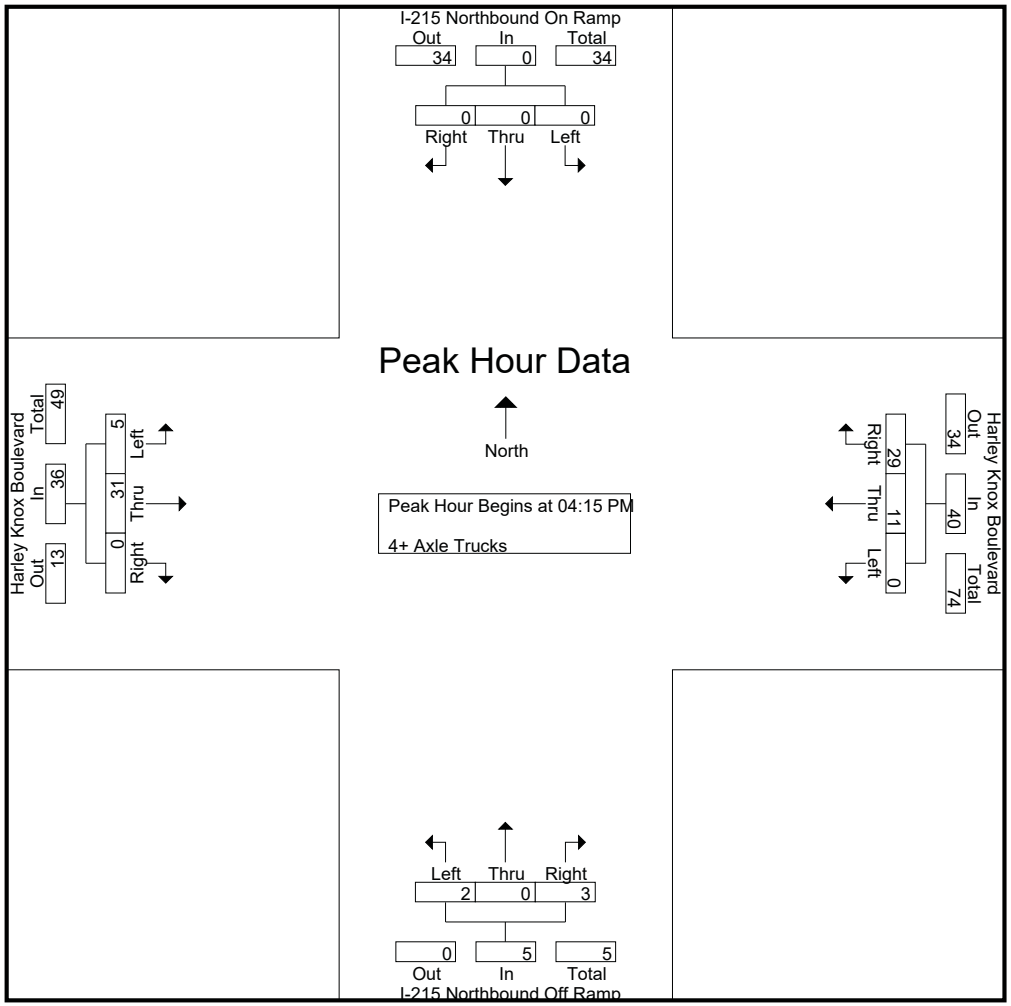
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1606

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PER215NHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	0	0	0	**4**	**10**	**14**	0	0	1	1	**2**	7	0	9	
+15 mins.	0	0	0	0	0	2	9	11	**1**	0	**2**	**3**	2	**13**	0	**15**	
+30 mins.	0	0	0	0	0	1	9	10	1	0	0	1	1	8	0	9	
+45 mins.	0	0	0	0	0	4	1	5	0	0	0	0	0	3	0	3	
Total Volume	0	0	0	0	0	11	29	40	2	0	3	5	5	31	0	36	
% App. Total	0	0	0		0	27.5	72.5		40	0	60		13.9	86.1	0		
PHF	.000	.000	.000	.000	.000	.688	.725	.714	.500	.000	.375	.417	.625	.596	.000	.600	

Packet Pg. 1607

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Location: Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

PEDESTRIANS

	North Leg I-215 Northbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Northbound Ramps	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-215 Northbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Northbound Ramps	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Location: Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

BICYCLES

	North Leg I-215 Northbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Northbound Ramps	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-215 Northbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Northbound Ramps	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	1	0	0	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	1

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWEHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	1	13	14	248	9	257	19	113	132	403
07:15 AM	0	10	10	157	1	158	12	106	118	286
07:30 AM	1	11	12	163	8	171	14	130	144	327
07:45 AM	0	11	11	127	7	134	12	145	157	302
Total	2	45	47	695	25	720	57	494	551	1318
08:00 AM	2	10	12	89	10	99	27	94	121	232
08:15 AM	6	14	20	92	8	100	13	66	79	199
08:30 AM	3	14	17	61	4	65	21	53	74	156
08:45 AM	4	12	16	60	6	66	11	63	74	156
Total	15	50	65	302	28	330	72	276	348	743
Grand Total	17	95	112	997	53	1050	129	770	899	2061
Apprch %	15.2	84.8		95	5		14.3	85.7		
Total %	0.8	4.6	5.4	48.4	2.6	50.9	6.3	37.4	43.6	
Passenger Vehicles	15	67	82	898	48	946	113	684	797	1825
% Passenger Vehicles	88.2	70.5	73.2	90.1	90.6	90.1	87.6	88.8	88.7	88.5
Large 2 Axle Vehicles	2	11	13	21	4	25	7	28	35	73
% Large 2 Axle Vehicles	11.8	11.6	11.6	2.1	7.5	2.4	5.4	3.6	3.9	3.5
3 Axle Vehicles	0	5	5	19	1	20	2	21	23	48
% 3 Axle Vehicles	0	5.3	4.5	1.9	1.9	1.9	1.6	2.7	2.6	2.3
4+ Axle Trucks	0	12	12	59	0	59	7	37	44	115
% 4+ Axle Trucks	0	12.6	10.7	5.9	0	5.6	5.4	4.8	4.9	5.6

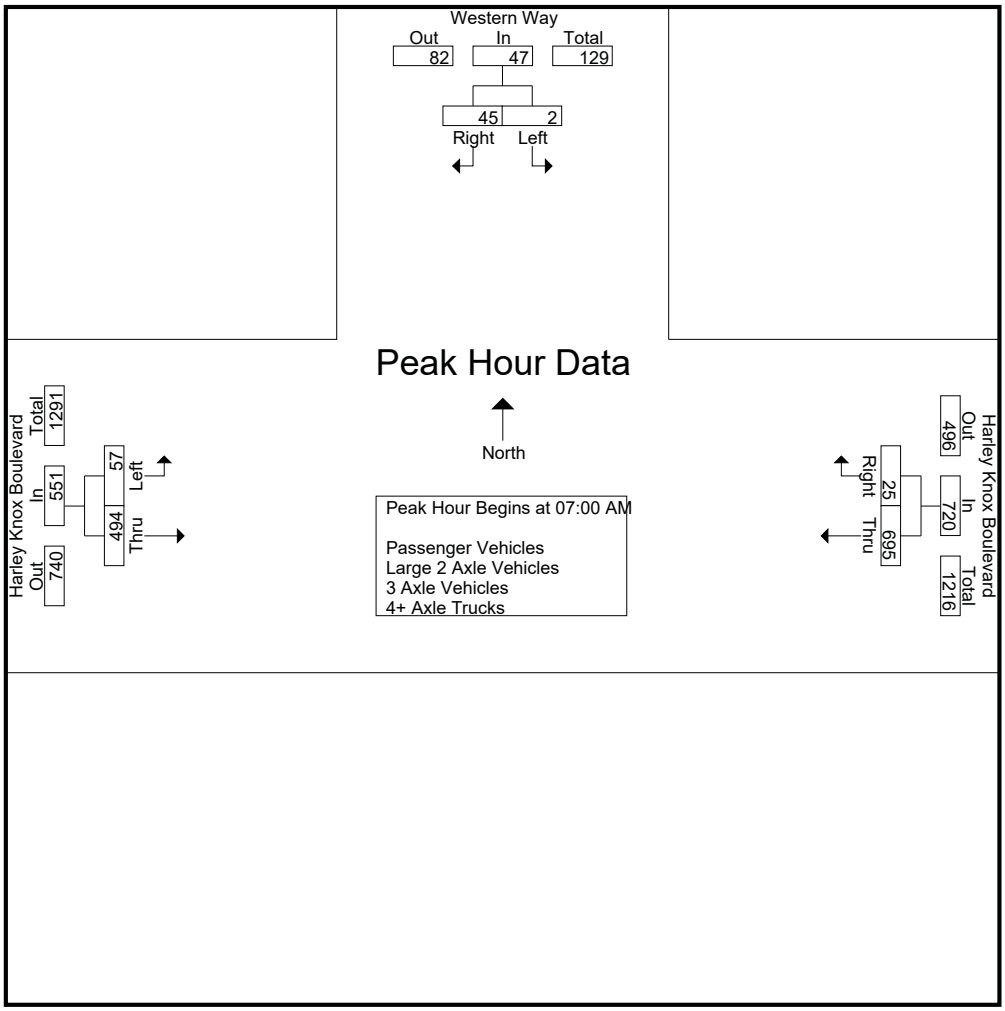
	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**1**	**13**	**14**	**248**	**9**	**257**	**19**	113	132	**403**
07:15 AM	0	10	10	157	1	158	12	106	118	286
07:30 AM	1	11	12	163	8	171	14	130	144	327
07:45 AM	0	11	11	127	7	134	12	**145**	**157**	302
Total Volume	2	45	47	695	25	720	57	494	551	1318
% App. Total	4.3	95.7		96.5	3.5		10.3	89.7		
PHF	.500	.865	.839	.701	.694	.700	.750	.852	.877	.818

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWEHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			07:00 AM			07:00 AM		
+0 mins.	2	10	12	**248**	**9**	**257**	**19**	113	132
+15 mins.	**6**	**14**	**20**	157	1	158	12	106	118
+30 mins.	3	14	17	163	8	171	14	130	144
+45 mins.	4	12	16	127	7	134	12	**145**	**157**
Total Volume	15	50	65	695	25	720	57	494	551
% App. Total	23.1	76.9		96.5	3.5		10.3	89.7	
PHF	.625	.893	.813	.701	.694	.700	.750	.852	.877

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWEHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	1	8	9	238	8	246	17	103	120	375
07:15 AM	0	6	6	152	1	153	11	91	102	261
07:30 AM	1	9	10	144	8	152	11	123	134	296
07:45 AM	0	5	5	117	6	123	11	133	144	272
Total	2	28	30	651	23	674	50	450	500	1204
08:00 AM	2	9	11	76	8	84	24	84	108	203
08:15 AM	5	11	16	75	8	83	12	59	71	170
08:30 AM	2	11	13	47	4	51	17	44	61	125
08:45 AM	4	8	12	49	5	54	10	47	57	123
Total	13	39	52	247	25	272	63	234	297	621
Grand Total	15	67	82	898	48	946	113	684	797	1825
Apprch %	18.3	81.7		94.9	5.1		14.2	85.8		
Total %	0.8	3.7	4.5	49.2	2.6	51.8	6.2	37.5	43.7	

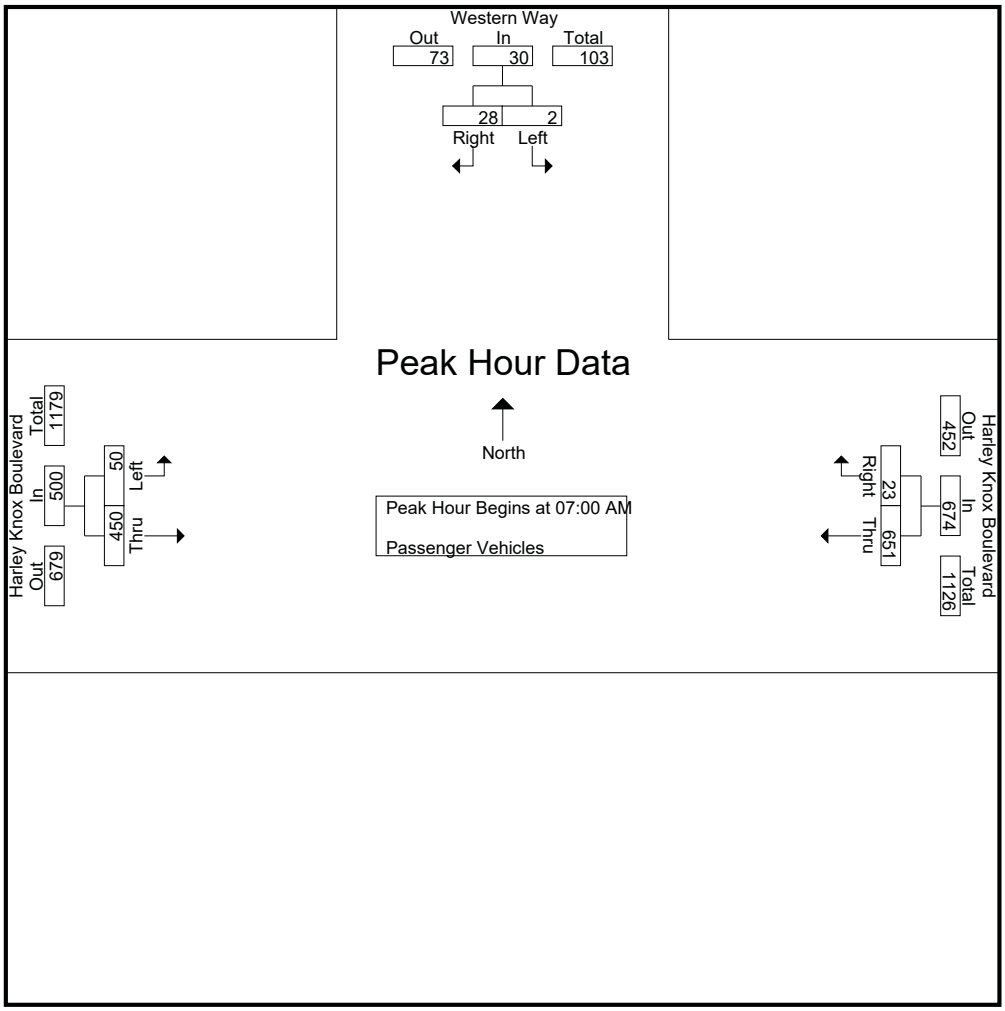
	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**1**	8	9	**238**	**8**	**246**	**17**	103	120	**375**
07:15 AM	0	6	6	152	1	153	11	91	102	261
07:30 AM	1	**9**	**10**	144	8	152	11	123	134	296
07:45 AM	0	5	5	117	6	123	11	**133**	**144**	272
Total Volume	2	28	30	651	23	674	50	450	500	1204
% App. Total	6.7	93.3		96.6	3.4		10	90		
PHF	.500	.778	.750	.684	.719	.685	.735	.846	.868	.803

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWEHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	**1**	8	9	**238**	**8**	**246**	**17**	103	120
+15 mins.	0	6	6	152	1	153	11	91	102
+30 mins.	1	**9**	**10**	144	8	152	11	123	134
+45 mins.	0	5	5	117	6	123	11	**133**	**144**
Total Volume	2	28	30	651	23	674	50	450	500
% App. Total	6.7	93.3		96.6	3.4		10	90	
PHF	.500	.778	.750	.684	.719	.685	.735	.846	.868

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWEHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	2	2	2	1	3	1	2	3	8
07:15 AM	0	1	1	1	0	1	0	8	8	10
07:30 AM	0	1	1	2	0	2	0	3	3	6
07:45 AM	0	2	2	2	1	3	0	3	3	8
Total	0	6	6	7	2	9	1	16	17	32
08:00 AM	0	0	0	2	2	4	1	2	3	7
08:15 AM	1	2	3	4	0	4	1	3	4	11
08:30 AM	1	1	2	5	0	5	3	1	4	11
08:45 AM	0	2	2	3	0	3	1	6	7	12
Total	2	5	7	14	2	16	6	12	18	41
Grand Total	2	11	13	21	4	25	7	28	35	73
Apprch %	15.4	84.6		84	16		20	80		
Total %	2.7	15.1	17.8	28.8	5.5	34.2	9.6	38.4	47.9	

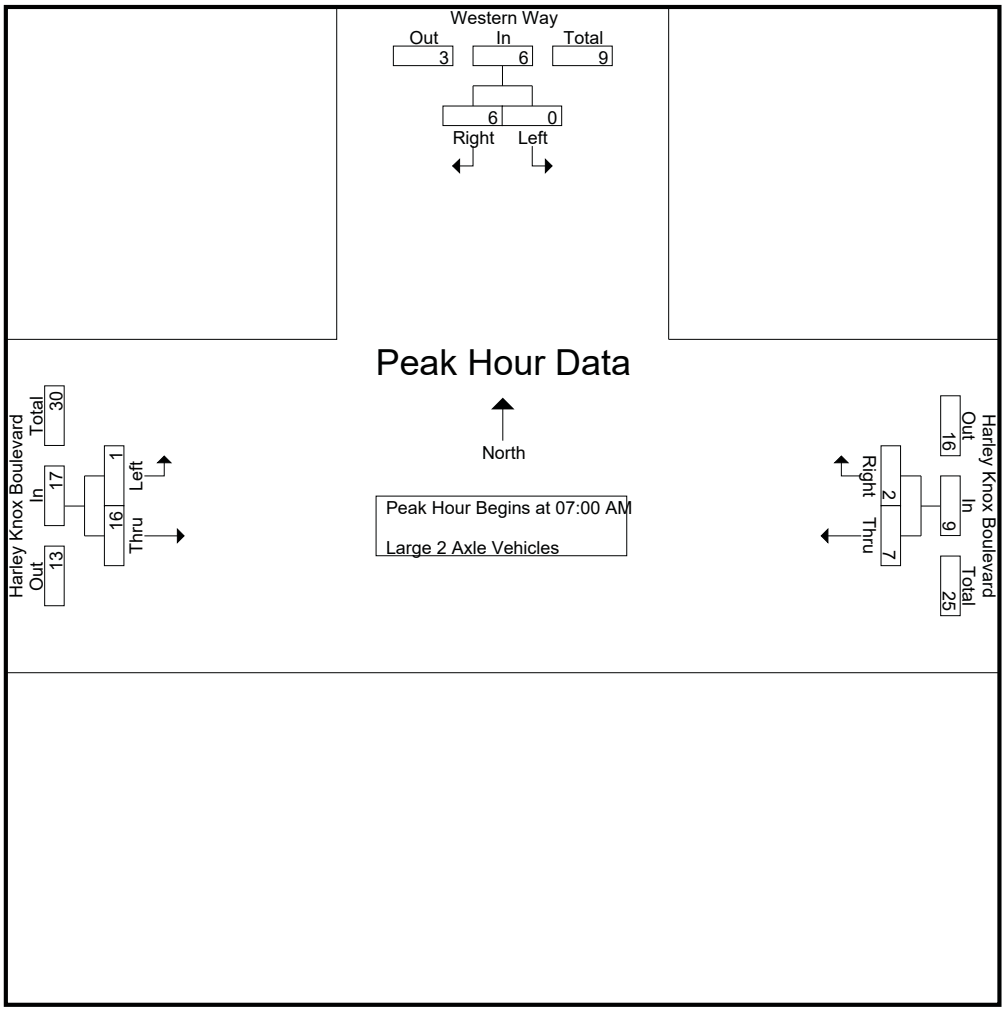
	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**2**	**2**	**2**	**1**	**3**	**1**	2	3	8
07:15 AM	0	1	1	1	0	1	0	**8**	**8**	**10**
07:30 AM	0	1	1	2	0	2	0	3	3	6
07:45 AM	0	2	2	2	1	3	0	3	3	8
Total Volume	0	6	6	7	2	9	1	16	17	32
% App. Total	0	100		77.8	22.2		5.9	94.1		
PHF	.000	.750	.750	.875	.500	.750	.250	.500	.531	.800

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWEHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**2**	**2**	**2**	**1**	**3**	**1**	2	3
+15 mins.	0	1	1	1	0	1	0	**8**	**8**
+30 mins.	0	1	1	2	0	2	0	3	3
+45 mins.	0	2	2	2	1	3	0	3	3
Total Volume	0	6	6	7	2	9	1	16	17
% App. Total	0	100		77.8	22.2		5.9	94.1	
PHF	.000	.750	.750	.875	.500	.750	.250	.500	.531

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWEHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	2	0	2	1	3	4	6
07:15 AM	0	1	1	1	0	1	0	0	0	2
07:30 AM	0	0	0	4	0	4	1	2	3	7
07:45 AM	0	1	1	2	0	2	0	4	4	7
Total	0	2	2	9	0	9	2	9	11	22
08:00 AM	0	0	0	1	0	1	0	2	2	3
08:15 AM	0	0	0	3	0	3	0	2	2	5
08:30 AM	0	1	1	3	0	3	0	2	2	6
08:45 AM	0	2	2	3	1	4	0	6	6	12
Total	0	3	3	10	1	11	0	12	12	26
Grand Total	0	5	5	19	1	20	2	21	23	48
Apprch %	0	100		95	5		8.7	91.3		
Total %	0	10.4	10.4	39.6	2.1	41.7	4.2	43.8	47.9	

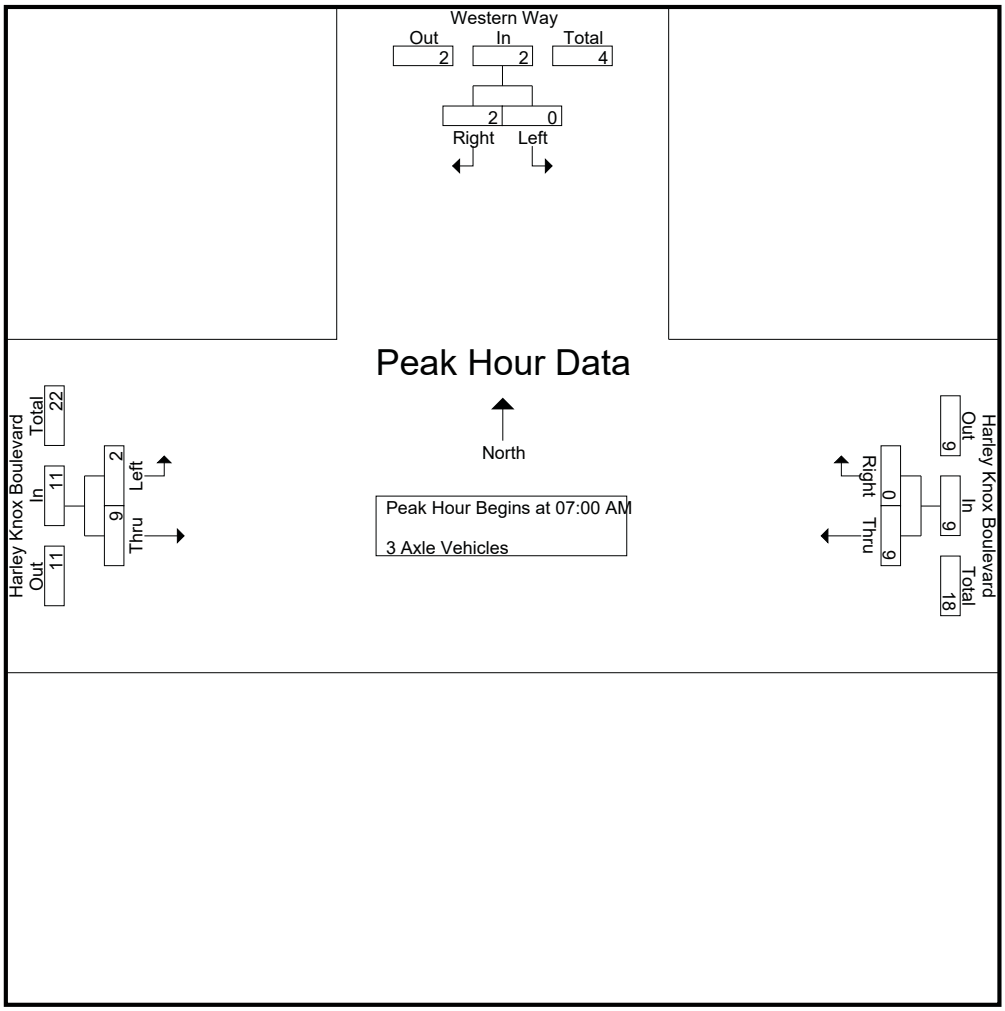
	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	2	0	2	**1**	3	**4**	6
07:15 AM	0	**1**	**1**	1	0	1	0	0	0	2
07:30 AM	0	0	0	**4**	0	**4**	1	2	3	**7**
07:45 AM	0	1	1	2	0	2	0	**4**	4	7
Total Volume	0	2	2	9	0	9	2	9	11	22
% App. Total	0	100		100	0		18.2	81.8		
PHF	.000	.500	.500	.563	.000	.563	.500	.563	.688	.786

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWEHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	2	0	2	**1**	3	**4**
+15 mins.	0	**1**	**1**	1	0	1	0	0	0
+30 mins.	0	0	0	**4**	0	**4**	1	2	3
+45 mins.	0	1	1	2	0	2	0	**4**	4
Total Volume	0	2	2	9	0	9	2	9	11
% App. Total	0	100		100	0		18.2	81.8	
PHF	.000	.500	.500	.563	.000	.563	.500	.563	.688

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWEHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	3	3	6	0	6	0	5	5	14
07:15 AM	0	2	2	3	0	3	1	7	8	13
07:30 AM	0	1	1	13	0	13	2	2	4	18
07:45 AM	0	3	3	6	0	6	1	5	6	15
Total	0	9	9	28	0	28	4	19	23	60
08:00 AM	0	1	1	10	0	10	2	6	8	19
08:15 AM	0	1	1	10	0	10	0	2	2	13
08:30 AM	0	1	1	6	0	6	1	6	7	14
08:45 AM	0	0	0	5	0	5	0	4	4	9
Total	0	3	3	31	0	31	3	18	21	55
Grand Total	0	12	12	59	0	59	7	37	44	115
Apprch %	0	100		100	0		15.9	84.1		
Total %	0	10.4	10.4	51.3	0	51.3	6.1	32.2	38.3	

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**3**	**3**	6	0	6	0	5	5	14
07:15 AM	0	2	2	3	0	3	1	**7**	**8**	13
07:30 AM	0	1	1	**13**	0	**13**	**2**	2	4	**18**
07:45 AM	0	3	3	6	0	6	1	5	6	15
Total Volume	0	9	9	28	0	28	4	19	23	60
% App. Total	0	100		100	0		17.4	82.6		
PHF	.000	.750	.750	.538	.000	.538	.500	.679	.719	.833

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
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City of Perris
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWEHAAM
Site Code : 05115699
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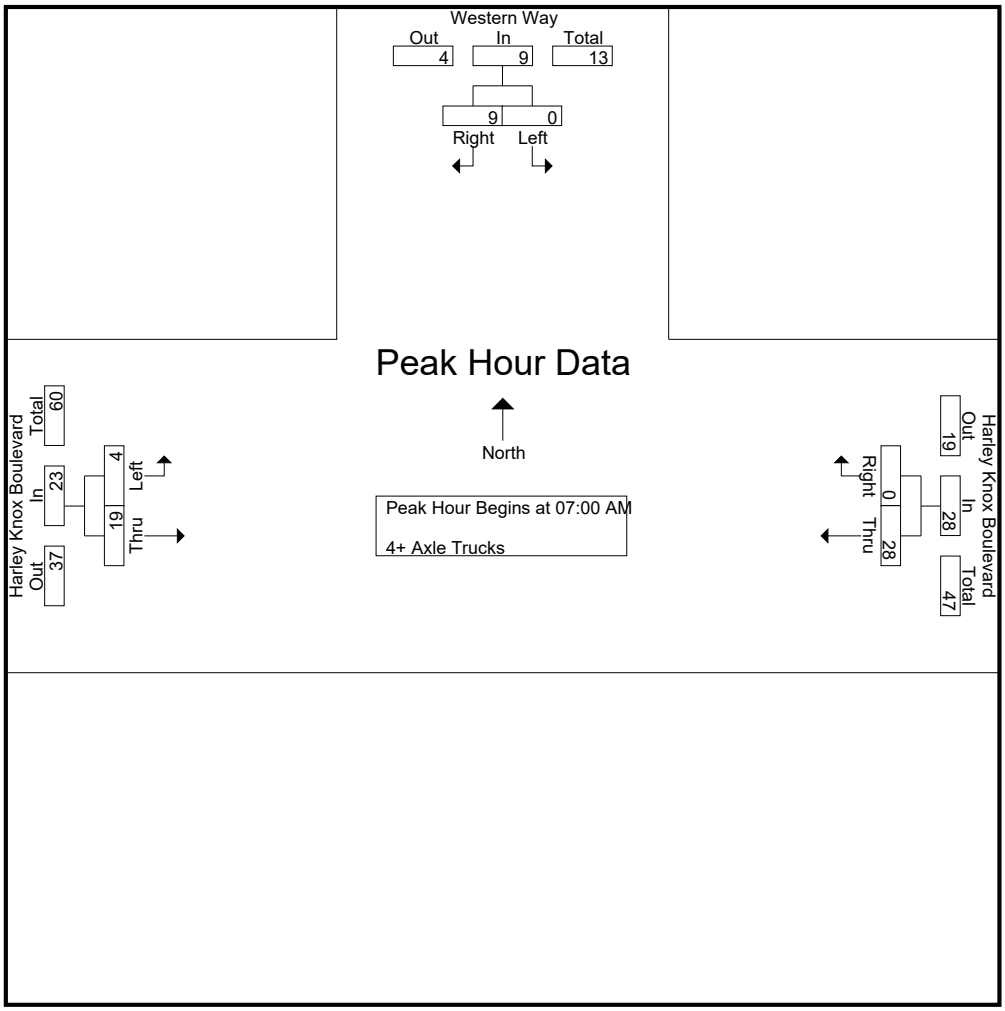

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**3**	**3**	6	0	6	0	5	5
+15 mins.	0	2	2	3	0	3	1	**7**	**8**
+30 mins.	0	1	1	**13**	0	**13**	**2**	2	4
+45 mins.	0	3	3	6	0	6	1	5	6
Total Volume	0	9	9	28	0	28	4	19	23
% App. Total	0	100		100	0		17.4	82.6	
PHF	.000	.750	.750	.538	.000	.538	.500	.679	.719

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City of Perris
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Site Code : 05115699
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	6	18	24	133	2	135	2	114	116	275
04:15 PM	7	22	29	100	2	102	6	141	147	278
04:30 PM	1	24	25	177	0	177	5	163	168	370
04:45 PM	4	20	24	206	1	207	1	134	135	366
Total	18	84	102	616	5	621	14	552	566	1289
05:00 PM	2	17	19	150	3	153	4	110	114	286
05:15 PM	3	18	21	85	1	86	0	106	106	213
05:30 PM	1	14	15	132	1	133	1	159	160	308
05:45 PM	1	13	14	141	0	141	0	170	170	325
Total	7	62	69	508	5	513	5	545	550	1132
Grand Total	25	146	171	1124	10	1134	19	1097	1116	2421
Apprch %	14.6	85.4		99.1	0.9		1.7	98.3		
Total %	1	6	7.1	46.4	0.4	46.8	0.8	45.3	46.1	
Passenger Vehicles	25	142	167	1038	10	1048	12	1023	1035	2250
% Passenger Vehicles	100	97.3	97.7	92.3	100	92.4	63.2	93.3	92.7	92.9
Large 2 Axle Vehicles	0	3	3	14	0	14	4	11	15	32
% Large 2 Axle Vehicles	0	2.1	1.8	1.2	0	1.2	21.1	1	1.3	1.3
3 Axle Vehicles	0	0	0	12	0	12	1	29	30	42
% 3 Axle Vehicles	0	0	0	1.1	0	1.1	5.3	2.6	2.7	1.7
4+ Axle Trucks	0	1	1	60	0	60	2	34	36	97
% 4+ Axle Trucks	0	0.7	0.6	5.3	0	5.3	10.5	3.1	3.2	4

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**7**	22	**29**	100	2	102	**6**	141	147	278
04:30 PM	1	**24**	25	177	0	177	5	**163**	**168**	**370**
04:45 PM	4	20	24	**206**	1	**207**	1	134	135	366
05:00 PM	2	17	19	150	**3**	153	4	110	114	286
Total Volume	14	83	97	633	6	639	16	548	564	1300
% App. Total	14.4	85.6		99.1	0.9		2.8	97.2		
PHF	.500	.865	.836	.768	.500	.772	.667	.840	.839	.878

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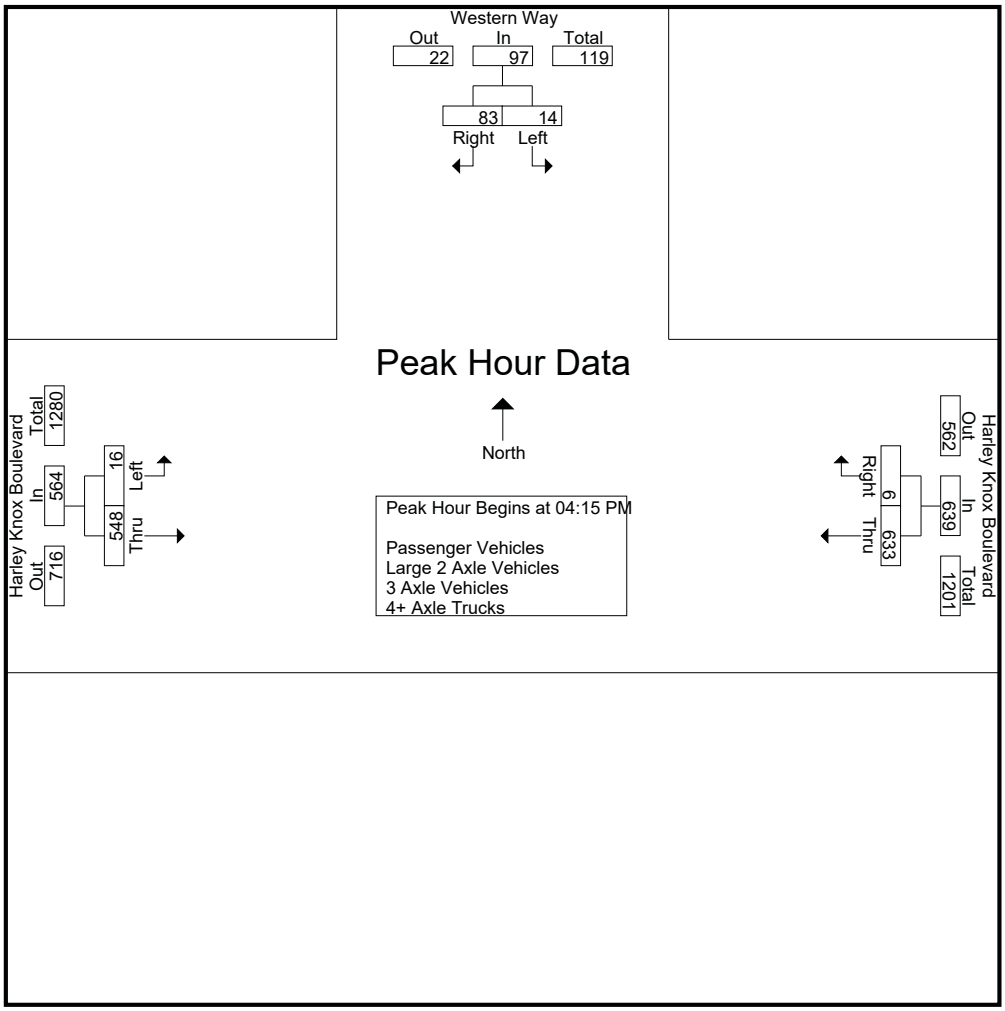

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:15 PM			04:00 PM		
+0 mins.	6	18	24	100	2	102	2	114	116
+15 mins.	**7**	22	**29**	177	0	177	**6**	141	147
+30 mins.	1	**24**	25	**206**	1	**207**	5	**163**	**168**
+45 mins.	4	20	24	150	**3**	153	1	134	135
Total Volume	18	84	102	633	6	639	14	552	566
% App. Total	17.6	82.4		99.1	0.9		2.5	97.5	
PHF	.643	.875	.879	.768	.500	.772	.583	.847	.842

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Groups Printed- Passenger Vehicles

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	6	18	24	124	2	126	0	106	106	256
04:15 PM	7	20	27	84	2	86	5	132	137	250
04:30 PM	1	23	24	160	0	160	3	149	152	336
04:45 PM	4	20	24	193	1	194	0	120	120	338
Total	18	81	99	561	5	566	8	507	515	1180
05:00 PM	2	17	19	137	3	140	3	98	101	260
05:15 PM	3	18	21	80	1	81	0	97	97	199
05:30 PM	1	14	15	128	1	129	1	155	156	300
05:45 PM	1	12	13	132	0	132	0	166	166	311
Total	7	61	68	477	5	482	4	516	520	1070
Grand Total	25	142	167	1038	10	1048	12	1023	1035	2250
Apprch %	15	85		99	1		1.2	98.8		
Total %	1.1	6.3	7.4	46.1	0.4	46.6	0.5	45.5	46	

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**7**	20	**27**	84	2	86	**5**	132	137	250
04:30 PM	1	**23**	24	160	0	160	3	**149**	**152**	336
04:45 PM	4	20	24	**193**	1	**194**	0	120	120	**338**
05:00 PM	2	17	19	137	**3**	140	3	98	101	260
Total Volume	14	80	94	574	6	580	11	499	510	1184
% App. Total	14.9	85.1		99	1		2.2	97.8		
PHF	.500	.870	.870	.744	.500	.747	.550	.837	.839	.876

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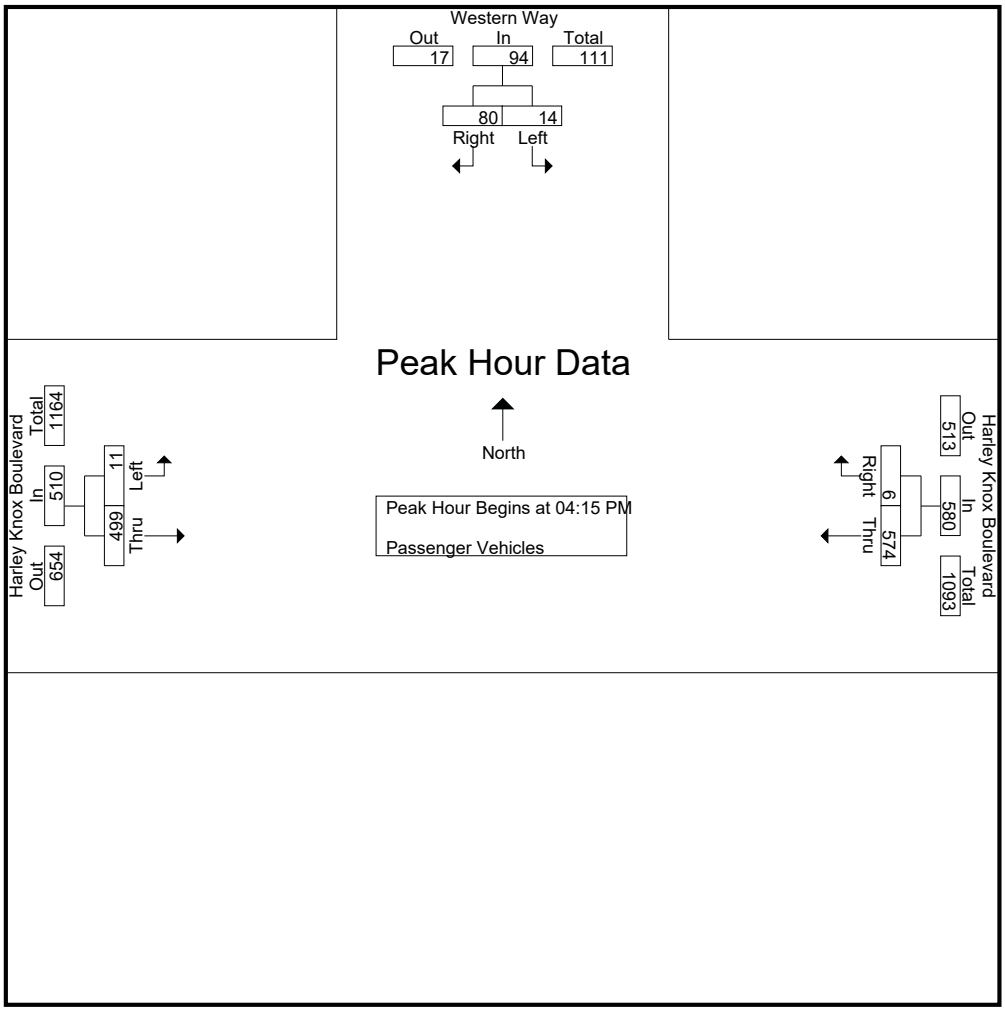

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	**7**	20	**27**	84	2	86	**5**	132	137
+15 mins.	1	**23**	24	160	0	160	3	**149**	**152**
+30 mins.	4	20	24	**193**	1	**194**	0	120	120
+45 mins.	2	17	19	137	**3**	140	3	98	101
Total Volume	14	80	94	574	6	580	11	499	510
% App. Total	14.9	85.1		99	1		2.2	97.8	
PHF	.500	.870	.870	.744	.500	.747	.550	.837	.839

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City of Perris
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Groups Printed- Large 2 Axle Vehicles

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	2	0	2	0	4	4	6
04:15 PM	0	2	2	1	0	1	1	2	3	6
04:30 PM	0	1	1	2	0	2	1	2	3	6
04:45 PM	0	0	0	5	0	5	1	0	1	6
Total	0	3	3	10	0	10	3	8	11	24
05:00 PM	0	0	0	2	0	2	1	0	1	3
05:15 PM	0	0	0	1	0	1	0	1	1	2
05:30 PM	0	0	0	1	0	1	0	1	1	2
05:45 PM	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	4	0	4	1	3	4	8
Grand Total	0	3	3	14	0	14	4	11	15	32
Apprch %	0	100		100	0		26.7	73.3		
Total %	0	9.4	9.4	43.8	0	43.8	12.5	34.4	46.9	

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	**2**	**2**	1	0	1	**1**	**2**	**3**	**6**
04:30 PM	0	1	1	2	0	2	1	2	3	6
04:45 PM	0	0	0	**5**	0	**5**	1	0	1	6
05:00 PM	0	0	0	2	0	2	1	0	1	3
Total Volume	0	3	3	10	0	10	4	4	8	21
% App. Total	0	100		100	0		50	50		
PHF	.000	.375	.375	.500	.000	.500	1.00	.500	.667	.875

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File Name : PERWEHAPM
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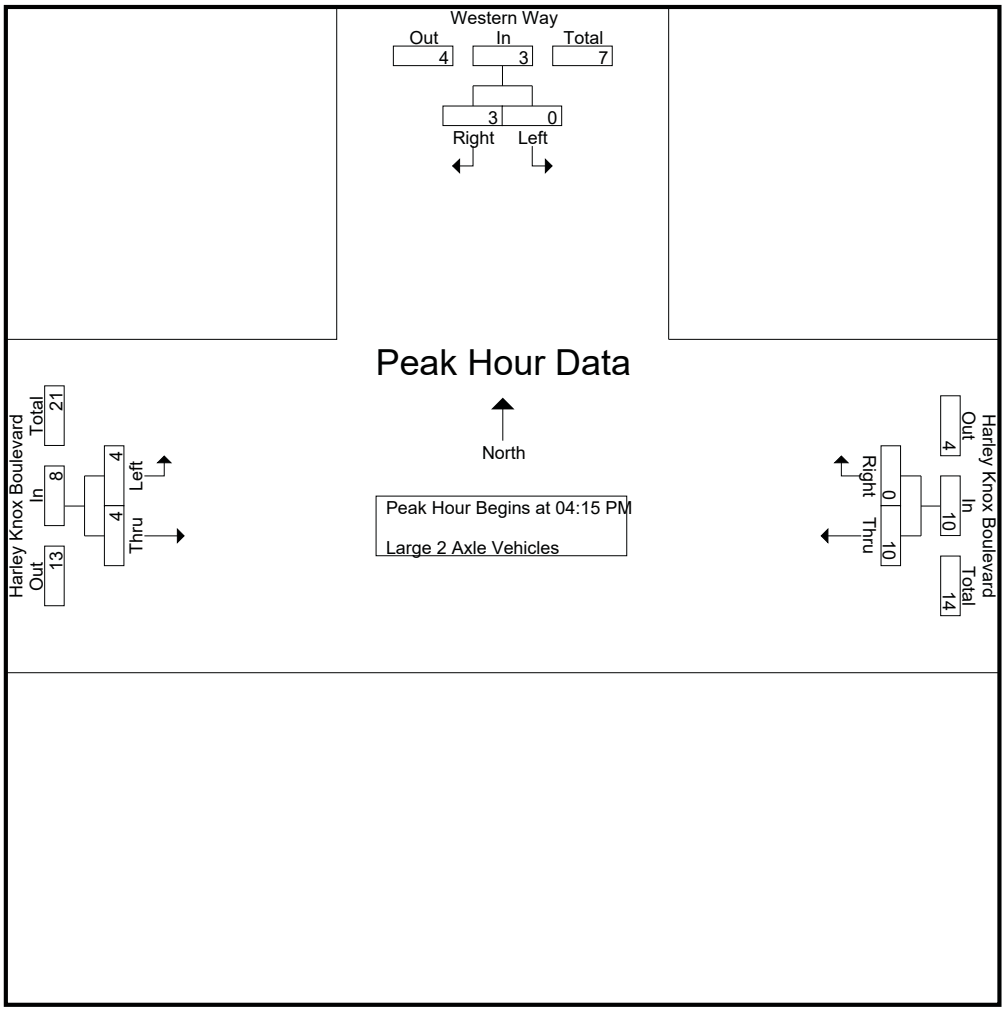

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	**2**	**2**	1	0	1	**1**	**2**	**3**
+15 mins.	0	1	1	2	0	2	1	2	3
+30 mins.	0	0	0	**5**	0	**5**	1	0	1
+45 mins.	0	0	0	2	0	2	1	0	1
Total Volume	0	3	3	10	0	10	4	4	8
% App. Total	0	100		100	0		50	50	
PHF	.000	.375	.375	.500	.000	.500	1.000	.500	.667

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Groups Printed- 3 Axle Vehicles

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	1	0	1	1	3	4	5
04:15 PM	0	0	0	2	0	2	0	2	2	4
04:30 PM	0	0	0	2	0	2	0	7	7	9
04:45 PM	0	0	0	1	0	1	0	5	5	6
Total	0	0	0	6	0	6	1	17	18	24
05:00 PM	0	0	0	4	0	4	0	6	6	10
05:15 PM	0	0	0	0	0	0	0	5	5	5
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	2	0	2	0	1	1	3
Total	0	0	0	6	0	6	0	12	12	18
Grand Total	0	0	0	12	0	12	1	29	30	42
Apprch %	0	0		100	0		3.3	96.7		
Total %	0	0	0	28.6	0	28.6	2.4	69	71.4	

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	2	0	2	0	2	2	4
04:30 PM	0	0	0	2	0	2	0	**7**	**7**	9
04:45 PM	0	0	0	1	0	1	0	5	5	6
05:00 PM	0	0	0	**4**	0	**4**	0	6	6	**10**
Total Volume	0	0	0	9	0	9	0	20	20	29
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.563	.000	.563	.000	.714	.714	.725

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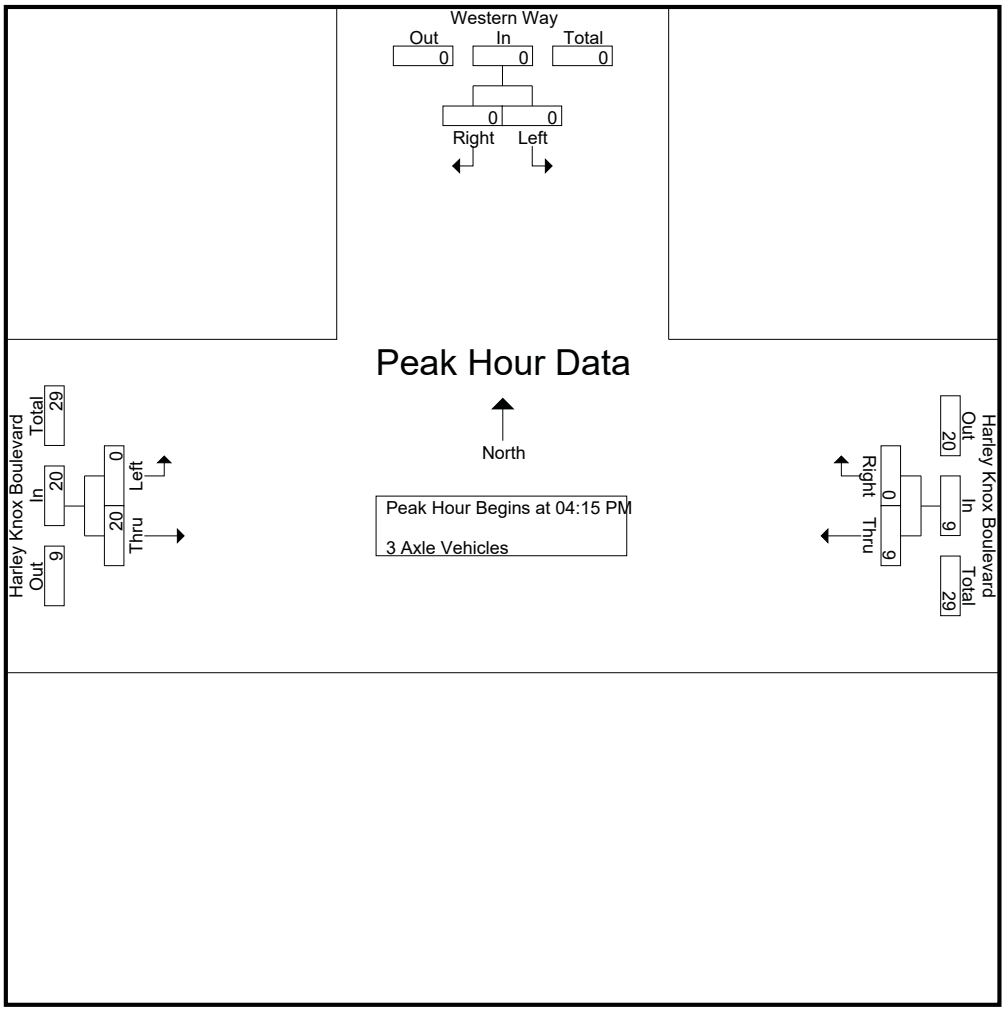

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	2	0	2	0	2	2
+15 mins.	0	0	0	2	0	2	0	**7**	**7**
+30 mins.	0	0	0	1	0	1	0	5	5
+45 mins.	0	0	0	**4**	0	**4**	0	6	6
Total Volume	0	0	0	9	0	9	0	20	20
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.563	.000	.563	.000	.714	.714

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Groups Printed- 4+ Axle Trucks

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	6	0	6	1	1	2	8
04:15 PM	0	0	0	13	0	13	0	5	5	18
04:30 PM	0	0	0	13	0	13	1	5	6	19
04:45 PM	0	0	0	7	0	7	0	9	9	16
Total	0	0	0	39	0	39	2	20	22	61
05:00 PM	0	0	0	7	0	7	0	6	6	13
05:15 PM	0	0	0	4	0	4	0	3	3	7
05:30 PM	0	0	0	3	0	3	0	3	3	6
05:45 PM	0	1	1	7	0	7	0	2	2	10
Total	0	1	1	21	0	21	0	14	14	36
Grand Total	0	1	1	60	0	60	2	34	36	97
Apprch %	0	100		100	0		5.6	94.4		
Total %	0	1	1	61.9	0	61.9	2.1	35.1	37.1	

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	**13**	0	**13**	0	5	5	18
04:30 PM	0	0	0	13	0	13	**1**	5	6	**19**
04:45 PM	0	0	0	7	0	7	0	**9**	**9**	16
05:00 PM	0	0	0	7	0	7	0	6	6	13
Total Volume	0	0	0	40	0	40	1	25	26	66
% App. Total	0	0		100	0		3.8	96.2		
PHF	.000	.000	.000	.769	.000	.769	.250	.694	.722	.868

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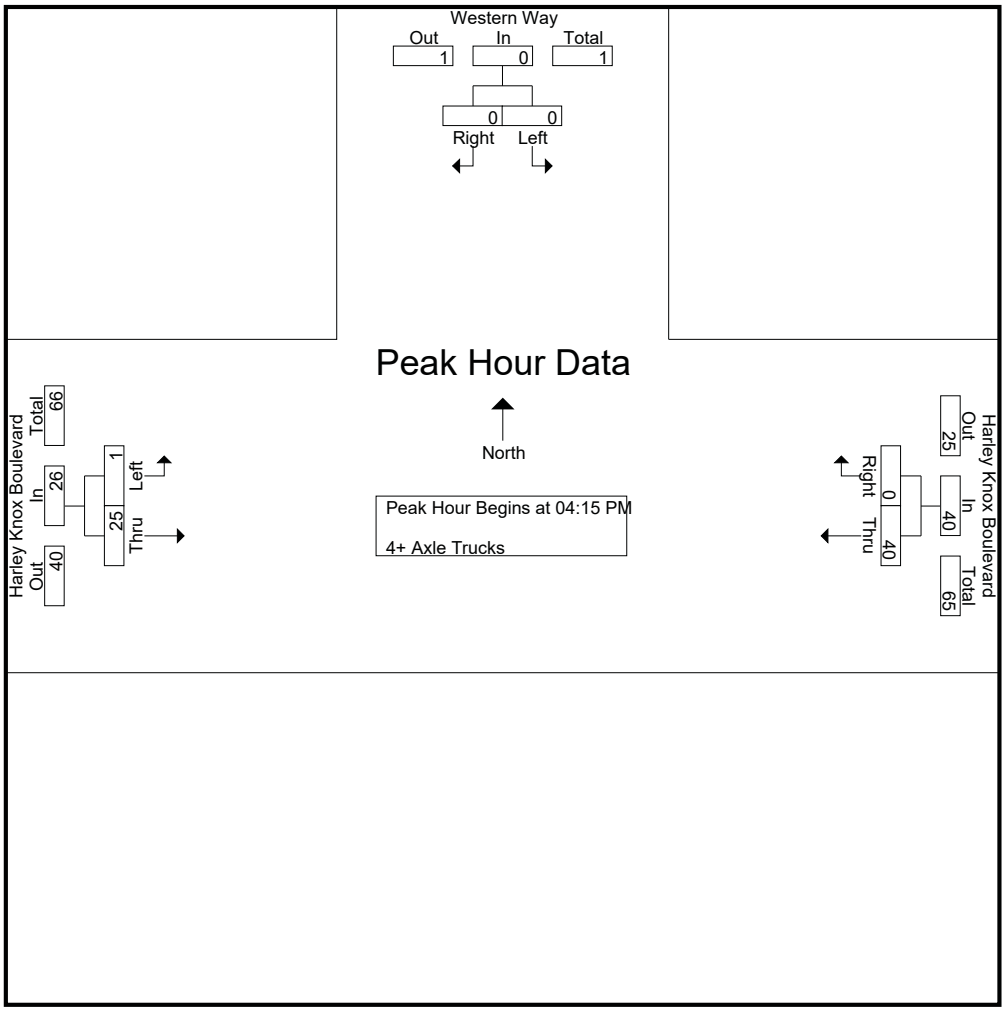


Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	**13**	0	**13**	0	5	5
+15 mins.	0	0	0	13	0	13	**1**	5	6
+30 mins.	0	0	0	7	0	7	0	**9**	**9**
+45 mins.	0	0	0	7	0	7	0	6	6
Total Volume	0	0	0	40	0	40	1	25	26
% App. Total	0	0		100	0		3.8	96.2	
PHF	.000	.000	.000	.769	.000	.769	.250	.694	.722

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Location: Perris
N/S: Western Way
E/W: Harley Knox Boulevard

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

PEDESTRIANS

	North Leg Western Way	East Leg Harley Knox Boulevard	South Leg Western Way	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Western Way	East Leg Harley Knox Boulevard	South Leg Western Way	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Location: Perris
N/S: Western Way
E/W: Harley Knox Boulevard

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

BICYCLES

	North Leg Western Way	East Leg Harley Knox Boulevard	South Leg Western Way	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Western Way	East Leg Harley Knox Boulevard	South Leg Western Way	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Patterson Avenue Southbound					Harley Knox Boulevard Westbound					Patterson Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	1	0	1	0	238	5	0	243	17	2	1	1	20	3	108	2	0	113	1	377	378
07:15 AM	2	2	0	0	4	0	138	2	0	140	22	0	2	2	24	1	104	2	0	107	2	275	277
07:30 AM	0	1	2	1	3	1	139	1	0	141	25	0	0	0	25	1	129	1	1	131	2	300	302
07:45 AM	0	0	2	1	2	0	121	2	0	123	13	0	2	1	15	1	138	5	1	144	3	284	287
Total	2	3	5	2	10	1	636	10	0	647	77	2	5	4	84	6	479	10	2	495	8	1236	1244
08:00 AM	1	0	2	0	3	0	95	3	0	98	17	0	2	2	19	5	99	4	0	108	2	228	230
08:15 AM	2	0	2	0	4	1	81	0	0	82	9	0	0	0	9	0	72	5	1	77	1	172	173
08:30 AM	1	3	1	0	5	0	61	1	0	62	4	1	0	0	5	3	66	4	1	73	1	145	146
08:45 AM	1	0	0	0	1	1	65	0	0	66	3	1	0	0	4	1	62	5	0	68	0	139	139
Total	5	3	5	0	13	2	302	4	0	308	33	2	2	2	37	9	299	18	2	326	4	684	688
Grand Total	7	6	10	2	23	3	938	14	0	955	110	4	7	6	121	15	778	28	4	821	12	1920	1932
Apprch %	30.4	26.1	43.5			0.3	98.2	1.5			90.9	3.3	5.8			1.8	94.8	3.4					
Total %	0.4	0.3	0.5		1.2	0.2	48.9	0.7		49.7	5.7	0.2	0.4		6.3	0.8	40.5	1.5		42.8	0.6	99.4	
Passenger Vehicles	4	5	6		16	3	822	10		835	107	4	6		122	11	667	21		702	0	0	1675
% Passenger Vehicles	57.1	83.3	60	50	64	100	87.6	71.4	0	87.4	97.3	100	85.7	83.3	96.1	73.3	85.7	75	75	85.1	0	0	86.7
Large 2 Axle Vehicles	0	0	2		2	0	25	1		26	1	0	0		1	2	28	5		36	0	0	65
% Large 2 Axle Vehicles	0	0	20	0	8	0	2.7	7.1	0	2.7	0.9	0	0	0	0.8	13.3	3.6	17.9	25	4.4	0	0	3.4
3 Axle Vehicles	2	1	1		5	0	24	2		26	2	0	1		4	0	25	2		27	0	0	62
% 3 Axle Vehicles	28.6	16.7	10	50	20	0	2.6	14.3	0	2.7	1.8	0	14.3	16.7	3.1	0	3.2	7.1	0	3.3	0	0	3.2
4+ Axle Trucks	1	0	1		2	0	67	1		68	0	0	0		0	2	58	0		60	0	0	130
% 4+ Axle Trucks	14.3	0	10	0	8	0	7.1	7.1	0	7.1	0	0	0	0	0	13.3	7.5	0	0	7.3	0	0	6.7

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	1	1	0	**238**	**5**	**243**	17	**2**	1	20	**3**	108	2	113	**377**
07:15 AM	**2**	**2**	0	**4**	0	138	2	140	22	0	**2**	24	1	104	2	107	275
07:30 AM	0	1	**2**	3	**1**	139	1	141	**25**	0	0	**25**	1	129	1	131	300
07:45 AM	0	0	2	2	0	121	2	123	13	0	2	15	1	**138**	**5**	**144**	284
Total Volume	2	3	5	10	1	636	10	647	77	2	5	84	6	479	10	495	1236
% App. Total	20	30	50		0.2	98.3	1.5		91.7	2.4	6		1.2	96.8	2		
PHF	.250	.375	.625	.625	.250	.668	.500	.666	.770	.250	.625	.840	.500	.868	.500	.859	.820

Packet Pg. 1632

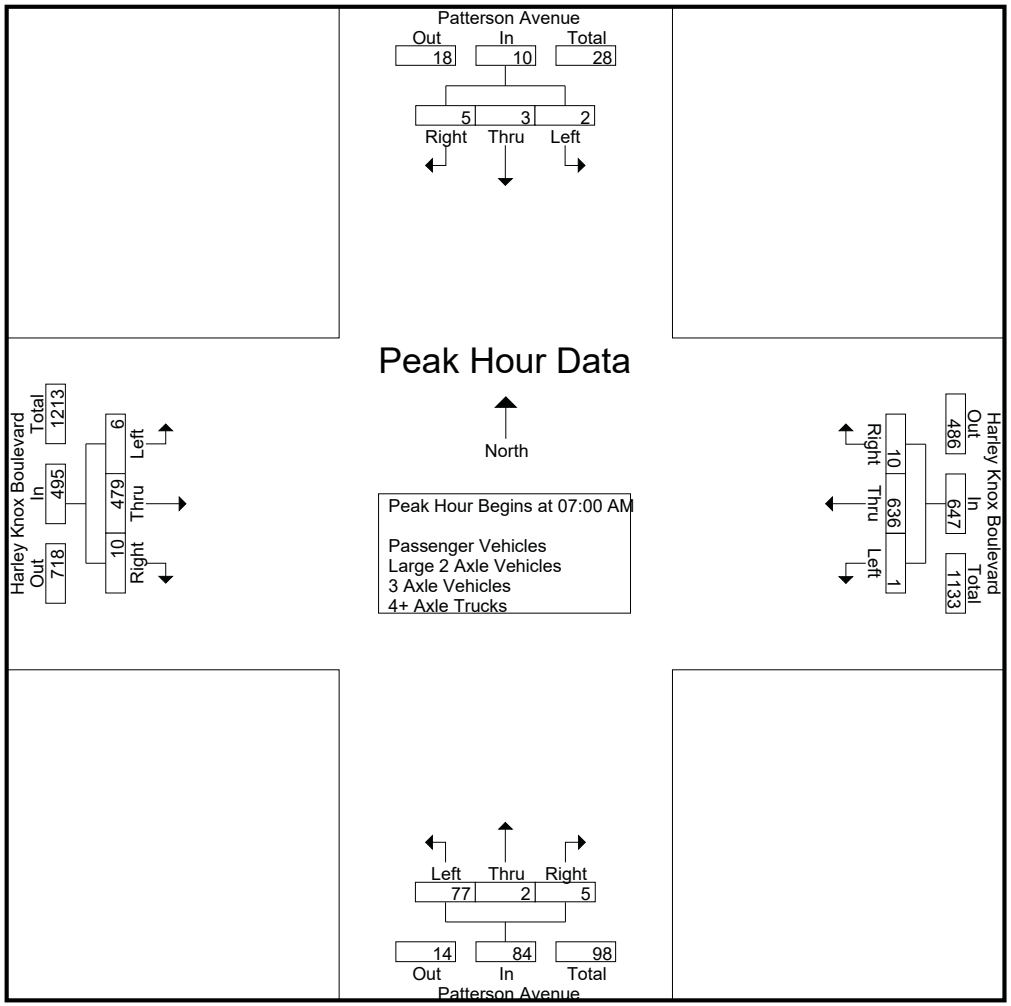
E.2.p

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1633

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:45 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	**2**	2	0	**238**	**5**	**243**	17	**2**	1	20	**3**	108	2	113	
+15 mins.	1	0	2	3	0	138	2	140	22	0	**2**	24	1	104	2	107	
+30 mins.	**2**	0	2	4	**1**	139	1	141	**25**	0	0	**25**	1	129	1	131	
+45 mins.	1	**3**	1	**5**	0	121	2	123	13	0	2	15	1	**138**	**5**	**144**	
Total Volume	4	3	7	14	1	636	10	647	77	2	5	84	6	479	10	495	
% App. Total	28.6	21.4	50		0.2	98.3	1.5		91.7	2.4	6		1.2	96.8	2		
PHF	.500	.250	.875	.700	.250	.668	.500	.666	.770	.250	.625	.840	.500	.868	.500	.859	

Packet Pg. 1634

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles

	Patterson Avenue Southbound					Harley Knox Boulevard Westbound					Patterson Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	1	0	1	0	230	4	0	234	15	2	1	1	18	3	93	2	0	98	1	351	352
07:15 AM	1	1	0	0	2	0	127	1	0	128	22	0	1	1	23	0	89	1	0	90	1	243	244
07:30 AM	0	1	2	1	3	1	122	0	0	123	25	0	0	0	25	0	116	1	1	117	2	268	270
07:45 AM	0	0	1	0	1	0	108	2	0	110	13	0	2	1	15	0	129	4	1	133	2	259	261
Total	1	2	4	1	7	1	587	7	0	595	75	2	4	3	81	3	427	8	2	438	6	1121	1127
08:00 AM	1	0	0	0	1	0	74	2	0	76	16	0	2	2	18	5	85	3	0	93	2	188	190
08:15 AM	0	0	1	0	1	1	66	0	0	67	9	0	0	0	9	0	60	4	1	64	1	141	142
08:30 AM	1	3	1	0	5	0	46	1	0	47	4	1	0	0	5	2	49	2	0	53	0	110	110
08:45 AM	1	0	0	0	1	1	49	0	0	50	3	1	0	0	4	1	46	4	0	51	0	106	106
Total	3	3	2	0	8	2	235	3	0	240	32	2	2	2	36	8	240	13	1	261	3	545	548
Grand Total	4	5	6	1	15	3	822	10	0	835	107	4	6	5	117	11	667	21	3	699	9	1666	1675
Apprch %	26.7	33.3	40			0.4	98.4	1.2			91.5	3.4	5.1			1.6	95.4	3					
Total %	0.2	0.3	0.4		0.9	0.2	49.3	0.6		50.1	6.4	0.2	0.4		7	0.7	40	1.3		42	0.5	99.5	

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	1	1	0	**230**	**4**	**234**	15	**2**	1	18	**3**	93	2	98	**351**
07:15 AM	**1**	**1**	0	2	0	127	1	128	22	0	1	23	0	89	1	90	243
07:30 AM	0	1	**2**	**3**	**1**	122	0	123	**25**	0	0	**25**	0	116	1	117	268
07:45 AM	0	0	1	1	0	108	2	110	13	0	**2**	15	0	**129**	**4**	**133**	259
Total Volume	1	2	4	7	1	587	7	595	75	2	4	81	3	427	8	438	1121
% App. Total	14.3	28.6	57.1		0.2	98.7	1.2		92.6	2.5	4.9		0.7	97.5	1.8		
PHF	.250	.500	.500	.583	.250	.638	.438	.636	.750	.250	.500	.810	.250	.828	.500	.823	.798

Packet Pg. 1635

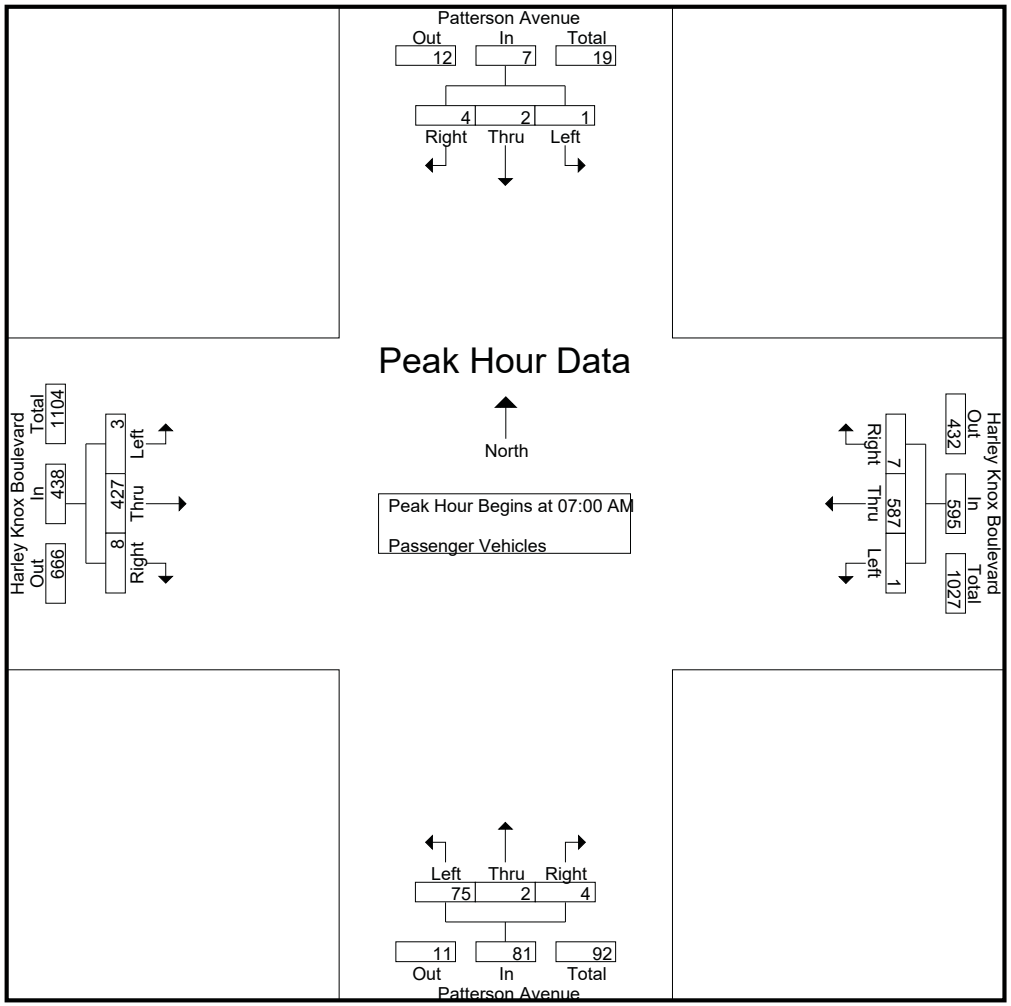
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	1	1	0	**230**	**4**	**234**	15	**2**	1	18	**3**	93	2	98	
+15 mins.	**1**	**1**	0	2	0	127	1	128	22	0	1	23	0	89	1	90	
+30 mins.	0	1	**2**	**3**	**1**	122	0	123	**25**	0	0	**25**	0	116	1	117	
+45 mins.	0	0	1	1	0	108	2	110	13	0	**2**	15	0	**129**	**4**	**133**	
Total Volume	1	2	4	7	1	587	7	595	75	2	4	81	3	427	8	438	
% App. Total	14.3	28.6	57.1		0.2	98.7	1.2		92.6	2.5	4.9		0.7	97.5	1.8		
PHF	.250	.500	.500	.583	.250	.638	.438	.636	.750	.250	.500	.810	.250	.828	.500	.823	

Packet Pg. 1637

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Patterson Avenue Southbound					Harley Knox Boulevard Westbound					Patterson Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	3	0	0	3	0	5	5
07:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	4	1	0	6	0	7	7
07:30 AM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	1	4	0	0	5	0	9	9
07:45 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	2	1	0	3	0	9	9
Total	0	0	0	0	0	0	11	1	0	12	1	0	0	0	1	2	13	2	0	17	0	30	30
08:00 AM	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	3	1	0	4	0	8	8
08:15 AM	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	0	2	1	0	3	0	9	9
08:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	6	1	1	7	1	10	11
08:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	0	7	7
Total	0	0	2	0	2	0	14	0	0	14	0	0	0	0	0	0	15	3	1	18	1	34	35
Grand Total	0	0	2	0	2	0	25	1	0	26	1	0	0	0	1	2	28	5	1	35	1	64	65
Apprch %	0	0	100			0	96.2	3.8			100	0	0			5.7	80	14.3					
Total %	0	0	3.1		3.1	0	39.1	1.6		40.6	1.6	0	0		1.6	3.1	43.8	7.8		54.7	1.5	98.5	

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	1	0	1	**1**	0	0	**1**	0	3	0	3	5
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	**1**	**4**	**1**	**6**	7
07:30 AM	0	0	0	0	0	3	**1**	4	0	0	0	0	1	4	0	5	**9**
07:45 AM	0	0	0	0	0	**6**	0	**6**	0	0	0	0	0	2	1	3	9
Total Volume	0	0	0	0	0	11	1	12	1	0	0	1	2	13	2	17	30
% App. Total	0	0	0		0	91.7	8.3		100	0	0		11.8	76.5	11.8		
PHF	.000	.000	.000	.000	.000	.458	.250	.500	.250	.000	.000	.250	.500	.813	.500	.708	.833

Packet Pg. 1638

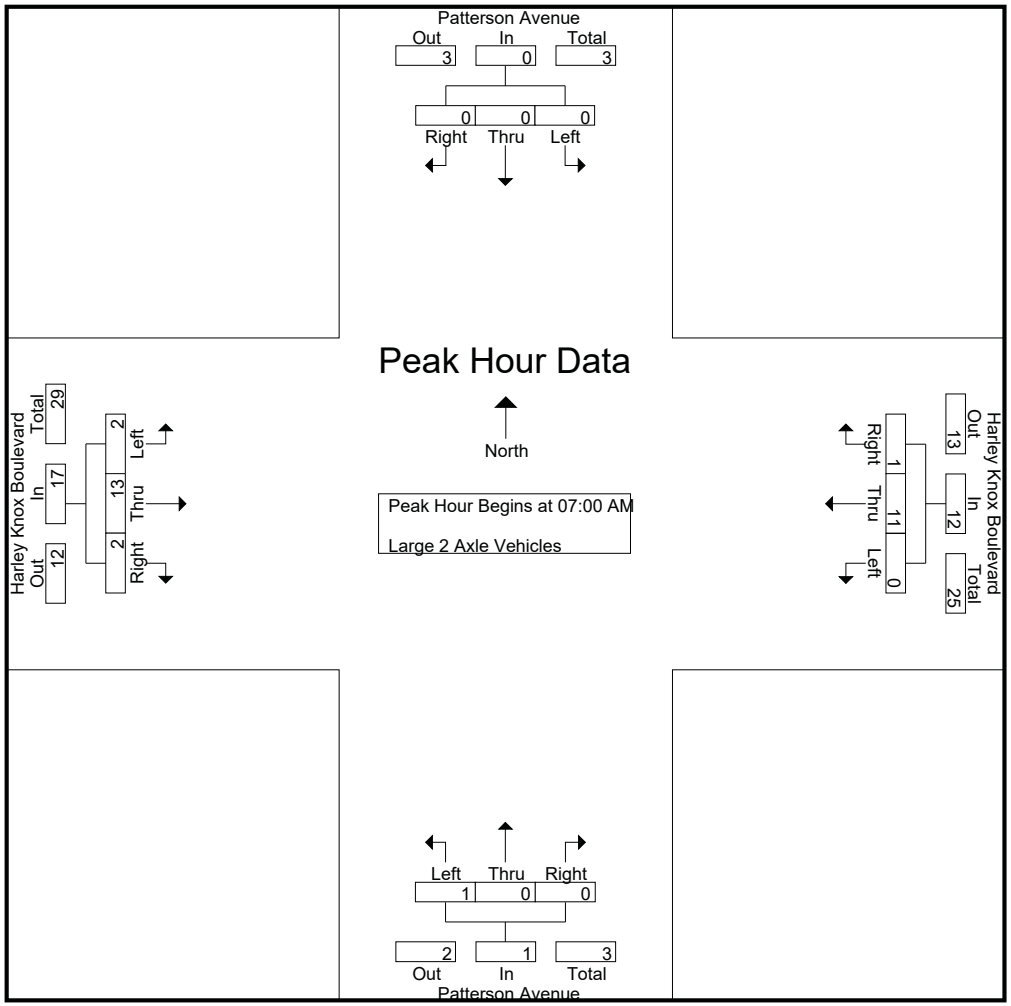
E.2.p

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	1	0	1	**1**	0	0	**1**	0	3	0	3	
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	**1**	**4**	**1**	**6**	
+30 mins.	0	0	0	0	0	3	**1**	4	0	0	0	0	1	4	0	5	
+45 mins.	0	0	0	0	0	**6**	0	**6**	0	0	0	0	0	2	1	3	
Total Volume	0	0	0	0	0	11	1	12	1	0	0	1	2	13	2	17	
% App. Total	0	0	0		0	91.7	8.3		100	0	0		11.8	76.5	11.8		
PHF	.000	.000	.000	.000	.000	.458	.250	.500	.250	.000	.000	.250	.500	.813	.500	.708	

Packet Pg. 1640

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Patterson Avenue Southbound					Harley Knox Boulevard Westbound					Patterson Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	0	4	0	0	4	0	7	7
07:15 AM	1	1	0	0	2	0	3	1	0	4	0	0	1	1	1	0	0	0	0	0	1	7	8
07:30 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	0	8	8
07:45 AM	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	1	5	6
Total	1	1	1	1	3	0	10	1	0	11	1	0	1	1	2	0	11	0	0	11	2	27	29
08:00 AM	0	0	0	0	0	0	2	1	0	3	1	0	0	0	1	0	2	0	0	2	0	6	6
08:15 AM	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	0	9	9
08:30 AM	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	4	1	0	5	0	12	12
08:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	1	0	4	0	6	6
Total	1	0	0	0	1	0	14	1	0	15	1	0	0	0	1	0	14	2	0	16	0	33	33
Grand Total	2	1	1	1	4	0	24	2	0	26	2	0	1	1	3	0	25	2	0	27	2	60	62
Apprch %	50	25	25			0	92.3	7.7			66.7	0	33.3			0	92.6	7.4					
Total %	3.3	1.7	1.7		6.7	0	40	3.3		43.3	3.3	0	1.7		5	0	41.7	3.3		45	3.2	96.8	

3.1-96

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	2	0	2	**1**	0	0	**1**	0	**4**	0	**4**	7
07:15 AM	**1**	**1**	0	**2**	0	3	**1**	**4**	0	0	**1**	1	0	0	0	0	7
07:30 AM	0	0	0	0	0	**4**	0	4	0	0	0	0	0	4	0	4	**8**
07:45 AM	0	0	**1**	1	0	1	0	1	0	0	0	0	0	3	0	3	5
Total Volume	1	1	1	3	0	10	1	11	1	0	1	2	0	11	0	11	27
% App. Total	33.3	33.3	33.3		0	90.9	9.1		50	0	50		0	100	0		
PHF	.250	.250	.250	.375	.000	.625	.250	.688	.250	.000	.250	.500	.000	.688	.000	.688	.844

Packet Pg. 1641

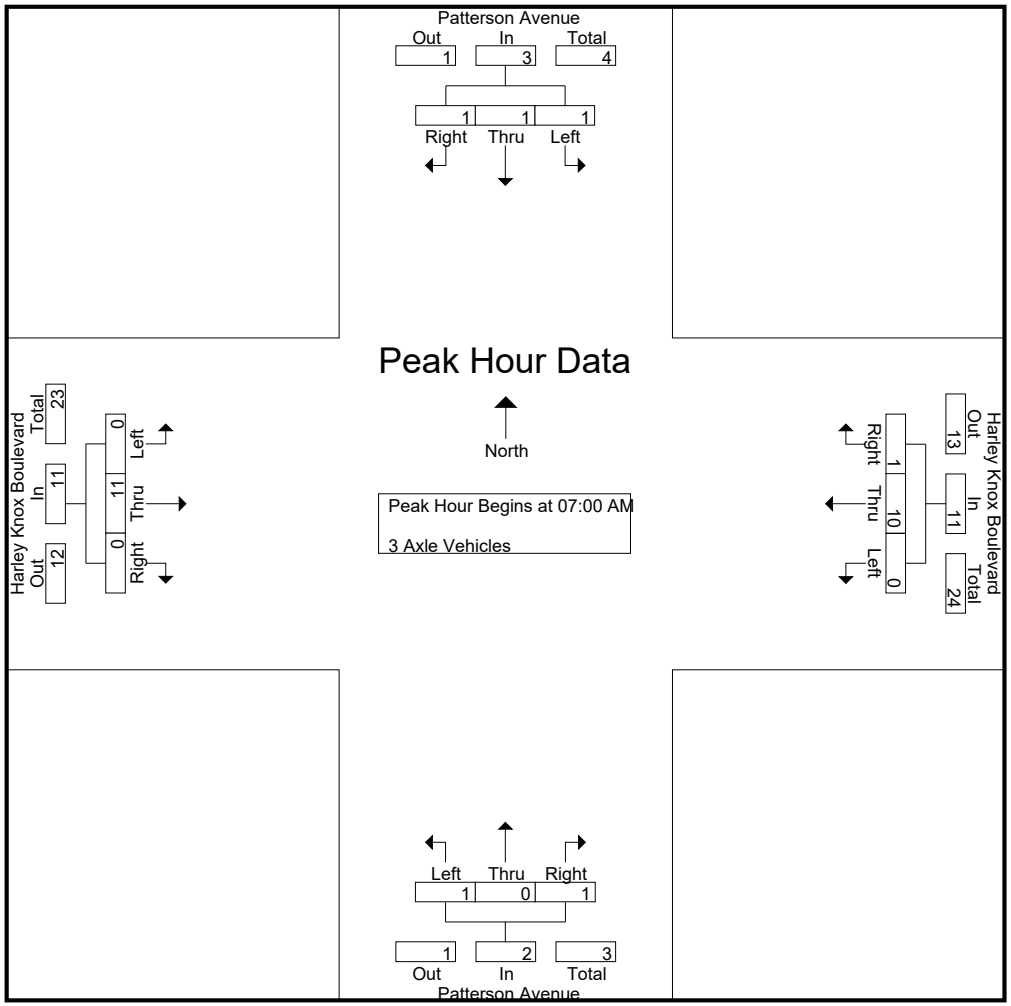
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1642

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	2	0	2	**1**	0	0	**1**	0	**4**	0	**4**	
+15 mins.	**1**	**1**	0	**2**	0	3	**1**	**4**	0	0	**1**	1	0	0	0	0	
+30 mins.	0	0	0	0	0	**4**	0	4	0	0	0	0	0	4	0	4	
+45 mins.	0	0	**1**	1	0	1	0	1	0	0	0	0	0	3	0	3	
Total Volume	1	1	1	3	0	10	1	11	1	0	1	2	0	11	0	11	
% App. Total	33.3	33.3	33.3		0	90.9	9.1		50	0	50		0	100	0		
PHF	.250	.250	.250	.375	.000	.625	.250	.688	.250	.000	.250	.500	.000	.688	.000	.688	

Packet Pg. 1643

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Patterson Avenue Southbound					Harley Knox Boulevard Westbound					Patterson Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	0	8	0	0	8	0	14	14
07:15 AM	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	11	0	0	11	0	18	18
07:30 AM	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	5	0	0	5	0	15	15
07:45 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	1	4	0	0	5	0	11	11
Total	0	0	0	0	0	0	28	1	0	29	0	0	0	0	0	1	28	0	0	29	0	58	58
08:00 AM	0	0	1	0	1	0	16	0	0	16	0	0	0	0	0	0	9	0	0	9	0	26	26
08:15 AM	1	0	0	0	1	0	7	0	0	7	0	0	0	0	0	0	5	0	0	5	0	13	13
08:30 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	1	7	0	0	8	0	13	13
08:45 AM	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	9	0	0	9	0	20	20
Total	1	0	1	0	2	0	39	0	0	39	0	0	0	0	0	1	30	0	0	31	0	72	72
Grand Total	1	0	1	0	2	0	67	1	0	68	0	0	0	0	0	2	58	0	0	60	0	130	130
Apprch %	50	0	50			0	98.5	1.5			0	0	0			3.3	96.7	0					
Total %	0.8	0	0.8		1.5	0	51.5	0.8		52.3	0	0	0		0	1.5	44.6	0		46.2	0	100	

3.1-99

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	5	**1**	6	0	0	0	0	0	8	0	8	14
07:15 AM	0	0	0	0	0	7	0	7	0	0	0	0	0	**11**	0	**11**	**18**
07:30 AM	0	0	0	0	0	**10**	0	**10**	0	0	0	0	0	5	0	5	15
07:45 AM	0	0	0	0	0	6	0	6	0	0	0	0	**1**	4	0	5	11
Total Volume	0	0	0	0	0	28	1	29	0	0	0	0	1	28	0	29	58
% App. Total	0	0	0		0	96.6	3.4		0	0	0		3.4	96.6	0		
PHF	.000	.000	.000	.000	.000	.700	.250	.725	.000	.000	.000	.000	.250	.636	.000	.659	.806

Packet Pg. 1644

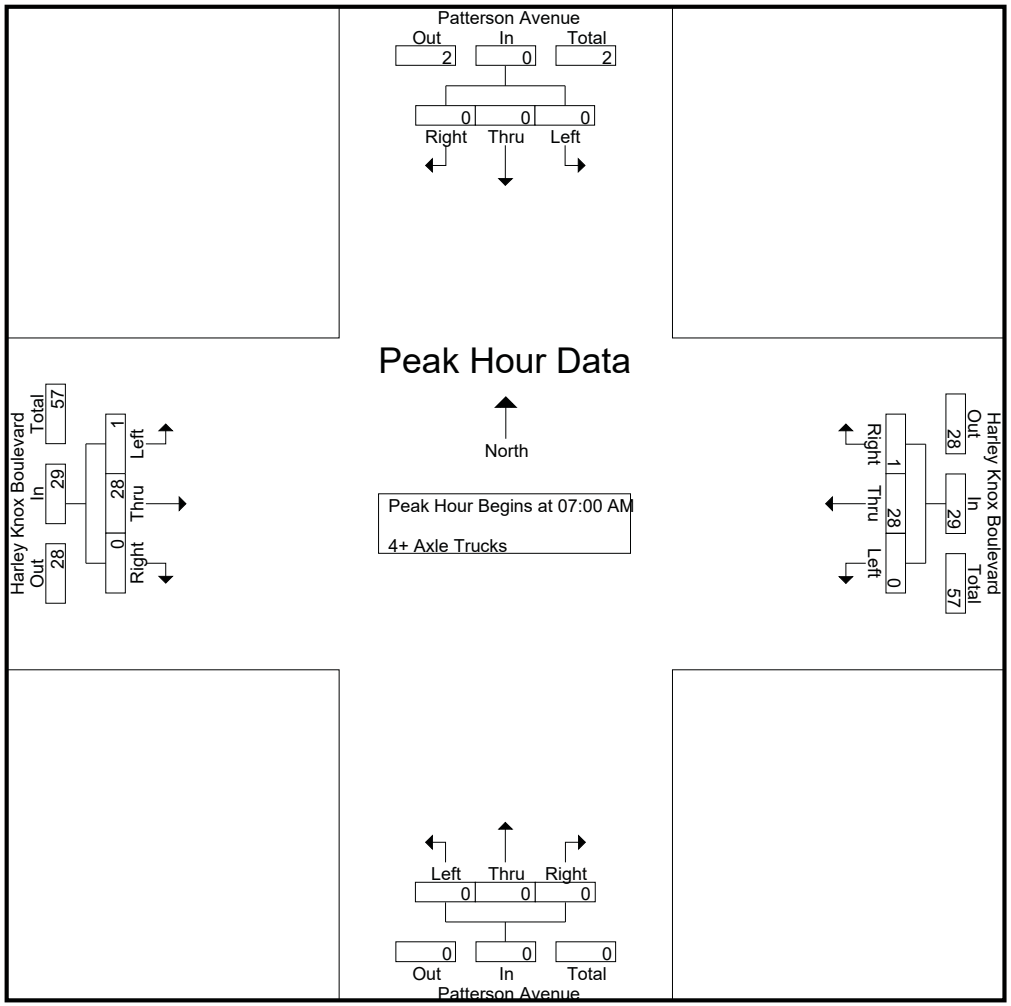
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1645

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	5	**1**	6	0	0	0	0	0	8	0	8	
+15 mins.	0	0	0	0	0	7	0	7	0	0	0	0	0	**11**	0	**11**	
+30 mins.	0	0	0	0	0	**10**	0	**10**	0	0	0	0	0	5	0	5	
+45 mins.	0	0	0	0	0	6	0	6	0	0	0	0	**1**	4	0	5	
Total Volume	0	0	0	0	0	28	1	29	0	0	0	0	1	28	0	29	
% App. Total	0	0	0		0	96.6	3.4		0	0	0		3.4	96.6	0		
PHF	.000	.000	.000	.000	.000	.700	.250	.725	.000	.000	.000	.000	.250	.636	.000	.659	

Packet Pg. 1646

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Patterson Avenue Southbound					Harley Knox Boulevard Westbound					Patterson Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	0	0	1	3	111	0	0	114	9	0	2	1	11	0	112	9	0	121	1	247	248
04:15 PM	1	0	3	2	4	2	93	0	0	95	9	2	3	2	14	1	137	8	0	146	4	259	263
04:30 PM	3	1	5	4	9	0	150	2	0	152	8	0	2	2	10	1	181	3	0	185	6	356	362
04:45 PM	1	0	2	0	3	0	208	0	0	208	5	0	0	0	5	1	121	9	0	131	0	347	347
Total	6	1	10	6	17	5	562	2	0	569	31	2	7	5	40	3	551	29	0	583	11	1209	1220
05:00 PM	1	1	3	0	5	0	119	1	1	120	8	2	1	0	11	0	116	1	0	117	1	253	254
05:15 PM	0	0	0	0	0	1	86	1	0	88	6	0	1	0	7	2	99	14	0	115	0	210	210
05:30 PM	4	0	2	0	6	0	131	0	0	131	6	2	0	0	8	0	145	12	0	157	0	302	302
05:45 PM	1	0	1	0	2	0	139	0	0	139	7	0	2	2	9	0	161	8	0	169	2	319	321
Total	6	1	6	0	13	1	475	2	1	478	27	4	4	2	35	2	521	35	0	558	3	1084	1087
Grand Total	12	2	16	6	30	6	1037	4	1	1047	58	6	11	7	75	5	1072	64	0	1141	14	2293	2307
Apprch %	40	6.7	53.3			0.6	99	0.4			77.3	8	14.7			0.4	94	5.6					
Total %	0.5	0.1	0.7		1.3	0.3	45.2	0.2		45.7	2.5	0.3	0.5		3.3	0.2	46.8	2.8		49.8	0.6	99.4	
Passenger Vehicles	12	2	16		36	6	938	4		949	53	6	11		77	5	967	57		1029	0	0	2091
% Passenger Vehicles	100	100	100	100	100	100	90.5	100	100	90.6	91.4	100	100	100	93.9	100	90.2	89.1	0	90.2	0	0	90.6
Large 2 Axle Vehicles	0	0	0		0	0	8	0		8	3	0	0		3	0	14	6		20	0	0	31
% Large 2 Axle Vehicles	0	0	0	0	0	0	0.8	0	0	0.8	5.2	0	0	0	3.7	0	1.3	9.4	0	1.8	0	0	1.3
3 Axle Vehicles	0	0	0		0	0	17	0		17	0	0	0		0	0	43	0		43	0	0	60
% 3 Axle Vehicles	0	0	0	0	0	0	1.6	0	0	1.6	0	0	0	0	0	0	4	0	0	3.8	0	0	2.6
4+ Axle Trucks	0	0	0		0	0	74	0		74	2	0	0		2	0	48	1		49	0	0	125
% 4+ Axle Trucks	0	0	0	0	0	0	7.1	0	0	7.1	3.4	0	0	0	2.4	0	4.5	1.6	0	4.3	0	0	5.4

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	1	0	3	4	**2**	93	0	95	**9**	**2**	**3**	**14**	**1**	137	8	146	259
04:30 PM	**3**	**1**	**5**	**9**	0	150	**2**	152	8	0	2	10	1	**181**	3	**185**	**356**
04:45 PM	1	0	2	3	0	**208**	0	**208**	5	0	0	5	1	121	**9**	131	347
05:00 PM	1	1	3	5	0	119	1	120	8	2	1	11	0	116	1	117	253
Total Volume	6	2	13	21	2	570	3	575	30	4	6	40	3	555	21	579	1215
% App. Total	28.6	9.5	61.9		0.3	99.1	0.5		75	10	15		0.5	95.9	3.6		
PHF	.500	.500	.650	.583	.250	.685	.375	.691	.833	.500	.500	.714	.750	.767	.583	.782	.853

Packet Pg. 1647

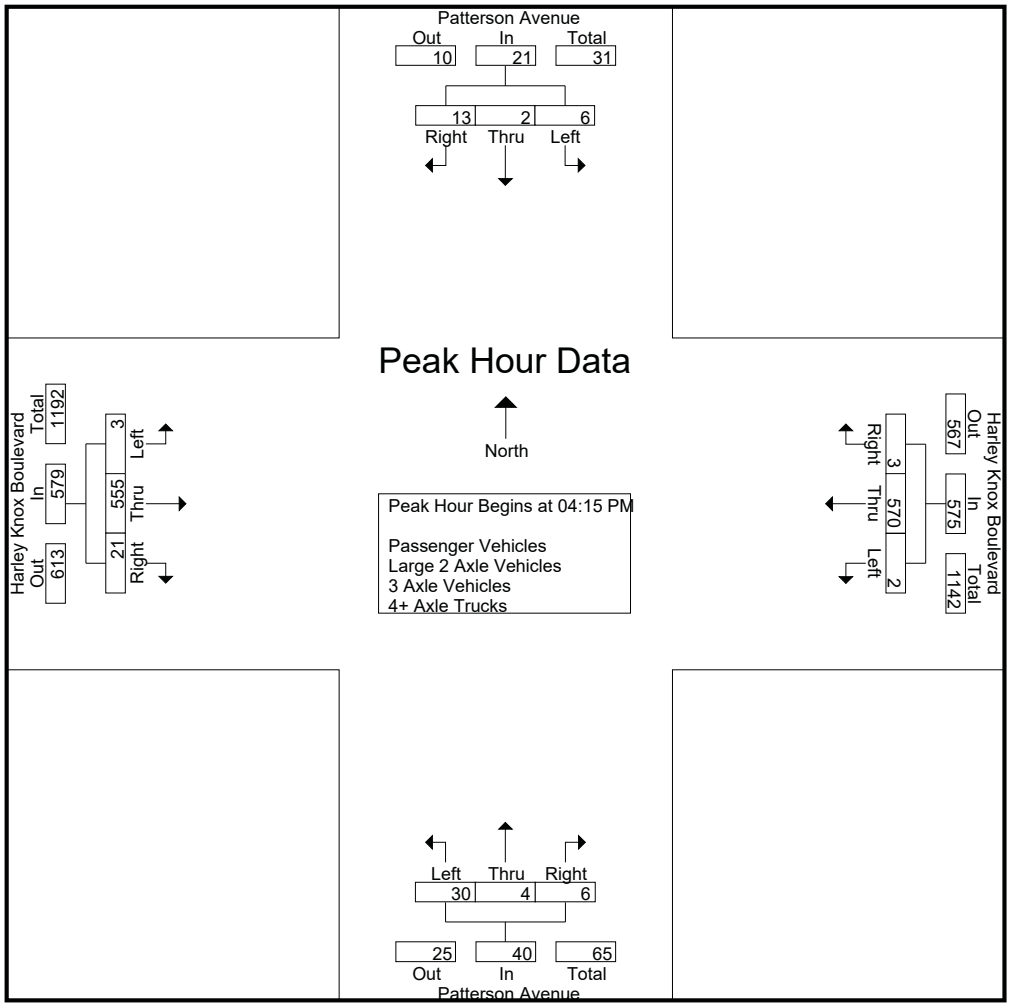
E.2.p

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1648

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:00 PM				04:00 PM				
+0 mins.	1	0	3	4	**2**	93	0	95	**9**	0	2	11	0	112	**9**	121	
+15 mins.	**3**	**1**	**5**	**9**	0	150	**2**	152	9	**2**	**3**	**14**	**1**	137	8	146	
+30 mins.	1	0	2	3	0	**208**	0	**208**	8	0	2	10	1	**181**	3	**185**	
+45 mins.	1	1	3	5	0	119	1	120	5	0	0	5	1	121	9	131	
Total Volume	6	2	13	21	2	570	3	575	31	2	7	40	3	551	29	583	
% App. Total	28.6	9.5	61.9		0.3	99.1	0.5		77.5	5	17.5		0.5	94.5	5		
PHF	.500	.500	.650	.583	.250	.685	.375	.691	.861	.250	.583	.714	.750	.761	.806	.788	

Packet Pg. 1649

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles

	Patterson Avenue Southbound					Harley Knox Boulevard Westbound					Patterson Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	0	0	1	3	101	0	0	104	8	0	2	1	10	0	101	8	0	109	1	224	225
04:15 PM	1	0	3	2	4	2	75	0	0	77	9	2	3	2	14	1	121	7	0	129	4	224	228
04:30 PM	3	1	5	4	9	0	133	2	0	135	6	0	2	2	8	1	157	3	0	161	6	313	319
04:45 PM	1	0	2	0	3	0	193	0	0	193	5	0	0	0	5	1	108	8	0	117	0	318	318
Total	6	1	10	6	17	5	502	2	0	509	28	2	7	5	37	3	487	26	0	516	11	1079	1090
05:00 PM	1	1	3	0	5	0	113	1	1	114	8	2	1	0	11	0	102	1	0	103	1	233	234
05:15 PM	0	0	0	0	0	1	79	1	0	81	5	0	1	0	6	2	91	13	0	106	0	193	193
05:30 PM	4	0	2	0	6	0	116	0	0	116	6	2	0	0	8	0	137	11	0	148	0	278	278
05:45 PM	1	0	1	0	2	0	128	0	0	128	6	0	2	2	8	0	150	6	0	156	2	294	296
Total	6	1	6	0	13	1	436	2	1	439	25	4	4	2	33	2	480	31	0	513	3	998	1001
Grand Total	12	2	16	6	30	6	938	4	1	948	53	6	11	7	70	5	967	57	0	1029	14	2077	2091
Apprch %	40	6.7	53.3			0.6	98.9	0.4			75.7	8.6	15.7			0.5	94	5.5					
Total %	0.6	0.1	0.8		1.4	0.3	45.2	0.2		45.6	2.6	0.3	0.5		3.4	0.2	46.6	2.7		49.5	0.7	99.3	

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	1	0	3	4	**2**	75	0	77	**9**	**2**	**3**	**14**	**1**	121	7	129	224
04:30 PM	**3**	**1**	**5**	**9**	0	133	**2**	135	6	0	2	8	1	**157**	3	**161**	313
04:45 PM	1	0	2	3	0	**193**	0	**193**	5	0	0	5	1	108	**8**	117	**318**
05:00 PM	1	1	3	5	0	113	1	114	8	2	1	11	0	102	1	103	233
Total Volume	6	2	13	21	2	514	3	519	28	4	6	38	3	488	19	510	1088
% App. Total	28.6	9.5	61.9		0.4	99	0.6		73.7	10.5	15.8		0.6	95.7	3.7		
PHF	.500	.500	.650	.583	.250	.666	.375	.672	.778	.500	.500	.679	.750	.777	.594	.792	.855

Packet Pg. 1650

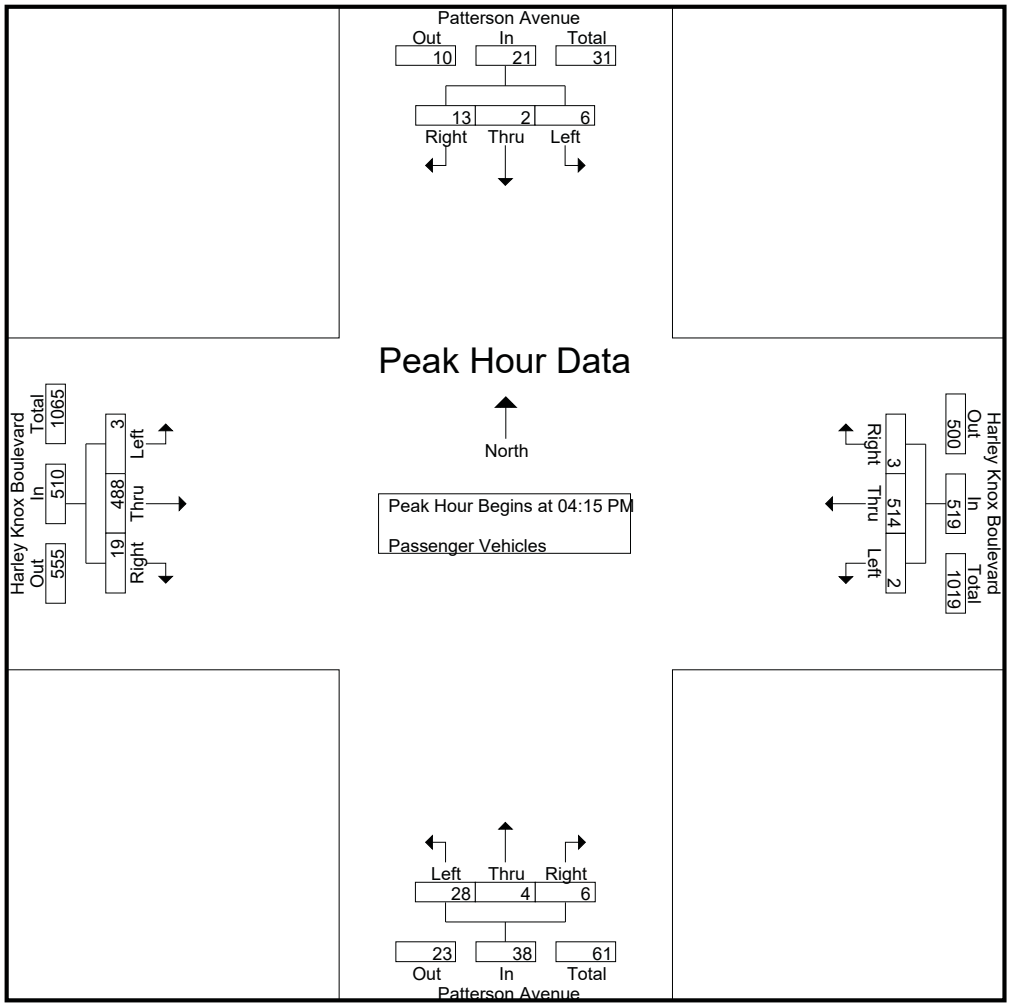
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1651

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	1	0	3	4	**2**	75	0	77	**9**	**2**	**3**	**14**	**1**	121	7	129	
+15 mins.	**3**	**1**	**5**	**9**	0	133	**2**	135	6	0	2	8	1	**157**	3	**161**	
+30 mins.	1	0	2	3	0	**193**	0	**193**	5	0	0	5	1	108	**8**	117	
+45 mins.	1	1	3	5	0	113	1	114	8	2	1	11	0	102	1	103	
Total Volume	6	2	13	21	2	514	3	519	28	4	6	38	3	488	19	510	
% App. Total	28.6	9.5	61.9		0.4	99	0.6		73.7	10.5	15.8		0.6	95.7	3.7		
PHF	.500	.500	.650	.583	.250	.666	.375	.672	.778	.500	.500	.679	.750	.777	.594	.792	

Packet Pg. 1652

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Patterson Avenue Southbound					Harley Knox Boulevard Westbound					Patterson Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	3	1	0	4	0	5	5
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	4	4
04:30 PM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	1	0	0	1	0	5	5
04:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	1	0	1	0	3	3
Total	0	0	0	0	0	0	5	0	0	5	2	0	0	0	2	0	8	2	0	10	0	17	17
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	0	2	2
05:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	0	3	3
05:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	2	0	5	0	7	7
Total	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	6	4	0	10	0	14	14
Grand Total	0	0	0	0	0	0	8	0	0	8	3	0	0	0	3	0	14	6	0	20	0	31	31
Apprch %	0	0	0			0	100	0			100	0	0			0	70	30					
Total %	0	0	0		0	0	25.8	0		25.8	9.7	0	0		9.7	0	45.2	19.4		64.5	0	100	

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**	0	**4**	4
04:30 PM	0	0	0	0	0	**3**	0	**3**	**1**	0	0	**1**	0	1	0	1	**5**
04:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	**1**	1	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Total Volume	0	0	0	0	0	5	0	5	1	0	0	1	0	7	1	8	14
% App. Total	0	0	0		0	100	0		100	0	0		0	87.5	12.5		
PHF	.000	.000	.000	.000	.000	.417	.000	.417	.250	.000	.000	.250	.000	.438	.250	.500	.700

Packet Pg. 1653

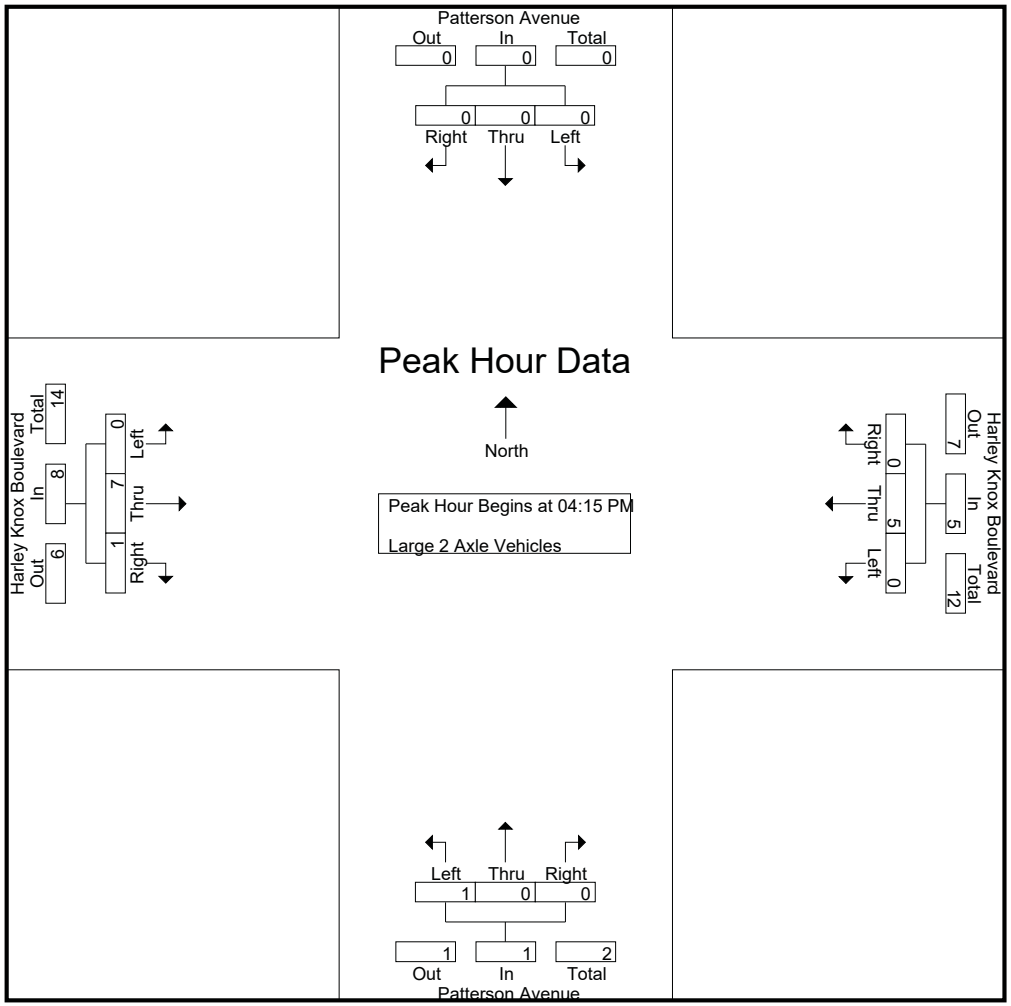
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**	0	**4**	
+15 mins.	0	0	0	0	0	**3**	0	**3**	**1**	0	0	**1**	0	1	0	1	
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	**1**	1	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	
Total Volume	0	0	0	0	0	5	0	5	1	0	0	1	0	7	1	8	
% App. Total	0	0	0		0	100	0		100	0	0		0	87.5	12.5		
PHF	.000	.000	.000	.000	.000	.417	.000	.417	.250	.000	.000	.250	.000	.438	.250	.500	

Packet Pg. 1655

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Patterson Avenue Southbound					Harley Knox Boulevard Westbound					Patterson Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	5	5
04:15 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	0	9	9
04:30 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	10	0	0	10	0	14	14
04:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	5	5
Total	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	22	0	0	22	0	33	33
05:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	9	0	0	9	0	10	10
05:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
05:30 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	7	7
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	7	7
Total	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	21	0	0	21	0	27	27
Grand Total	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	0	43	0	0	43	0	60	60
Apprch %	0	0	0			0	100	0			0	0	0			0	100	0					
Total %	0	0	0		0	0	28.3	0		28.3	0	0	0		0	0	71.7	0		71.7	0	100	

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	6	0	6	9
04:30 PM	0	0	0	0	0	**4**	0	**4**	0	0	0	0	0	**10**	0	**10**	**14**
04:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	9	0	9	10
Total Volume	0	0	0	0	0	10	0	10	0	0	0	0	0	28	0	28	38
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.625	.000	.625	.000	.000	.000	.000	.000	.700	.000	.700	.679

Packet Pg. 1656

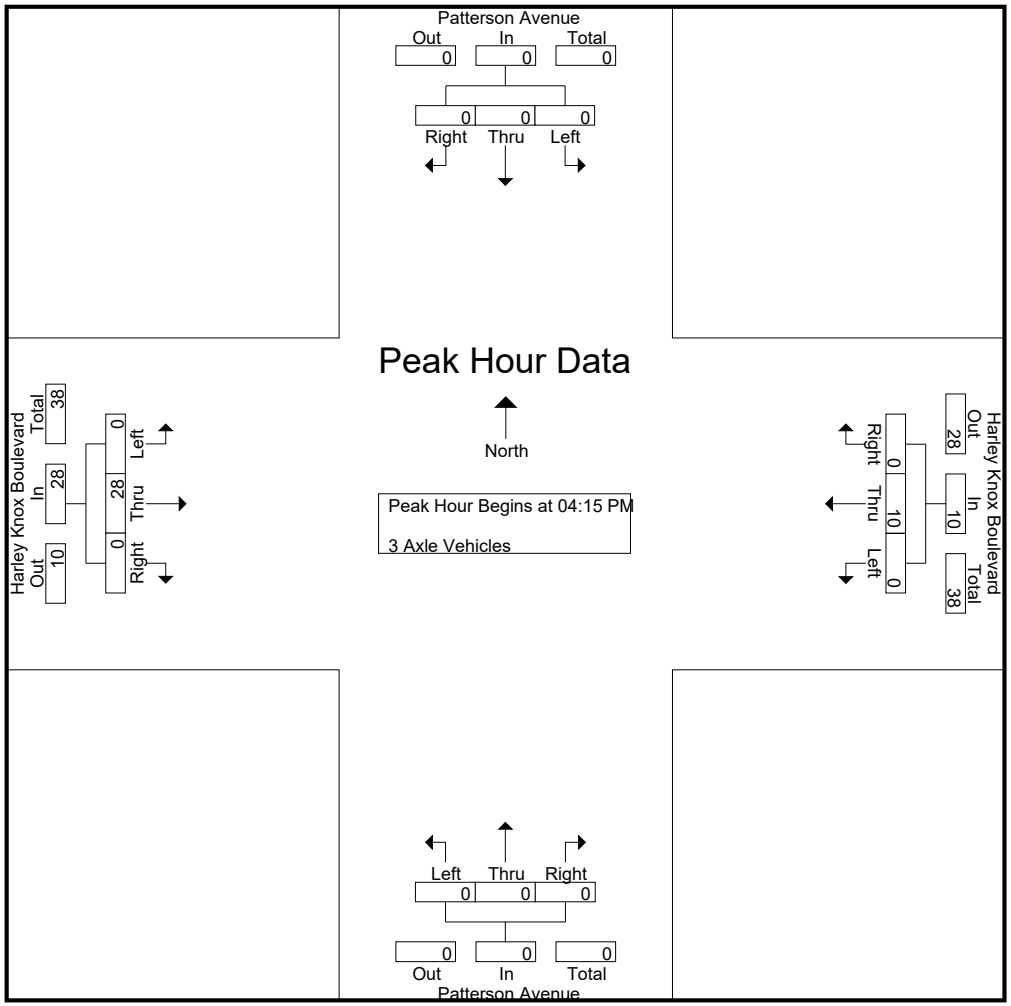
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1657

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	6	0	6	
+15 mins.	0	0	0	0	0	**4**	0	**4**	0	0	0	0	0	**10**	0	**10**	
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	9	0	9	
Total Volume	0	0	0	0	0	10	0	10	0	0	0	0	0	28	0	28	
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.625	.000	.625	.000	.000	.000	.000	.000	.700	.000	.700	

Packet Pg. 1658

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Patterson Avenue Southbound					Harley Knox Boulevard Westbound					Patterson Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	0	13	13
04:15 PM	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	6	1	0	7	0	22	22
04:30 PM	0	0	0	0	0	0	10	0	0	10	1	0	0	0	1	0	13	0	0	13	0	24	24
04:45 PM	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	10	0	0	10	0	21	21
Total	0	0	0	0	0	0	44	0	0	44	1	0	0	0	1	0	34	1	0	35	0	80	80
05:00 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	0	8	8
05:15 PM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	6	0	0	6	0	12	12
05:30 PM	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	4	0	0	4	0	14	14
05:45 PM	0	0	0	0	0	0	9	0	0	9	1	0	0	0	1	0	1	0	0	1	0	11	11
Total	0	0	0	0	0	0	30	0	0	30	1	0	0	0	1	0	14	0	0	14	0	45	45
Grand Total	0	0	0	0	0	0	74	0	0	74	2	0	0	0	2	0	48	1	0	49	0	125	125
Apprch %	0	0	0			0	100	0			100	0	0			0	98	2					
Total %	0	0	0		0	0	59.2	0		59.2	1.6	0	0		1.6	0	38.4	0.8		39.2	0	100	

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	**15**	0	**15**	0	0	0	0	0	6	**1**	7	22
04:30 PM	0	0	0	0	0	10	0	10	**1**	0	0	**1**	0	**13**	0	**13**	**24**
04:45 PM	0	0	0	0	0	11	0	11	0	0	0	0	0	10	0	10	21
05:00 PM	0	0	0	0	0	5	0	5	0	0	0	0	0	3	0	3	8
Total Volume	0	0	0	0	0	41	0	41	1	0	0	1	0	32	1	33	75
% App. Total	0	0	0		0	100	0		100	0	0		0	97	3		
PHF	.000	.000	.000	.000	.000	.683	.000	.683	.250	.000	.000	.250	.000	.615	.250	.635	.781

Packet Pg. 1659

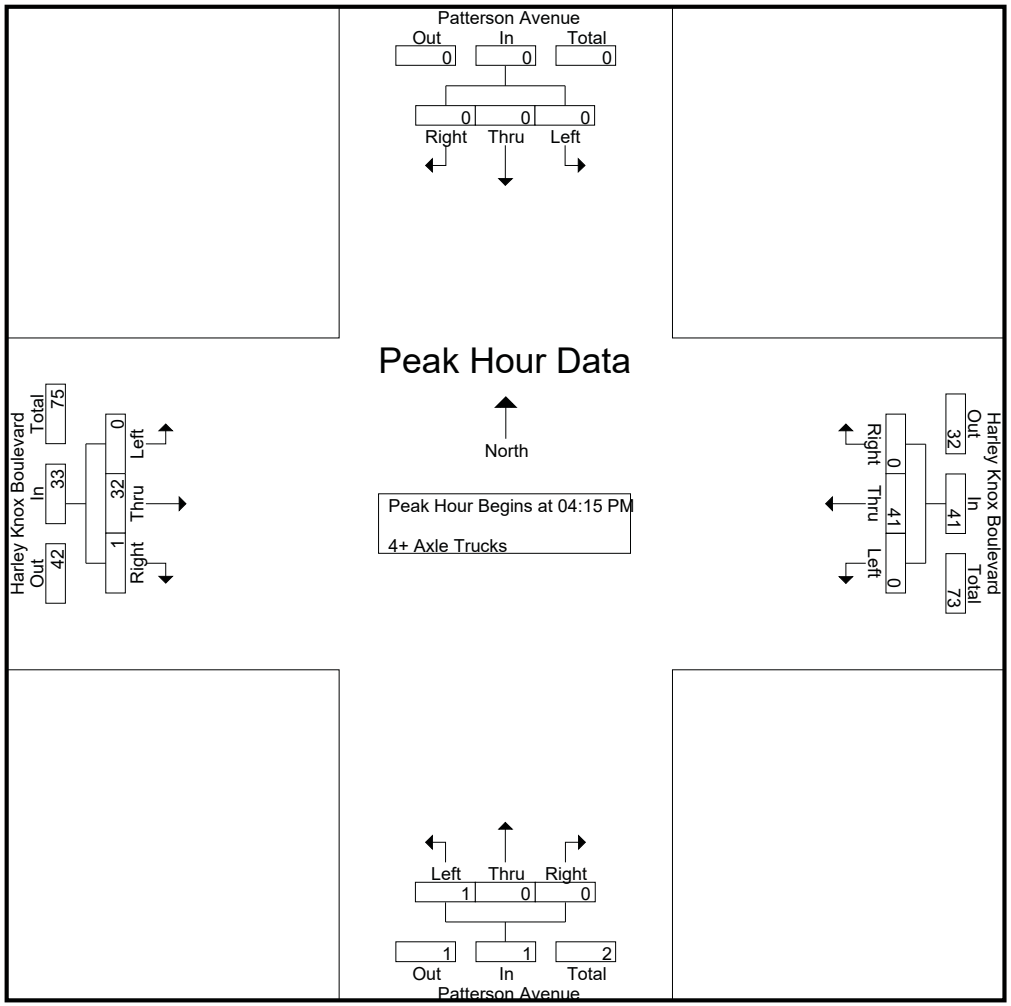
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1660

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERPAHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Patterson Avenue Southbound				Harley Knox Boulevard Westbound				Patterson Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	0	0	0	**15**	0	**15**	0	0	0	0	0	6	**1**	7	
+15 mins.	0	0	0	0	0	10	0	10	**1**	0	0	**1**	0	**13**	0	**13**	
+30 mins.	0	0	0	0	0	11	0	11	0	0	0	0	0	10	0	10	
+45 mins.	0	0	0	0	0	5	0	5	0	0	0	0	0	3	0	3	
Total Volume	0	0	0	0	0	41	0	41	1	0	0	1	0	32	1	33	
% App. Total	0	0	0		0	100	0		100	0	0		0	97	3		
PHF	.000	.000	.000	.000	.000	.683	.000	.683	.250	.000	.000	.250	.000	.615	.250	.635	

Packet Pg. 1661

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Location: Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

PEDESTRIANS

	North Leg Patterson Avenue	East Leg Harley Knox Boulevard	South Leg Patterson Avenue	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Patterson Avenue	East Leg Harley Knox Boulevard	South Leg Patterson Avenue	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
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Corona, CA 92878
951-268-6268

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Location: Perris
N/S: Patterson Avenue
E/W: Harley Knox Boulevard

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

BICYCLES

	North Leg Patterson Avenue	East Leg Harley Knox Boulevard	South Leg Patterson Avenue	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Patterson Avenue	East Leg Harley Knox Boulevard	South Leg Patterson Avenue	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Corona, CA 92878
951-268-6268

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
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(951) 268-6268

City of Perris
N/S: Webster Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWBHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	222	222	0	1	1	106	0	106	329
07:15 AM	0	156	156	0	0	0	108	2	110	266
07:30 AM	0	138	138	0	1	1	124	0	124	263
07:45 AM	0	132	132	0	1	1	137	0	137	270
Total	0	648	648	0	3	3	475	2	477	1128
08:00 AM	0	104	104	0	0	0	105	1	106	210
08:15 AM	0	74	74	0	0	0	56	1	57	131
08:30 AM	0	67	67	0	0	0	68	2	70	137
08:45 AM	0	68	68	0	0	0	55	0	55	123
Total	0	313	313	0	0	0	284	4	288	601
Grand Total	0	961	961	0	3	3	759	6	765	1729
Apprch %	0	100		0	100		99.2	0.8		
Total %	0	55.6	55.6	0	0.2	0.2	43.9	0.3	44.2	
Passenger Vehicles	0	843	843	0	3	3	649	5	654	1500
% Passenger Vehicles	0	87.7	87.7	0	100	100	85.5	83.3	85.5	86.8
Large 2 Axle Vehicles	0	24	24	0	0	0	26	1	27	51
% Large 2 Axle Vehicles	0	2.5	2.5	0	0	0	3.4	16.7	3.5	2.9
3 Axle Vehicles	0	26	26	0	0	0	26	0	26	52
% 3 Axle Vehicles	0	2.7	2.7	0	0	0	3.4	0	3.4	3
4+ Axle Trucks	0	68	68	0	0	0	58	0	58	126
% 4+ Axle Trucks	0	7.1	7.1	0	0	0	7.6	0	7.6	7.3

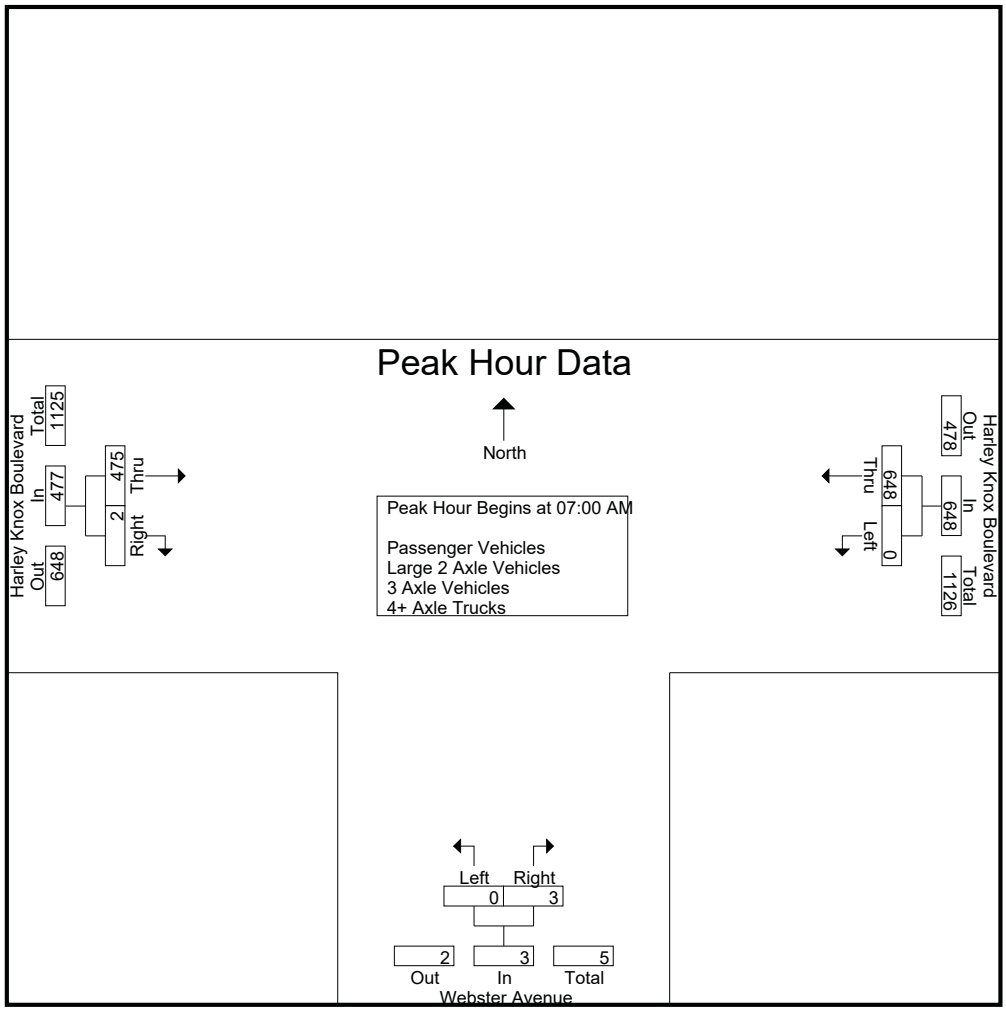
	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**222**	**222**	0	**1**	**1**	106	0	106	**329**
07:15 AM	0	156	156	0	0	0	108	**2**	110	266
07:30 AM	0	138	138	0	1	1	124	0	124	263
07:45 AM	0	132	132	0	1	1	**137**	0	**137**	270
Total Volume	0	648	648	0	3	3	475	2	477	1128
% App. Total	0	100		0	100		99.6	0.4		
PHF	.000	.730	.730	.000	.750	.750	.867	.250	.870	.857

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Webster Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWBHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**222**	**222**	0	**1**	**1**	106	0	106
+15 mins.	0	156	156	0	0	0	108	**2**	110
+30 mins.	0	138	138	0	1	1	124	0	124
+45 mins.	0	132	132	0	1	1	**137**	0	**137**
Total Volume	0	648	648	0	3	3	475	2	477
% App. Total	0	100		0	100		99.6	0.4	
PHF	.000	.730	.730	.000	.750	.750	.867	.250	.870

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Webster Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWBHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	213	213	0	1	1	89	0	89	303
07:15 AM	0	145	145	0	0	0	92	2	94	239
07:30 AM	0	121	121	0	1	1	111	0	111	233
07:45 AM	0	118	118	0	1	1	127	0	127	246
Total	0	597	597	0	3	3	419	2	421	1021
08:00 AM	0	83	83	0	0	0	93	1	94	177
08:15 AM	0	59	59	0	0	0	42	1	43	102
08:30 AM	0	53	53	0	0	0	54	1	55	108
08:45 AM	0	51	51	0	0	0	41	0	41	92
Total	0	246	246	0	0	0	230	3	233	479
Grand Total	0	843	843	0	3	3	649	5	654	1500
Apprch %	0	100		0	100		99.2	0.8		
Total %	0	56.2	56.2	0	0.2	0.2	43.3	0.3	43.6	

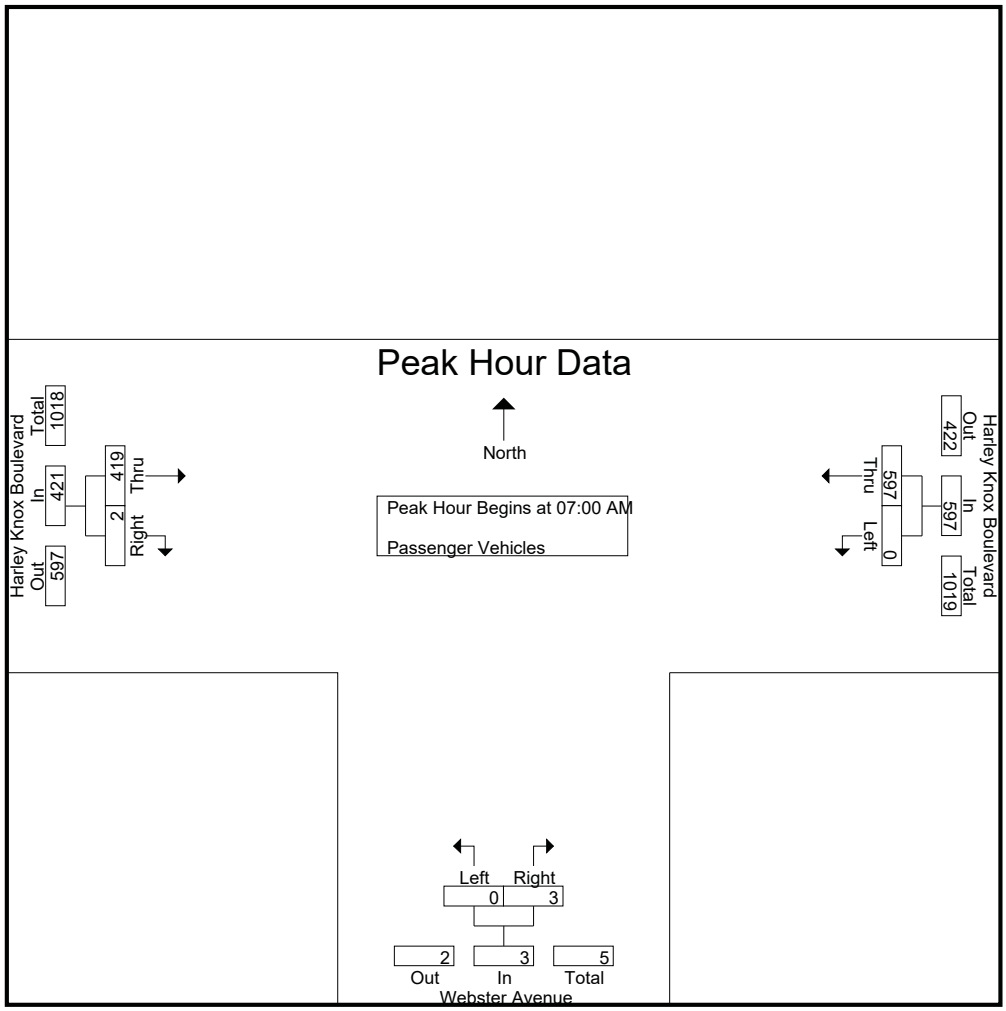
	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**213**	**213**	0	**1**	**1**	89	0	89	**303**
07:15 AM	0	145	145	0	0	0	92	**2**	94	239
07:30 AM	0	121	121	0	1	1	111	0	111	233
07:45 AM	0	118	118	0	1	1	**127**	0	**127**	246
Total Volume	0	597	597	0	3	3	419	2	421	1021
% App. Total	0	100		0	100		99.5	0.5		
PHF	.000	.701	.701	.000	.750	.750	.825	.250	.829	.842

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Webster Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWBHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**213**	**213**	0	**1**	**1**	89	0	89
+15 mins.	0	145	145	0	0	0	92	**2**	94
+30 mins.	0	121	121	0	1	1	111	0	111
+45 mins.	0	118	118	0	1	1	**127**	0	**127**
Total Volume	0	597	597	0	3	3	419	2	421
% App. Total	0	100		0	100		99.5	0.5	
PHF	.000	.701	.701	.000	.750	.750	.825	.250	.829

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Webster Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWBHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	1	0	0	0	4	0	4	5
07:15 AM	0	1	1	0	0	0	4	0	4	5
07:30 AM	0	5	5	0	0	0	3	0	3	8
07:45 AM	0	5	5	0	0	0	3	0	3	8
Total	0	12	12	0	0	0	14	0	14	26
08:00 AM	0	2	2	0	0	0	2	0	2	4
08:15 AM	0	4	4	0	0	0	3	0	3	7
08:30 AM	0	3	3	0	0	0	4	1	5	8
08:45 AM	0	3	3	0	0	0	3	0	3	6
Total	0	12	12	0	0	0	12	1	13	25
Grand Total	0	24	24	0	0	0	26	1	27	51
Apprch %	0	100		0	0		96.3	3.7		
Total %	0	47.1	47.1	0	0	0	51	2	52.9	

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	1	1	0	0	0	**4**	0	**4**	5
07:15 AM	0	1	1	0	0	0	4	0	4	5
07:30 AM	0	**5**	**5**	0	0	0	3	0	3	**8**
07:45 AM	0	5	5	0	0	0	3	0	3	8
Total Volume	0	12	12	0	0	0	14	0	14	26
% App. Total	0	100		0	0		100	0		
PHF	.000	.600	.600	.000	.000	.000	.875	.000	.875	.813

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
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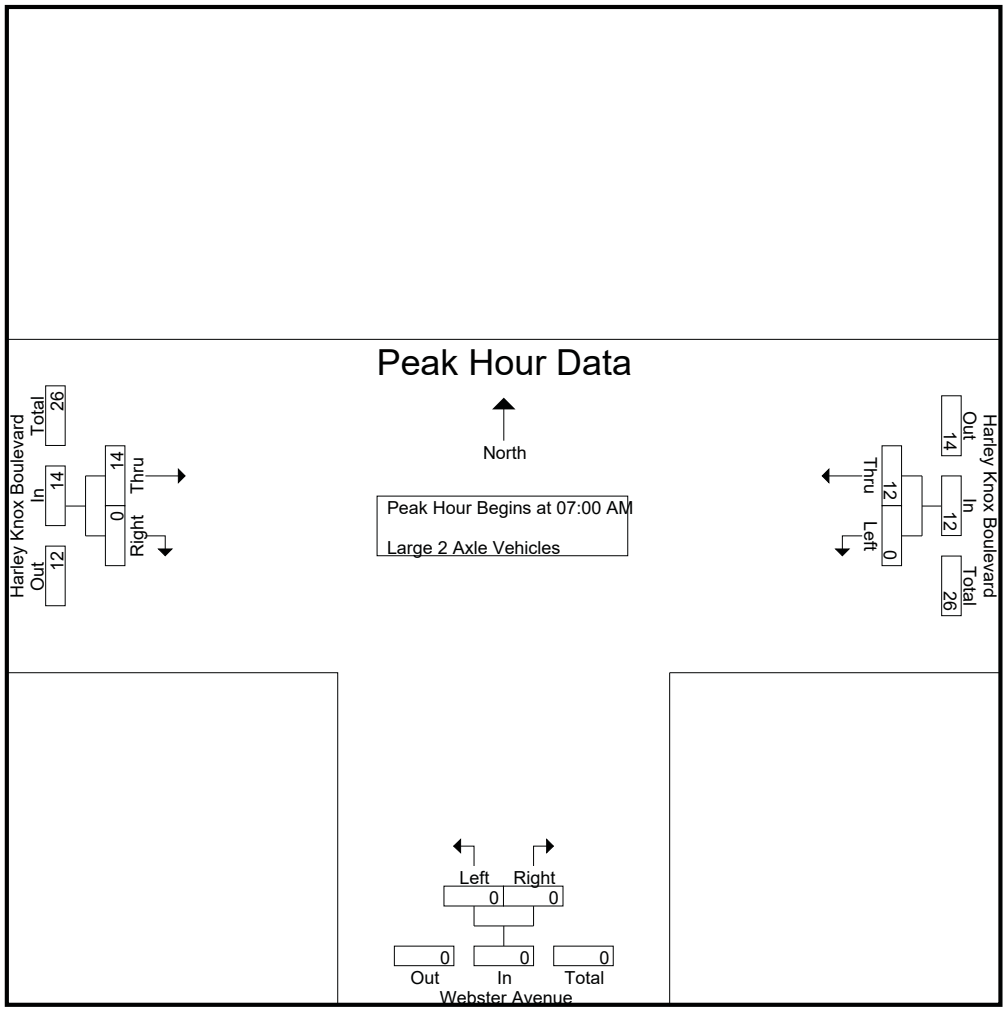
City of Perris
N/S: Webster Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWBHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	1	1	0	0	0	**4**	0	**4**
+15 mins.	0	1	1	0	0	0	4	0	4
+30 mins.	0	**5**	**5**	0	0	0	3	0	3
+45 mins.	0	5	5	0	0	0	3	0	3
Total Volume	0	12	12	0	0	0	14	0	14
% App. Total	0	100		0	0		100	0	
PHF	.000	.600	.600	.000	.000	.000	.875	.000	.875

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
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City of Perris
N/S: Webster Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWBHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	2	0	0	0	5	0	5	7
07:15 AM	0	4	4	0	0	0	1	0	1	5
07:30 AM	0	3	3	0	0	0	4	0	4	7
07:45 AM	0	2	2	0	0	0	3	0	3	5
Total	0	11	11	0	0	0	13	0	13	24
08:00 AM	0	3	3	0	0	0	2	0	2	5
08:15 AM	0	3	3	0	0	0	5	0	5	8
08:30 AM	0	6	6	0	0	0	3	0	3	9
08:45 AM	0	3	3	0	0	0	3	0	3	6
Total	0	15	15	0	0	0	13	0	13	28
Grand Total	0	26	26	0	0	0	26	0	26	52
Apprch %	0	100		0	0		100	0		
Total %	0	50	50	0	0	0	50	0	50	

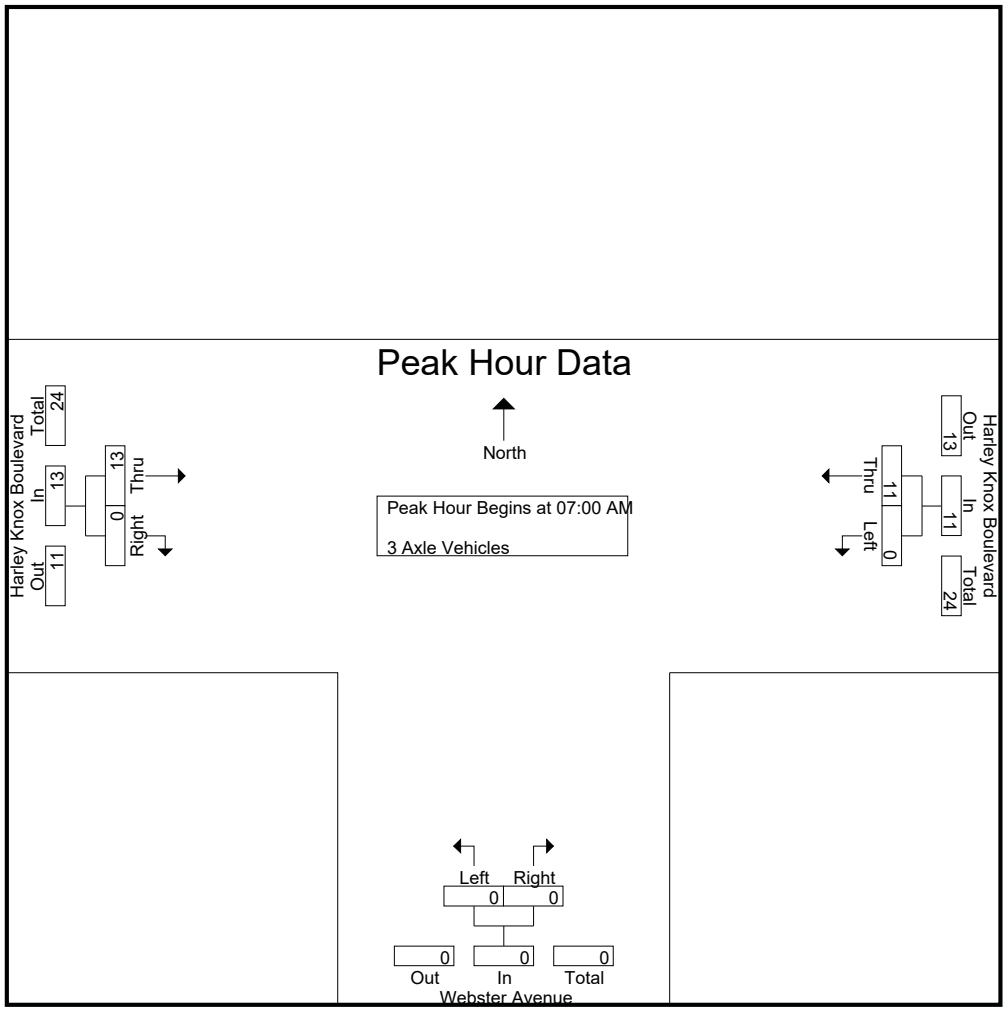
	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	2	2	0	0	0	**5**	0	**5**	**7**
07:15 AM	0	**4**	**4**	0	0	0	1	0	1	5
07:30 AM	0	3	3	0	0	0	4	0	4	7
07:45 AM	0	2	2	0	0	0	3	0	3	5
Total Volume	0	11	11	0	0	0	13	0	13	24
% App. Total	0	100		0	0		100	0		
PHF	.000	.688	.688	.000	.000	.000	.650	.000	.650	.857

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Webster Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWBHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	2	2	0	0	0	**5**	0	**5**
+15 mins.	0	**4**	**4**	0	0	0	1	0	1
+30 mins.	0	3	3	0	0	0	4	0	4
+45 mins.	0	2	2	0	0	0	3	0	3
Total Volume	0	11	11	0	0	0	13	0	13
% App. Total	0	100		0	0		100	0	
PHF	.000	.688	.688	.000	.000	.000	.650	.000	.650

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
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City of Perris
N/S: Webster Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWBHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	6	6	0	0	0	8	0	8	14
07:15 AM	0	6	6	0	0	0	11	0	11	17
07:30 AM	0	9	9	0	0	0	6	0	6	15
07:45 AM	0	7	7	0	0	0	4	0	4	11
Total	0	28	28	0	0	0	29	0	29	57
08:00 AM	0	16	16	0	0	0	8	0	8	24
08:15 AM	0	8	8	0	0	0	6	0	6	14
08:30 AM	0	5	5	0	0	0	7	0	7	12
08:45 AM	0	11	11	0	0	0	8	0	8	19
Total	0	40	40	0	0	0	29	0	29	69
Grand Total	0	68	68	0	0	0	58	0	58	126
Apprch %	0	100		0	0		100	0		
Total %	0	54	54	0	0	0	46	0	46	

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	6	6	0	0	0	8	0	8	14
07:15 AM	0	6	6	0	0	0	**11**	0	**11**	**17**
07:30 AM	0	**9**	**9**	0	0	0	6	0	6	15
07:45 AM	0	7	7	0	0	0	4	0	4	11
Total Volume	0	28	28	0	0	0	29	0	29	57
% App. Total	0	100		0	0		100	0		
PHF	.000	.778	.778	.000	.000	.000	.659	.000	.659	.838

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Webster Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWBHAAM
Site Code : 05115699
Start Date : 12/16/2015
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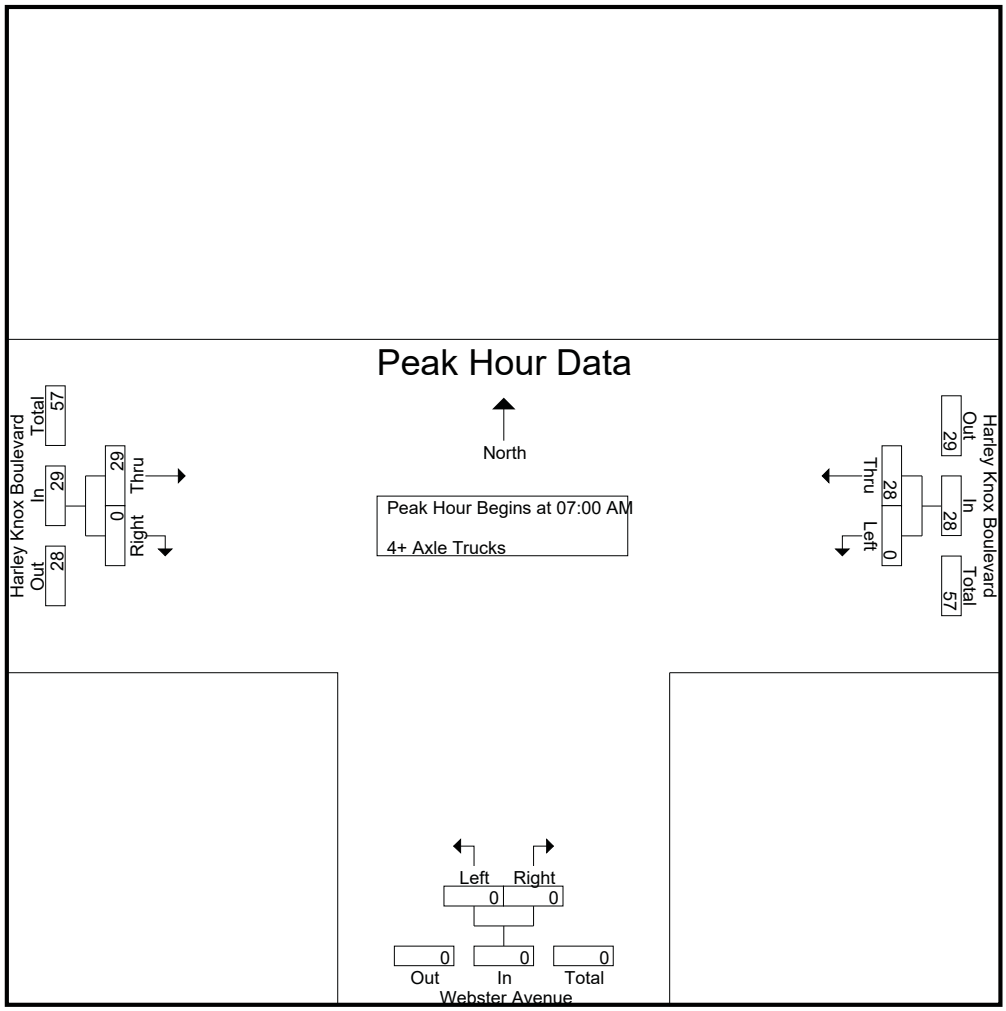

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	6	6	0	0	0	8	0	8
+15 mins.	0	6	6	0	0	0	**11**	0	**11**
+30 mins.	0	**9**	**9**	0	0	0	6	0	6
+45 mins.	0	7	7	0	0	0	4	0	4
Total Volume	0	28	28	0	0	0	29	0	29
% App. Total	0	100		0	0		100	0	
PHF	.000	.778	.778	.000	.000	.000	.659	.000	.659

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Webster Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWBHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	106	106	0	8	8	125	2	127	241
04:15 PM	0	96	96	0	0	0	133	0	133	229
04:30 PM	0	142	142	0	1	1	174	0	174	317
04:45 PM	0	192	192	0	1	1	129	1	130	323
Total	0	536	536	0	10	10	561	3	564	1110
05:00 PM	0	132	132	0	1	1	120	1	121	254
05:15 PM	0	111	111	0	0	0	103	0	103	214
05:30 PM	0	125	125	0	3	3	142	2	144	272
05:45 PM	0	135	135	0	1	1	161	1	162	298
Total	0	503	503	0	5	5	526	4	530	1038
Grand Total	0	1039	1039	0	15	15	1087	7	1094	2148
Apprch %	0	100		0	100		99.4	0.6		
Total %	0	48.4	48.4	0	0.7	0.7	50.6	0.3	50.9	
Passenger Vehicles	0	943	943	0	15	15	988	7	995	1953
% Passenger Vehicles	0	90.8	90.8	0	100	100	90.9	100	91	90.9
Large 2 Axle Vehicles	0	8	8	0	0	0	12	0	12	20
% Large 2 Axle Vehicles	0	0.8	0.8	0	0	0	1.1	0	1.1	0.9
3 Axle Vehicles	0	16	16	0	0	0	40	0	40	56
% 3 Axle Vehicles	0	1.5	1.5	0	0	0	3.7	0	3.7	2.6
4+ Axle Trucks	0	72	72	0	0	0	47	0	47	119
% 4+ Axle Trucks	0	6.9	6.9	0	0	0	4.3	0	4.3	5.5

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	96	96	0	0	0	133	0	133	229
04:30 PM	0	142	142	0	**1**	**1**	**174**	0	**174**	317
04:45 PM	0	**192**	**192**	0	1	1	129	**1**	130	**323**
05:00 PM	0	132	132	0	1	1	120	1	121	254
Total Volume	0	562	562	0	3	3	556	2	558	1123
% App. Total	0	100		0	100		99.6	0.4		
PHF	.000	.732	.732	.000	.750	.750	.799	.500	.802	.869

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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City of Perris
N/S: Webster Avenue
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File Name : PERWBHAPM
Site Code : 05115699
Start Date : 12/16/2015
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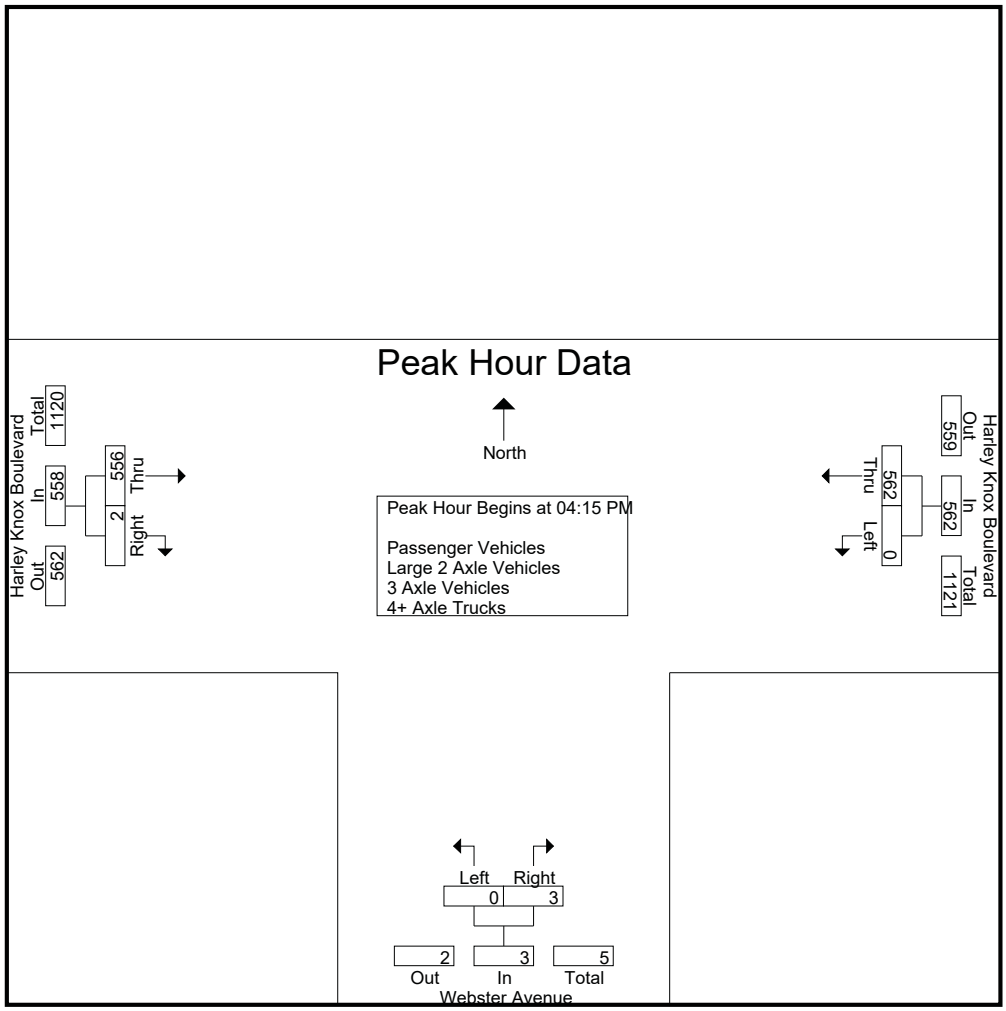

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:00 PM			04:00 PM		
+0 mins.	0	142	142	0	**8**	**8**	125	**2**	127
+15 mins.	0	**192**	**192**	0	0	0	133	0	133
+30 mins.	0	132	132	0	1	1	**174**	0	**174**
+45 mins.	0	111	111	0	1	1	129	1	130
Total Volume	0	577	577	0	10	10	561	3	564
% App. Total	0	100		0	100		99.5	0.5	
PHF	.000	.751	.751	.000	.313	.313	.806	.375	.810

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City of Perris
N/S: Webster Avenue
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Weather: Clear

File Name : PERWBHAPM
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Start Date : 12/16/2015
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Groups Printed- Passenger Vehicles

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	96	96	0	8	8	115	2	117	221
04:15 PM	0	83	83	0	0	0	119	0	119	202
04:30 PM	0	125	125	0	1	1	153	0	153	279
04:45 PM	0	176	176	0	1	1	116	1	117	294
Total	0	480	480	0	10	10	503	3	506	996
05:00 PM	0	124	124	0	1	1	105	1	106	231
05:15 PM	0	105	105	0	0	0	96	0	96	201
05:30 PM	0	111	111	0	3	3	133	2	135	249
05:45 PM	0	123	123	0	1	1	151	1	152	276
Total	0	463	463	0	5	5	485	4	489	957
Grand Total	0	943	943	0	15	15	988	7	995	1953
Apprch %	0	100		0	100		99.3	0.7		
Total %	0	48.3	48.3	0	0.8	0.8	50.6	0.4	50.9	

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	83	83	0	0	0	119	0	119	202
04:30 PM	0	125	125	0	**1**	**1**	**153**	0	**153**	279
04:45 PM	0	**176**	**176**	0	1	1	116	**1**	117	**294**
05:00 PM	0	124	124	0	1	1	105	1	106	231
Total Volume	0	508	508	0	3	3	493	2	495	1006
% App. Total	0	100		0	100		99.6	0.4		
PHF	.000	.722	.722	.000	.750	.750	.806	.500	.809	.855

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City of Perris
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File Name : PERWBHAPM
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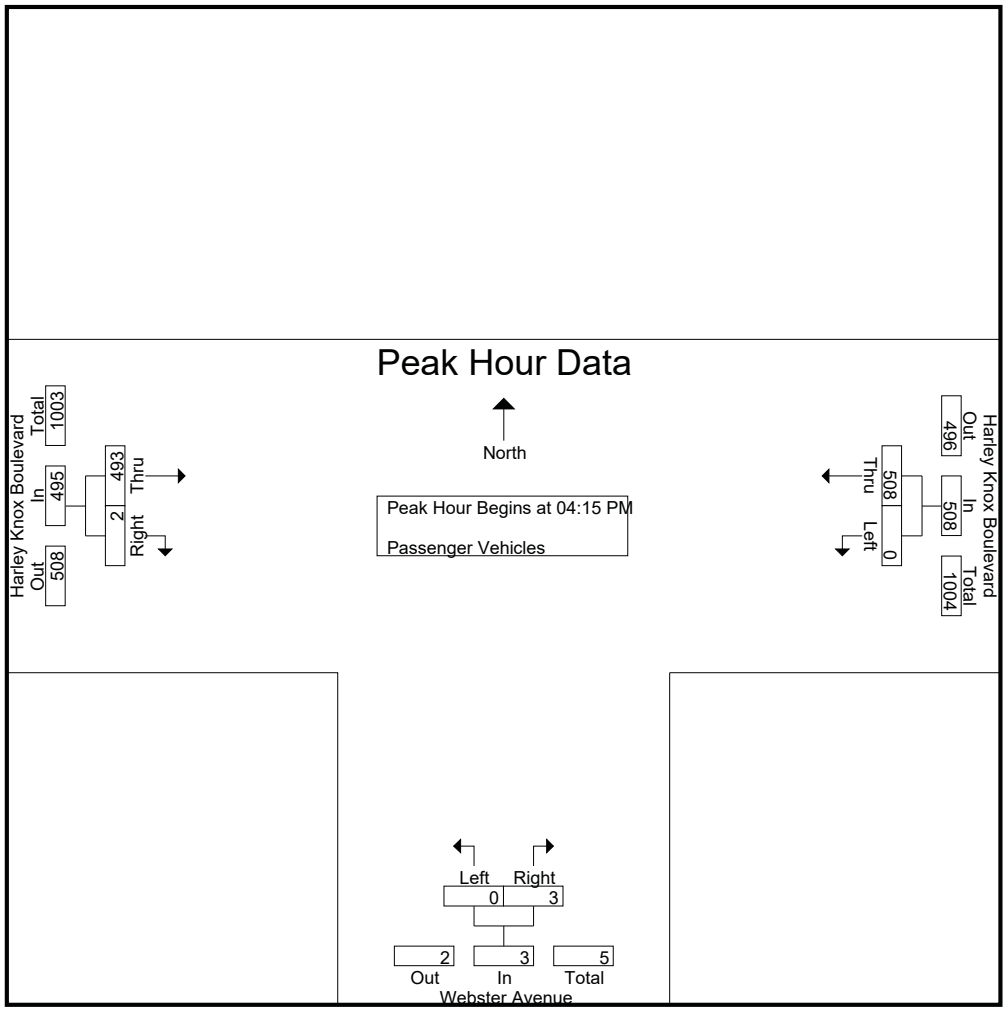

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	83	83	0	0	0	119	0	119
+15 mins.	0	125	125	0	**1**	**1**	**153**	0	**153**
+30 mins.	0	**176**	**176**	0	1	1	116	**1**	117
+45 mins.	0	124	124	0	1	1	105	1	106
Total Volume	0	508	508	0	3	3	493	2	495
% App. Total	0	100		0	100		99.6	0.4	
PHF	.000	.722	.722	.000	.750	.750	.806	.500	.809

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City of Perris
N/S: Webster Avenue
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File Name : PERWBHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	2	0	2	2
04:15 PM	0	0	0	0	0	0	4	0	4	4
04:30 PM	0	3	3	0	0	0	1	0	1	4
04:45 PM	0	1	1	0	0	0	0	0	0	1
Total	0	4	4	0	0	0	7	0	7	11
05:00 PM	0	1	1	0	0	0	2	0	2	3
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	1	0	0	0	1	0	1	2
05:45 PM	0	2	2	0	0	0	2	0	2	4
Total	0	4	4	0	0	0	5	0	5	9
Grand Total	0	8	8	0	0	0	12	0	12	20
Apprch %	0	100		0	0		100	0		
Total %	0	40	40	0	0	0	60	0	60	

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	0	0	0	**4**	0	**4**	**4**
04:30 PM	0	**3**	**3**	0	0	0	1	0	1	4
04:45 PM	0	1	1	0	0	0	0	0	0	1
05:00 PM	0	1	1	0	0	0	2	0	2	3
Total Volume	0	5	5	0	0	0	7	0	7	12
% App. Total	0	100		0	0		100	0		
PHF	.000	.417	.417	.000	.000	.000	.438	.000	.438	.750

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City of Perris
N/S: Webster Avenue
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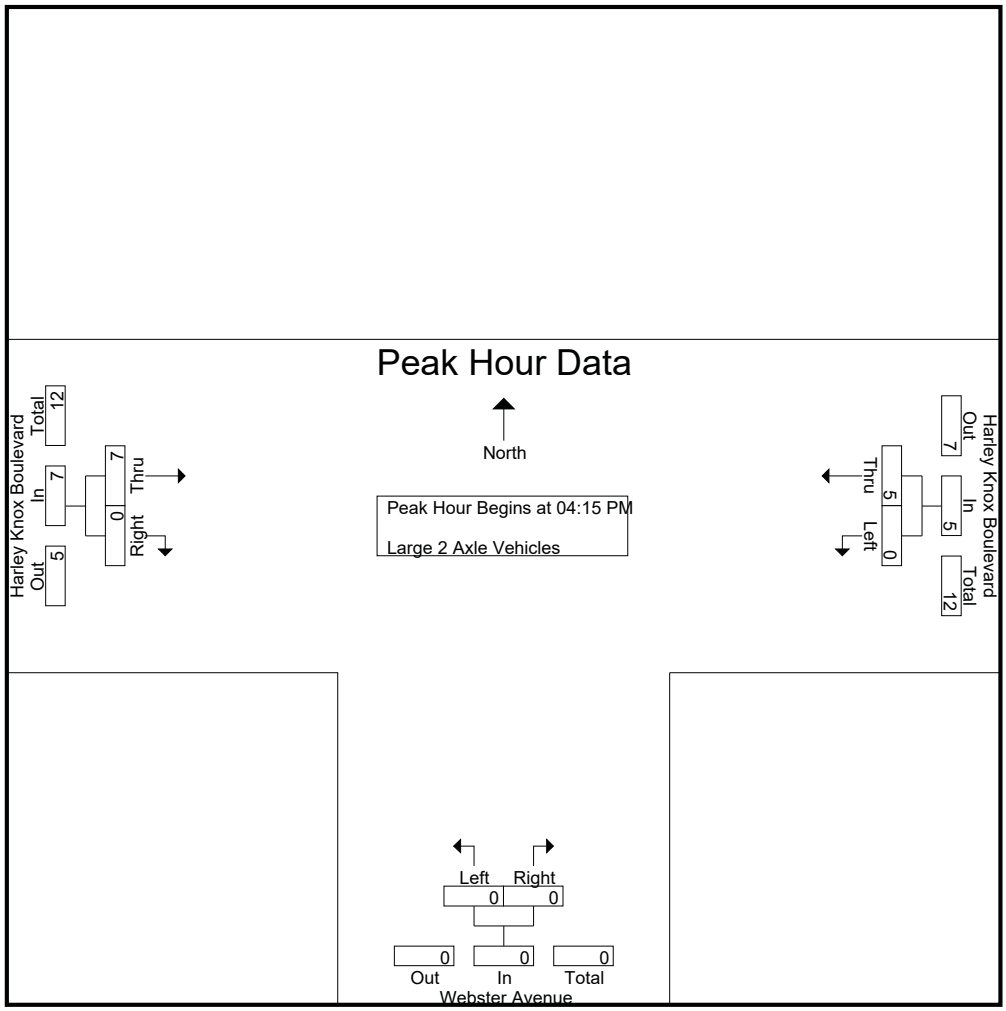
Weather: Clear

File Name : PERWBHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	0	0	0	**4**	0	**4**
+15 mins.	0	**3**	**3**	0	0	0	1	0	1
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	2	0	2
Total Volume	0	5	5	0	0	0	7	0	7
% App. Total	0	100		0	0		100	0	
PHF	.000	.417	.417	.000	.000	.000	.438	.000	.438

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City of Perris
N/S: Webster Avenue
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Weather: Clear

File Name : PERWBHAPM
Site Code : 05115699
Start Date : 12/16/2015
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Groups Printed- 3 Axle Vehicles

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	2	0	0	0	3	0	3	5
04:15 PM	0	2	2	0	0	0	5	0	5	7
04:30 PM	0	3	3	0	0	0	9	0	9	12
04:45 PM	0	3	3	0	0	0	3	0	3	6
Total	0	10	10	0	0	0	20	0	20	30
05:00 PM	0	1	1	0	0	0	9	0	9	10
05:15 PM	0	1	1	0	0	0	2	0	2	3
05:30 PM	0	4	4	0	0	0	3	0	3	7
05:45 PM	0	0	0	0	0	0	6	0	6	6
Total	0	6	6	0	0	0	20	0	20	26
Grand Total	0	16	16	0	0	0	40	0	40	56
Apprch %	0	100		0	0		100	0		
Total %	0	28.6	28.6	0	0	0	71.4	0	71.4	

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	2	2	0	0	0	5	0	5	7
04:30 PM	0	**3**	**3**	0	0	0	**9**	0	**9**	**12**
04:45 PM	0	3	3	0	0	0	3	0	3	6
05:00 PM	0	1	1	0	0	0	9	0	9	10
Total Volume	0	9	9	0	0	0	26	0	26	35
% App. Total	0	100		0	0		100	0		
PHF	.000	.750	.750	.000	.000	.000	.722	.000	.722	.729

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City of Perris
N/S: Webster Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERWBHAPM
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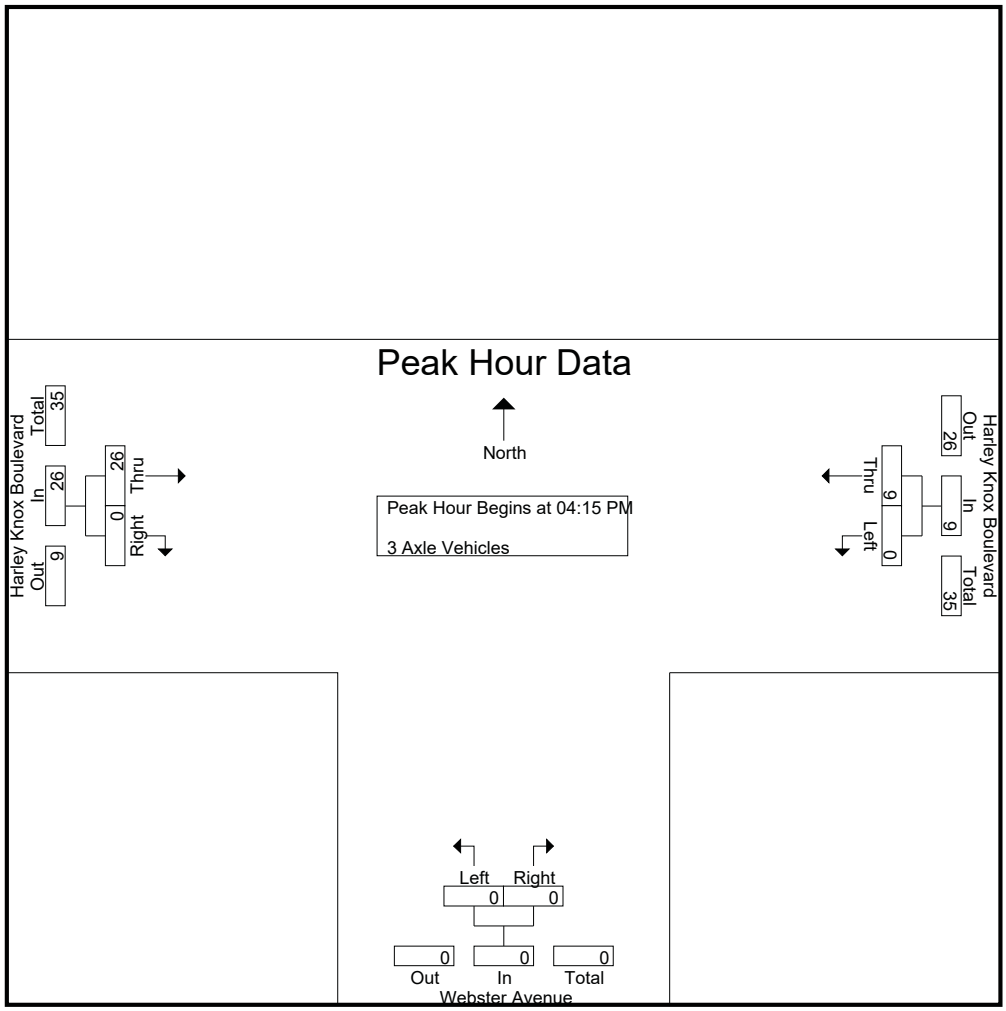
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	2	2	0	0	0	5	0	5
+15 mins.	0	**3**	**3**	0	0	0	**9**	0	**9**
+30 mins.	0	3	3	0	0	0	3	0	3
+45 mins.	0	1	1	0	0	0	9	0	9
Total Volume	0	9	9	0	0	0	26	0	26
% App. Total	0	100		0	0		100	0	
PHF	.000	.750	.750	.000	.000	.000	.722	.000	.722

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City of Perris
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File Name : PERWBHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	8	8	0	0	0	5	0	5	13
04:15 PM	0	11	11	0	0	0	5	0	5	16
04:30 PM	0	11	11	0	0	0	11	0	11	22
04:45 PM	0	12	12	0	0	0	10	0	10	22
Total	0	42	42	0	0	0	31	0	31	73
05:00 PM	0	6	6	0	0	0	4	0	4	10
05:15 PM	0	5	5	0	0	0	5	0	5	10
05:30 PM	0	9	9	0	0	0	5	0	5	14
05:45 PM	0	10	10	0	0	0	2	0	2	12
Total	0	30	30	0	0	0	16	0	16	46
Grand Total	0	72	72	0	0	0	47	0	47	119
Apprch %	0	100		0	0		100	0		
Total %	0	60.5	60.5	0	0	0	39.5	0	39.5	

	Harley Knox Boulevard Westbound			Webster Avenue Northbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	11	11	0	0	0	5	0	5	16
04:30 PM	0	11	11	0	0	0	**11**	0	**11**	**22**
04:45 PM	0	**12**	**12**	0	0	0	10	0	10	22
05:00 PM	0	6	6	0	0	0	4	0	4	10
Total Volume	0	40	40	0	0	0	30	0	30	70
% App. Total	0	100		0	0		100	0		
PHF	.000	.833	.833	.000	.000	.000	.682	.000	.682	.795

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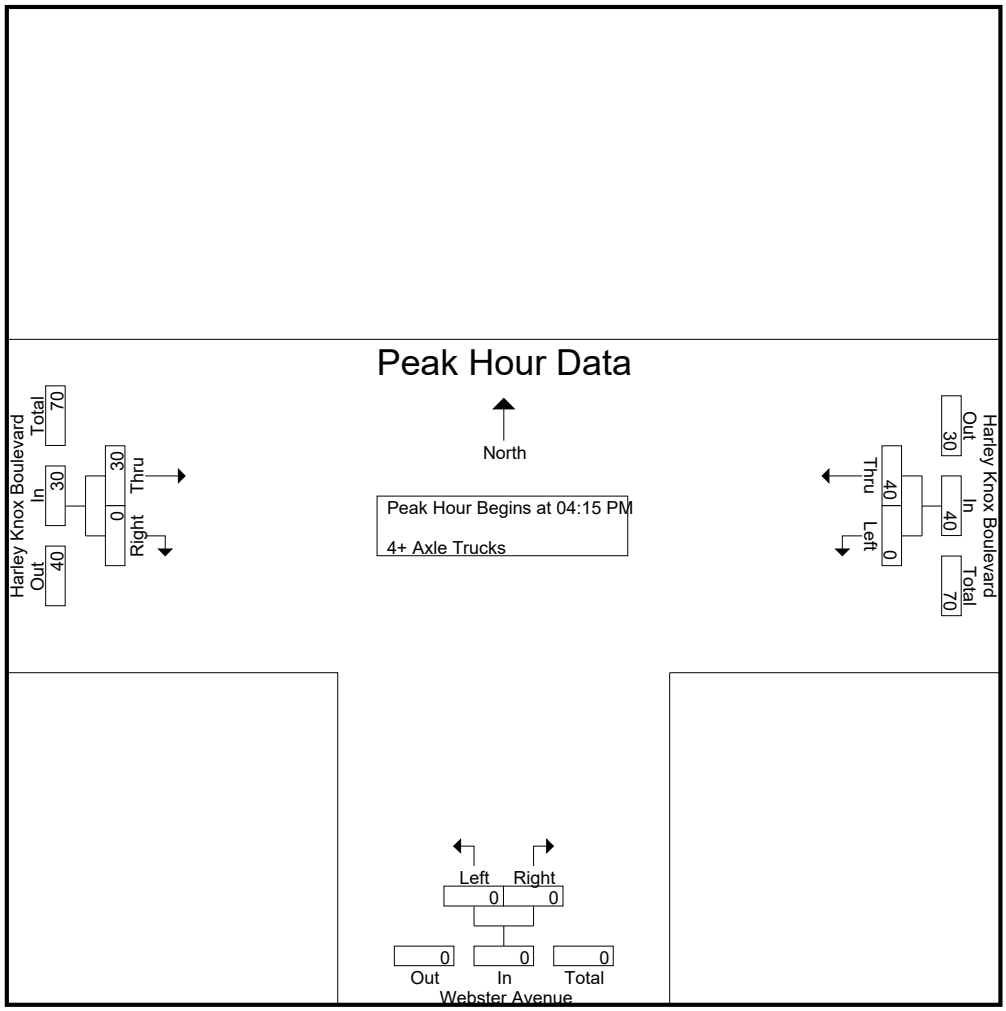

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	11	11	0	0	0	5	0	5
+15 mins.	0	11	11	0	0	0	**11**	0	**11**
+30 mins.	0	**12**	**12**	0	0	0	10	0	10
+45 mins.	0	6	6	0	0	0	4	0	4
Total Volume	0	40	40	0	0	0	30	0	30
% App. Total	0	100		0	0		100	0	
PHF	.000	.833	.833	.000	.000	.000	.682	.000	.682

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Location: Perris
N/S: Webster Avenue
E/W: Harley Knox Boulevard

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

PEDESTRIANS

	North Leg Webster Avenue	East Leg Harley Knox Boulevard	South Leg Webster Avenue	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Webster Avenue	East Leg Harley Knox Boulevard	South Leg Webster Avenue	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: Perris
N/S: Webster Avenue
E/W: Harley Knox Boulevard

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

BICYCLES

	North Leg Webster Avenue	East Leg Harley Knox Boulevard	South Leg Webster Avenue	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Webster Avenue	East Leg Harley Knox Boulevard	South Leg Webster Avenue	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Indian Street Southbound					Nandina Avenue Westbound					Indian Street Northbound					Nandina Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	17	0	0	18	15	2	0	0	17	13	39	4	1	56	1	4	17	9	22	10	113	123
07:15 AM	0	13	2	0	15	5	1	1	1	7	10	47	5	0	62	0	0	17	15	17	16	101	117
07:30 AM	2	11	1	1	14	7	6	1	0	14	11	52	4	1	67	0	3	17	10	20	12	115	127
07:45 AM	0	13	0	0	13	11	1	0	0	12	18	59	11	4	88	0	7	20	10	27	14	140	154
Total	3	54	3	1	60	38	10	2	1	50	52	197	24	6	273	1	14	71	44	86	52	469	521
08:00 AM	3	16	0	0	19	4	4	0	0	8	13	43	5	2	61	1	5	12	9	18	11	106	117
08:15 AM	0	24	3	2	27	8	3	5	5	16	6	18	1	0	25	0	2	14	10	16	17	84	101
08:30 AM	1	10	3	0	14	2	1	1	1	4	13	33	6	1	52	2	3	12	8	17	10	87	97
08:45 AM	1	15	4	2	20	7	2	1	0	10	3	19	5	0	27	1	2	14	10	17	12	74	86
Total	5	65	10	4	80	21	10	7	6	38	35	113	17	3	165	4	12	52	37	68	50	351	401
Grand Total	8	119	13	5	140	59	20	9	7	88	87	310	41	9	438	5	26	123	81	154	102	820	922
Apprch %	5.7	85	9.3			67	22.7	10.2			19.9	70.8	9.4			3.2	16.9	79.9					
Total %	1	14.5	1.6		17.1	7.2	2.4	1.1		10.7	10.6	37.8	5		53.4	0.6	3.2	15		18.8	11.1	88.9	
Passenger Vehicles	2	96	4		102	45	11	4		63	47	282	24		357	2	14	80		154	0	0	676
% Passenger Vehicles	25	80.7	30.8	0	70.3	76.3	55	44.4	42.9	66.3	54	91	58.5	44.4	79.9	40	53.8	65	71.6	65.5	0	0	73.3
Large 2 Axle Vehicles	1	10	3		15	4	4	0		8	4	11	8		25	1	4	9		20	0	0	68
% Large 2 Axle Vehicles	12.5	8.4	23.1	20	10.3	6.8	20	0	0	8.4	4.6	3.5	19.5	22.2	5.6	20	15.4	7.3	7.4	8.5	0	0	7.4
3 Axle Vehicles	2	4	1		8	5	0	3		11	9	2	4		17	0	1	9		17	0	0	53
% 3 Axle Vehicles	25	3.4	7.7	20	5.5	8.5	0	33.3	42.9	11.6	10.3	0.6	9.8	22.2	3.8	0	3.8	7.3	8.6	7.2	0	0	5.7
4+ Axle Trucks	3	9	5		20	5	5	2		13	27	15	5		48	2	7	25		44	0	0	125
% 4+ Axle Trucks	37.5	7.6	38.5	60	13.8	8.5	25	22.2	14.3	13.7	31	4.8	12.2	11.1	10.7	40	26.9	20.3	12.3	18.7	0	0	13.6

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	**17**	0	**18**	**15**	2	0	**17**	13	39	4	56	**1**	4	17	22	113
07:15 AM	0	13	**2**	15	5	1	**1**	7	10	47	5	62	0	0	17	17	101
07:30 AM	**2**	11	1	14	7	**6**	1	14	11	52	4	67	0	3	17	20	115
07:45 AM	0	13	0	13	11	1	0	12	**18**	**59**	**11**	**88**	0	**7**	**20**	**27**	**140**
Total Volume	3	54	3	60	38	10	2	50	52	197	24	273	1	14	71	86	469
% App. Total	5	90	5		76	20	4		19	72.2	8.8		1.2	16.3	82.6		
PHF	.375	.794	.375	.833	.633	.417	.500	.735	.722	.835	.545	.776	.250	.500	.888	.796	.838

Packet Pg. 1686

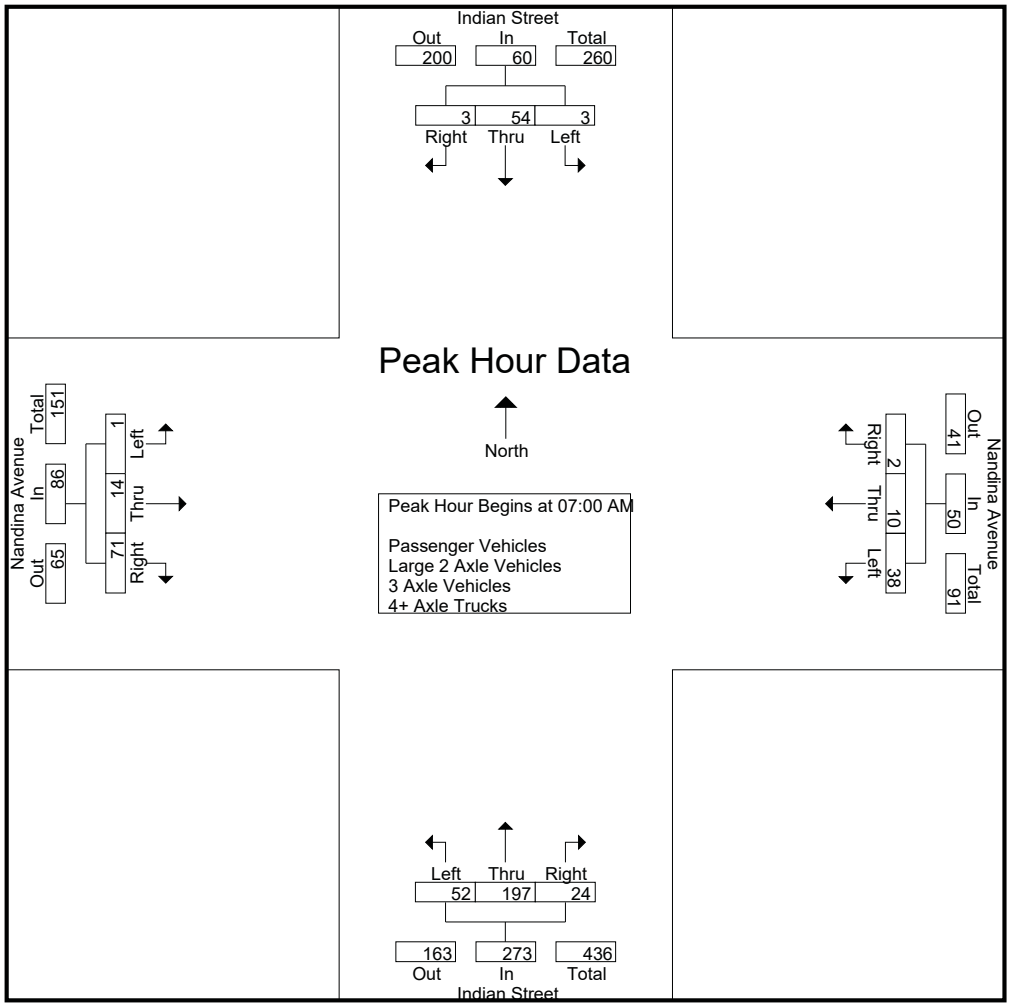
E.2.p

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1687

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	08:00 AM				07:00 AM				07:15 AM				07:00 AM				
+0 mins.	**3**	16	0	19	**15**	2	0	**17**	10	47	5	62	**1**	4	17	22	
+15 mins.	0	**24**	3	**27**	5	1	**1**	7	11	52	4	67	0	0	17	17	
+30 mins.	1	10	3	14	7	**6**	1	14	**18**	**59**	**11**	**88**	0	3	17	20	
+45 mins.	1	15	**4**	20	11	1	0	12	13	43	5	61	0	**7**	**20**	**27**	
Total Volume	5	65	10	80	38	10	2	50	52	201	25	278	1	14	71	86	
% App. Total	6.2	81.2	12.5		76	20	4		18.7	72.3	9		1.2	16.3	82.6		
PHF	.417	.677	.625	.741	.633	.417	.500	.735	.722	.852	.568	.790	.250	.500	.888	.796	

Packet Pg. 1688

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles

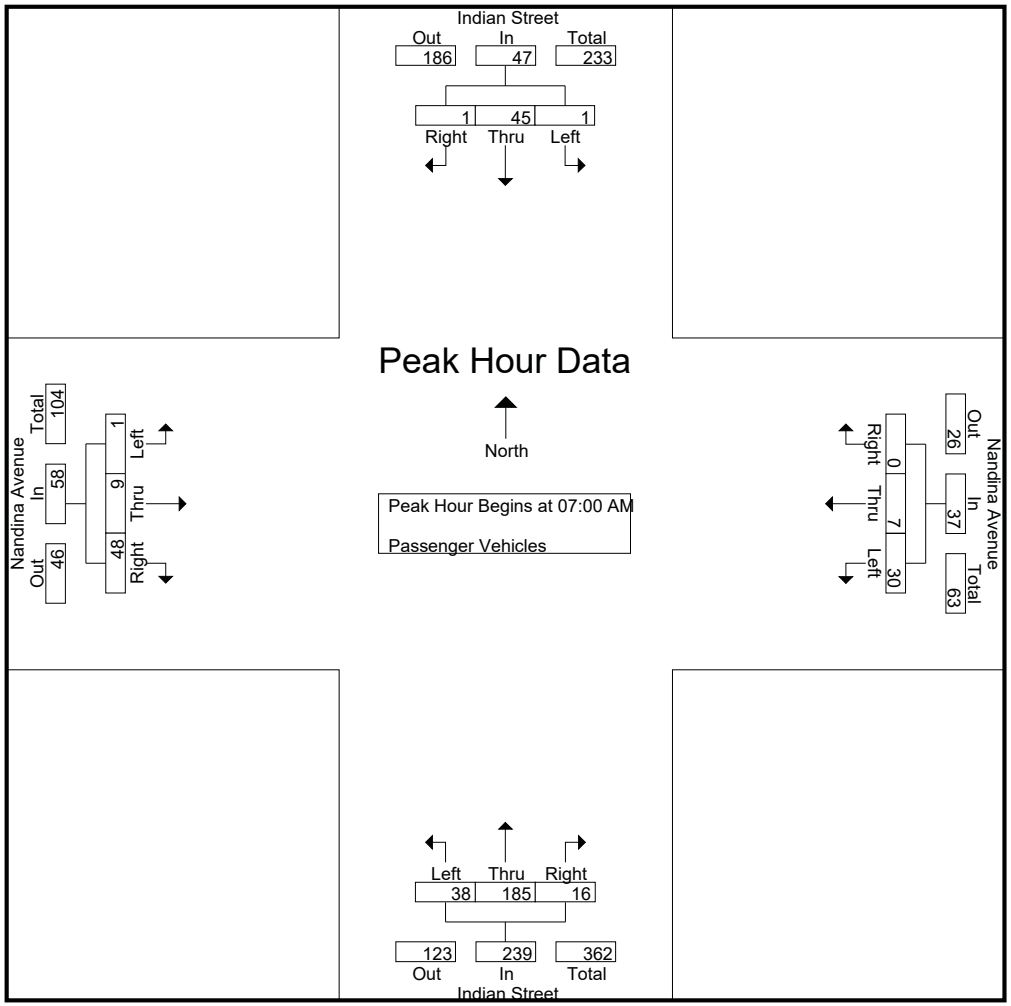
	Indian Street Southbound					Nandina Avenue Westbound					Indian Street Northbound					Nandina Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	15	0	0	15	15	1	0	0	16	9	35	3	0	47	1	2	14	9	17	9	95	104
07:15 AM	0	12	1	0	13	4	0	0	0	4	7	41	4	0	52	0	0	10	9	10	9	79	88
07:30 AM	1	9	0	0	10	6	5	0	0	11	9	50	1	0	60	0	2	11	7	13	7	94	101
07:45 AM	0	9	0	0	9	5	1	0	0	6	13	59	8	3	80	0	5	13	6	18	9	113	122
Total	1	45	1	0	47	30	7	0	0	37	38	185	16	3	239	1	9	48	31	58	34	381	415
08:00 AM	0	9	0	0	9	2	1	0	0	3	4	36	3	1	43	1	3	7	7	11	8	66	74
08:15 AM	0	22	1	0	23	7	2	2	2	11	2	16	1	0	19	0	1	10	9	11	11	64	75
08:30 AM	1	8	1	0	10	2	1	1	1	4	3	28	2	0	33	0	1	8	6	9	7	56	63
08:45 AM	0	12	1	0	13	4	0	1	0	5	0	17	2	0	19	0	0	7	5	7	5	44	49
Total	1	51	3	0	55	15	4	4	3	23	9	97	8	1	114	1	5	32	27	38	31	230	261
Grand Total	2	96	4	0	102	45	11	4	3	60	47	282	24	4	353	2	14	80	58	96	65	611	676
Apprch %	2	94.1	3.9			75	18.3	6.7			13.3	79.9	6.8			2.1	14.6	83.3					
Total %	0.3	15.7	0.7		16.7	7.4	1.8	0.7		9.8	7.7	46.2	3.9		57.8	0.3	2.3	13.1		15.7	9.6	90.4	

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**15**	0	**15**	**15**	1	0	**16**	9	35	3	47	**1**	2	**14**	17	95
07:15 AM	0	12	**1**	13	4	0	0	4	7	41	4	52	0	0	10	10	79
07:30 AM	**1**	9	0	10	6	**5**	0	11	9	50	1	60	0	2	11	13	94
07:45 AM	0	9	0	9	5	1	0	6	**13**	**59**	**8**	**80**	0	**5**	13	**18**	**113**
Total Volume	1	45	1	47	30	7	0	37	38	185	16	239	1	9	48	58	381
% App. Total	2.1	95.7	2.1		81.1	18.9	0		15.9	77.4	6.7		1.7	15.5	82.8		
PHF	.250	.750	.250	.783	.500	.350	.000	.578	.731	.784	.500	.747	.250	.450	.857	.806	.843

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	**15**	0	**15**	**15**	1	0	**16**	9	35	3	47	**1**	2	**14**	17	
+15 mins.	0	12	**1**	13	4	0	0	4	7	41	4	52	0	0	10	10	
+30 mins.	**1**	9	0	10	6	**5**	0	11	9	50	1	60	0	2	11	13	
+45 mins.	0	9	0	9	5	1	0	6	**13**	**59**	**8**	**80**	0	**5**	13	**18**	
Total Volume	1	45	1	47	30	7	0	37	38	185	16	239	1	9	48	58	
% App. Total	2.1	95.7	2.1		81.1	18.9	0		15.9	77.4	6.7		1.7	15.5	82.8		
PHF	.250	.750	.250	.783	.500	.350	.000	.578	.731	.784	.500	.747	.250	.450	.857	.806	

Packet Pg. 1691

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Indian Street Southbound					Nandina Avenue Westbound					Indian Street Northbound					Nandina Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:15 AM	0	0	1	0	1	0	0	0	0	0	1	4	1	0	6	0	0	1	1	1	1	8	9
07:30 AM	0	1	1	1	2	0	1	0	0	1	1	1	0	0	2	0	0	2	2	2	3	7	10
07:45 AM	0	4	0	0	4	1	0	0	0	1	1	0	3	1	4	0	1	2	2	3	3	12	15
Total	1	5	2	1	8	1	1	0	0	2	3	5	4	1	12	0	1	5	5	6	7	28	35
08:00 AM	0	2	0	0	2	1	3	0	0	4	0	2	1	0	3	0	1	3	1	4	1	13	14
08:15 AM	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2	0	1	1	0	2	0	6	6
08:30 AM	0	0	1	0	1	0	0	0	0	0	1	1	3	1	5	1	0	0	0	1	1	7	8
08:45 AM	0	2	0	0	2	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	0	5	5
Total	0	5	1	0	6	3	3	0	0	6	1	6	4	1	11	1	3	4	1	8	2	31	33
Grand Total	1	10	3	1	14	4	4	0	0	8	4	11	8	2	23	1	4	9	6	14	9	59	68
Apprch %	7.1	71.4	21.4			50	50	0			17.4	47.8	34.8			7.1	28.6	64.3					
Total %	1.7	16.9	5.1		23.7	6.8	6.8	0		13.6	6.8	18.6	13.6		39	1.7	6.8	15.3		23.7	13.2	86.8	

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**1**	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	**1**	1	0	0	0	0	**1**	**4**	1	**6**	0	0	1	1	8
07:30 AM	0	1	1	2	0	**1**	0	**1**	1	1	0	2	0	0	**2**	2	7
07:45 AM	0	**4**	0	**4**	**1**	0	0	1	1	0	**3**	4	0	**1**	2	**3**	**12**
Total Volume	1	5	2	8	1	1	0	2	3	5	4	12	0	1	5	6	28
% App. Total	12.5	62.5	25		50	50	0		25	41.7	33.3		0	16.7	83.3		
PHF	.250	.313	.500	.500	.250	.250	.000	.500	.750	.313	.333	.500	.000	.250	.625	.500	.583

Packet Pg. 1692

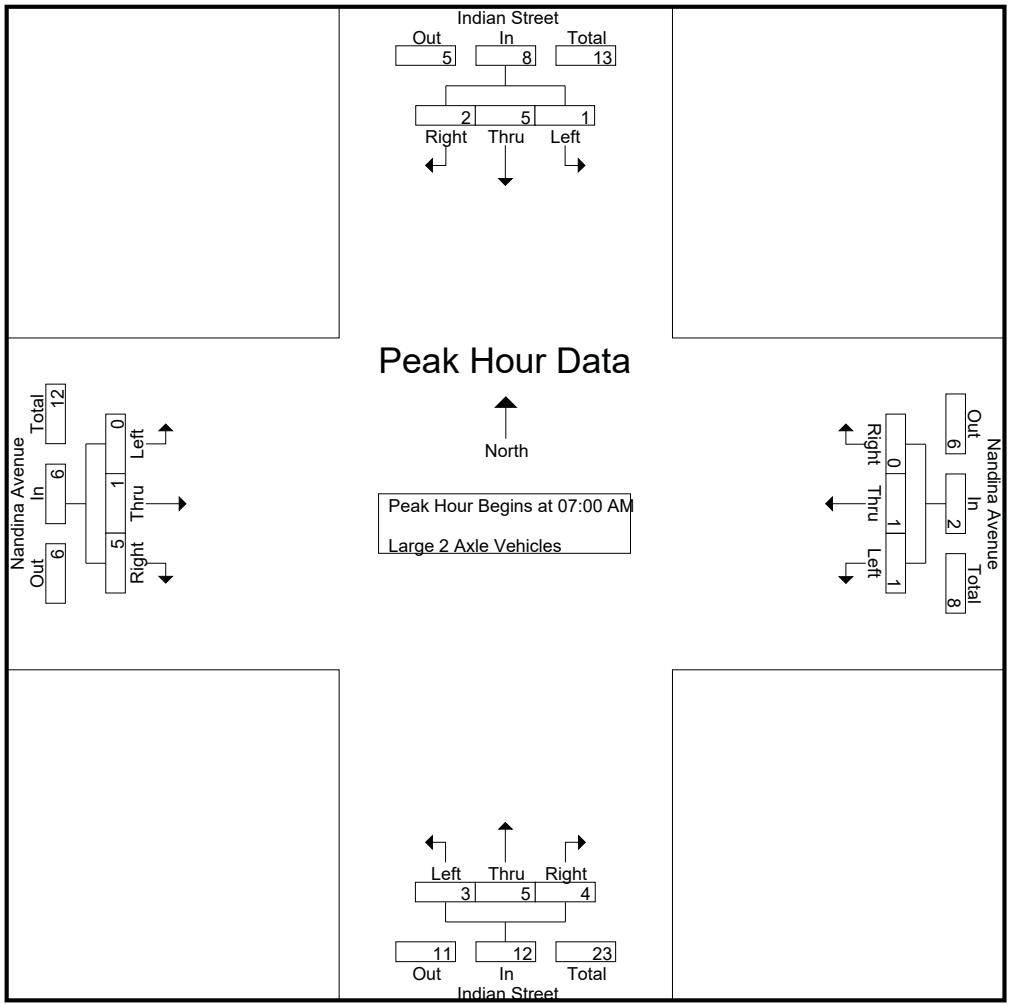
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**1**	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	**1**	1	0	0	0	0	**1**	**4**	1	**6**	0	0	1	1	
+30 mins.	0	1	1	2	0	**1**	0	**1**	1	1	0	2	0	0	**2**	2	
+45 mins.	0	**4**	0	**4**	**1**	0	0	1	1	0	**3**	4	0	**1**	2	**3**	
Total Volume	1	5	2	8	1	1	0	2	3	5	4	12	0	1	5	6	
% App. Total	12.5	62.5	25		50	50	0		25	41.7	33.3		0	16.7	83.3		
PHF	.250	.313	.500	.500	.250	.250	.000	.500	.750	.313	.333	.500	.000	.250	.625	.500	

Packet Pg. 1694

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Indian Street Southbound					Nandina Avenue Westbound					Indian Street Northbound					Nandina Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	0	3	3
07:15 AM	0	1	0	0	1	0	0	1	1	1	1	0	0	0	1	0	0	1	1	1	2	4	6
07:30 AM	0	1	0	0	1	0	0	0	0	0	1	0	1	1	2	0	0	0	0	0	1	3	4
07:45 AM	0	0	0	0	0	3	0	0	0	3	1	0	0	0	1	0	0	2	2	2	2	6	8
Total	0	2	0	0	2	3	0	1	1	4	5	0	1	1	6	0	1	3	3	4	5	16	21
08:00 AM	1	1	0	0	2	1	0	0	0	1	2	1	1	1	4	0	0	0	0	0	1	7	8
08:15 AM	0	0	1	1	1	0	0	2	2	2	1	0	0	0	1	0	0	1	0	1	3	5	8
08:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	0	0	2	1	2	1	5	6
08:45 AM	1	0	0	0	1	1	0	0	0	1	1	0	1	0	2	0	0	3	3	3	3	7	10
Total	2	2	1	1	5	2	0	2	2	4	4	2	3	1	9	0	0	6	4	6	8	24	32
Grand Total	2	4	1	1	7	5	0	3	3	8	9	2	4	2	15	0	1	9	7	10	13	40	53
Apprch %	28.6	57.1	14.3			62.5	0	37.5			60	13.3	26.7			0	10	90					
Total %	5	10	2.5		17.5	12.5	0	7.5		20	22.5	5	10		37.5	0	2.5	22.5		25	24.5	75.5	

3.1-150

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	**2**	0	0	**2**	0	**1**	0	1	3
07:15 AM	0	**1**	0	**1**	0	0	**1**	1	1	0	0	1	0	0	1	1	4
07:30 AM	0	1	0	1	0	0	0	0	1	0	**1**	2	0	0	0	0	3
07:45 AM	0	0	0	0	**3**	0	0	**3**	1	0	0	1	0	0	**2**	**2**	**6**
Total Volume	0	2	0	2	3	0	1	4	5	0	1	6	0	1	3	4	16
% App. Total	0	100	0		75	0	25		83.3	0	16.7		0	25	75		
PHF	.000	.500	.000	.500	.250	.000	.250	.333	.625	.000	.250	.750	.000	.250	.375	.500	.667

Packet Pg. 1695

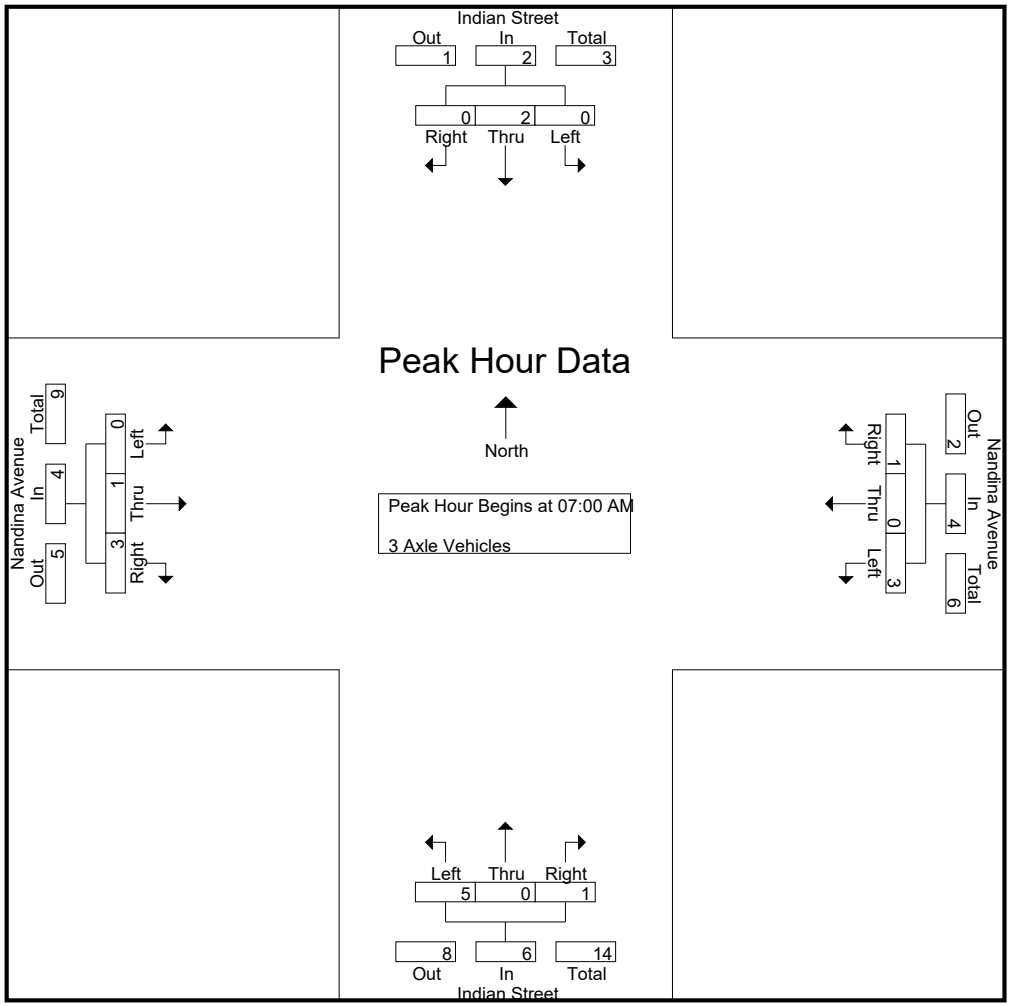
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	**2**	0	0	**2**	0	**1**	0	1	
+15 mins.	0	**1**	0	**1**	0	0	**1**	1	1	0	0	1	0	0	1	1	
+30 mins.	0	1	0	1	0	0	0	0	1	0	**1**	2	0	0	0	0	
+45 mins.	0	0	0	0	**3**	0	0	**3**	1	0	0	1	0	0	**2**	**2**	
Total Volume	0	2	0	2	3	0	1	4	5	0	1	6	0	1	3	4	
% App. Total	0	100	0		75	0	25		83.3	0	16.7		0	25	75		
PHF	.000	.500	.000	.500	.250	.000	.250	.333	.625	.000	.250	.750	.000	.250	.375	.500	

Packet Pg. 1697

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Indian Street Southbound					Nandina Avenue Westbound					Indian Street Northbound					Nandina Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	2	0	0	2	0	1	0	0	1	2	4	1	1	7	0	1	3	0	4	1	14	15
07:15 AM	0	0	0	0	0	1	1	0	0	2	1	2	0	0	3	0	0	5	4	5	4	10	14
07:30 AM	1	0	0	0	1	1	0	1	0	2	0	1	2	0	3	0	1	4	1	5	1	11	12
07:45 AM	0	0	0	0	0	2	0	0	0	2	3	0	0	0	3	0	1	3	0	4	0	9	9
Total	1	2	0	0	3	4	2	1	0	7	6	7	3	1	16	0	3	15	5	18	6	44	50
08:00 AM	2	4	0	0	6	0	0	0	0	0	7	4	0	0	11	0	1	2	1	3	1	20	21
08:15 AM	0	1	1	1	2	0	1	1	1	2	3	0	0	0	3	0	0	2	1	2	3	9	12
08:30 AM	0	1	1	0	2	0	0	0	0	0	9	3	0	0	12	1	2	2	1	5	1	19	20
08:45 AM	0	1	3	2	4	1	2	0	0	3	2	1	2	0	5	1	1	4	2	6	4	18	22
Total	2	7	5	3	14	1	3	1	1	5	21	8	2	0	31	2	4	10	5	16	9	66	75
Grand Total	3	9	5	3	17	5	5	2	1	12	27	15	5	1	47	2	7	25	10	34	15	110	125
Apprch %	17.6	52.9	29.4			41.7	41.7	16.7			57.4	31.9	10.6			5.9	20.6	73.5					
Total %	2.7	8.2	4.5		15.5	4.5	4.5	1.8		10.9	24.5	13.6	4.5		42.7	1.8	6.4	22.7		30.9	12	88	

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**2**	0	**2**	0	**1**	0	1	2	**4**	1	**7**	0	**1**	3	4	**14**
07:15 AM	0	0	0	0	1	1	0	**2**	1	2	0	3	0	0	**5**	**5**	10
07:30 AM	**1**	0	0	1	1	0	**1**	2	0	1	**2**	3	0	1	4	5	11
07:45 AM	0	0	0	0	**2**	0	0	2	**3**	0	0	3	0	1	3	4	9
Total Volume	1	2	0	3	4	2	1	7	6	7	3	16	0	3	15	18	44
% App. Total	33.3	66.7	0		57.1	28.6	14.3		37.5	43.8	18.8		0	16.7	83.3		
PHF	.250	.250	.000	.375	.500	.500	.250	.875	.500	.438	.375	.571	.000	.750	.750	.900	.786

Packet Pg. 1698

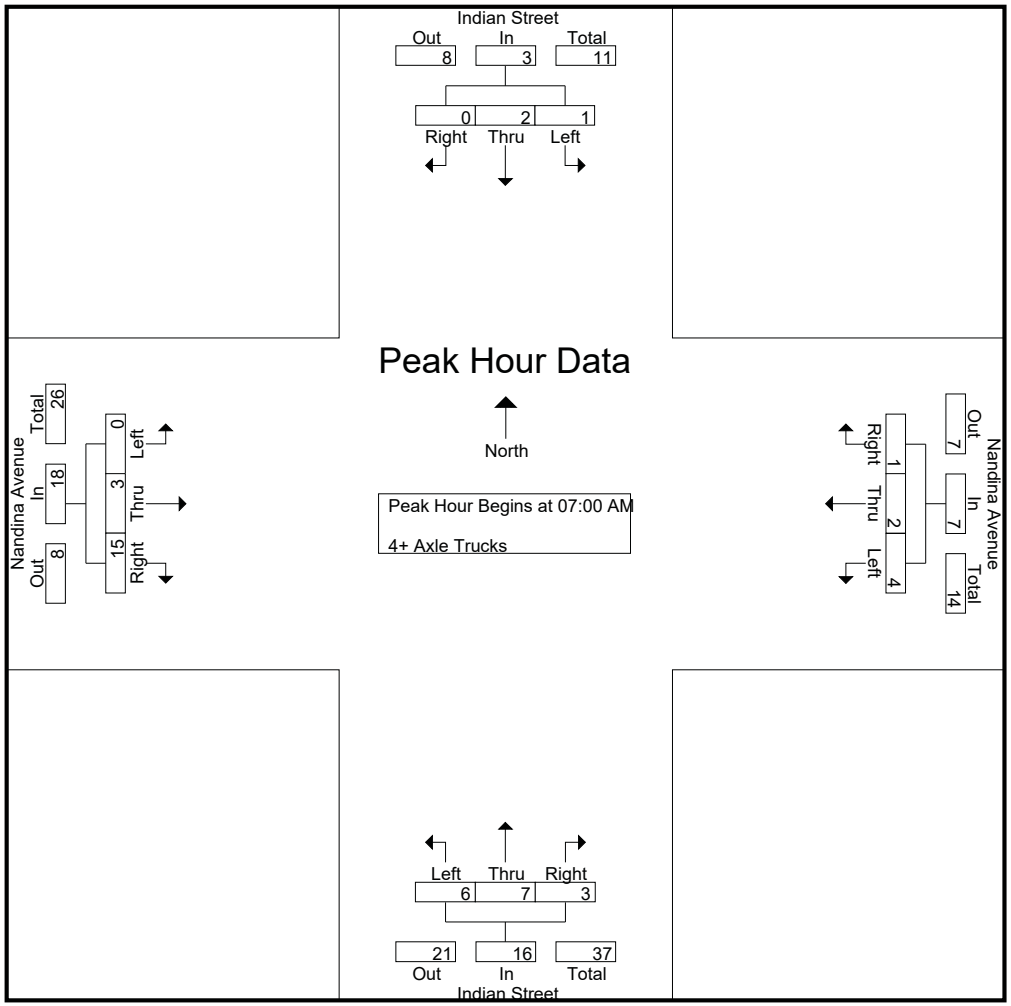
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	**2**	0	**2**	0	**1**	0	1	2	**4**	1	**7**	0	**1**	3	4	
+15 mins.	0	0	0	0	1	1	0	**2**	1	2	0	3	0	0	**5**	**5**	
+30 mins.	**1**	0	0	1	1	0	**1**	2	0	1	**2**	3	0	1	4	5	
+45 mins.	0	0	0	0	**2**	0	0	2	**3**	0	0	3	0	1	3	4	
Total Volume	1	2	0	3	4	2	1	7	6	7	3	16	0	3	15	18	
% App. Total	33.3	66.7	0		57.1	28.6	14.3		37.5	43.8	18.8		0	16.7	83.3		
PHF	.250	.250	.000	.375	.500	.500	.250	.875	.500	.438	.375	.571	.000	.750	.750	.900	

Packet Pg. 1700

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Indian Street Southbound					Nandina Avenue Westbound					Indian Street Northbound					Nandina Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	4	20	9	3	33	9	1	1	1	11	20	47	5	0	72	1	11	30	19	42	23	158	181
04:15 PM	4	16	6	4	26	11	10	7	5	28	21	66	5	4	92	5	11	33	19	49	32	195	227
04:30 PM	23	89	14	6	126	14	4	11	9	29	28	71	14	8	113	8	16	66	39	90	62	358	420
04:45 PM	28	86	13	8	127	14	4	10	10	28	18	72	11	6	101	1	27	90	41	118	65	374	439
Total	59	211	42	21	312	48	19	29	25	96	87	256	35	18	378	15	65	219	118	299	182	1085	1267
05:00 PM	9	24	9	6	42	17	4	2	1	23	16	51	13	8	80	1	22	42	30	65	45	210	255
05:15 PM	3	23	7	6	33	19	7	2	0	28	7	57	3	0	67	2	7	37	26	46	32	174	206
05:30 PM	2	51	3	2	56	9	1	5	4	15	10	100	7	2	117	6	25	106	59	137	67	325	392
05:45 PM	6	30	6	4	42	3	8	8	6	19	25	106	2	1	133	3	26	84	50	113	61	307	368
Total	20	128	25	18	173	48	20	17	11	85	58	314	25	11	397	12	80	269	165	361	205	1016	1221
Grand Total	79	339	67	39	485	96	39	46	36	181	145	570	60	29	775	27	145	488	283	660	387	2101	2488
Apprch %	16.3	69.9	13.8			53	21.5	25.4			18.7	73.5	7.7			4.1	22	73.9					
Total %	3.8	16.1	3.2		23.1	4.6	1.9	2.2		8.6	6.9	27.1	2.9		36.9	1.3	6.9	23.2		31.4	15.6	84.4	
Passenger Vehicles	78	323	39		459	63	33	42		171	136	545	52		760	24	136	468		899	0	0	2289
% Passenger Vehicles	98.7	95.3	58.2	48.7	87.6	65.6	84.6	91.3	91.7	78.8	93.8	95.6	86.7	93.1	94.5	88.9	93.8	95.9	95.8	95.3	0	0	92
Large 2 Axle Vehicles	0	5	22		42	2	1	2		6	1	5	1		7	1	2	3		7	0	0	62
% Large 2 Axle Vehicles	0	1.5	32.8	38.5	8	2.1	2.6	4.3	2.8	2.8	0.7	0.9	1.7	0	0.9	3.7	1.4	0.6	0.4	0.7	0	0	2.5
3 Axle Vehicles	1	3	2		8	5	3	1		10	1	14	3		18	2	2	4		11	0	0	47
% 3 Axle Vehicles	1.3	0.9	3	5.1	1.5	5.2	7.7	2.2	2.8	4.6	0.7	2.5	5	0	2.2	7.4	1.4	0.8	1.1	1.2	0	0	1.9
4+ Axle Trucks	0	8	4		15	26	2	1		30	7	6	4		19	0	5	13		26	0	0	90
% 4+ Axle Trucks	0	2.4	6	7.7	2.9	27.1	5.1	2.2	2.8	13.8	4.8	1.1	6.7	6.9	2.4	0	3.4	2.7	2.8	2.8	0	0	3.6

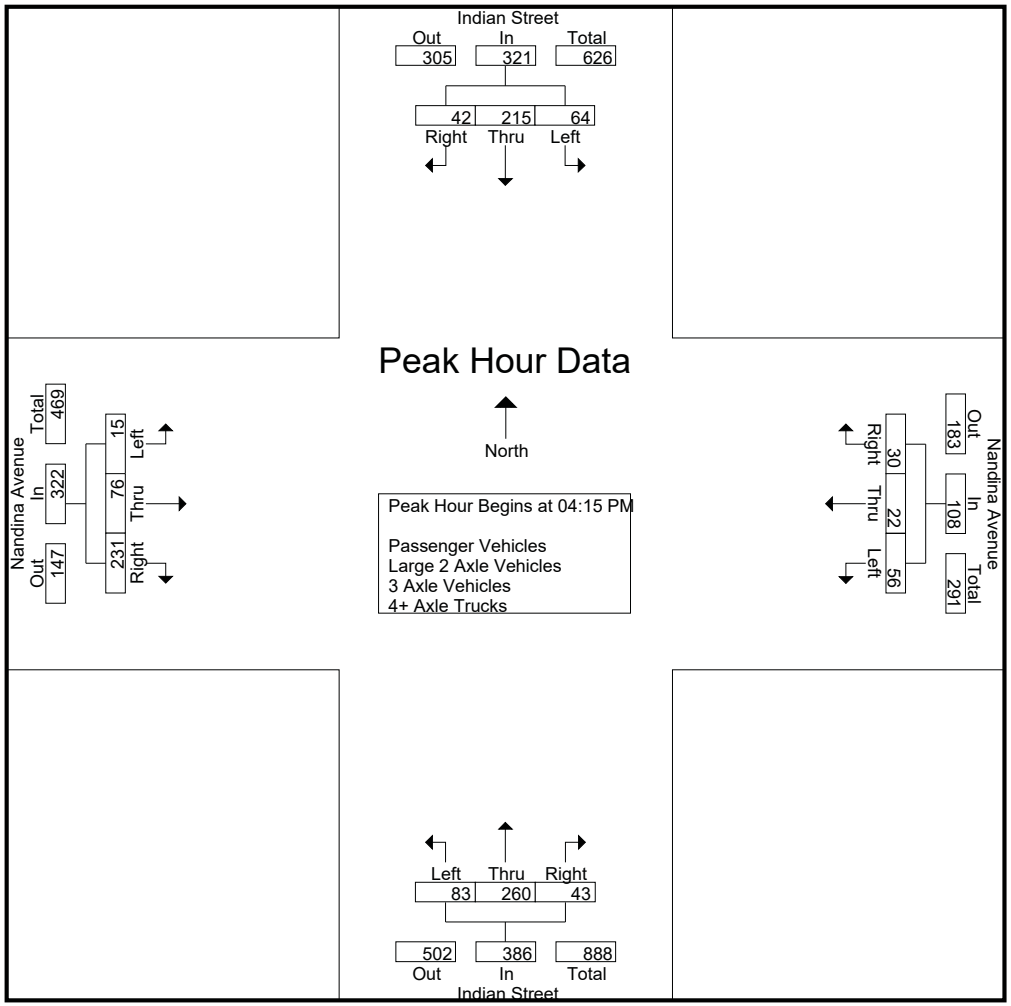
	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	4	16	6	26	11	**10**	7	28	21	66	5	92	5	11	33	49	195
04:30 PM	23	**89**	**14**	126	14	4	**11**	**29**	**28**	71	**14**	**113**	**8**	16	66	90	358
04:45 PM	**28**	86	13	**127**	14	4	10	28	18	**72**	11	101	1	**27**	**90**	**118**	**374**
05:00 PM	9	24	9	42	**17**	4	2	23	16	51	13	80	1	22	42	65	210
Total Volume	64	215	42	321	56	22	30	108	83	260	43	386	15	76	231	322	1137
% App. Total	19.9	67	13.1		51.9	20.4	27.8		21.5	67.4	11.1		4.7	23.6	71.7		
PHF	.571	.604	.750	.632	.824	.550	.682	.931	.741	.903	.768	.854	.469	.704	.642	.682	.760

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:15 PM				05:00 PM				04:45 PM				
+0 mins.	23	**89**	**14**	126	11	**10**	7	28	16	51	**13**	80	1	**27**	90	118	
+15 mins.	**28**	86	13	**127**	14	4	**11**	**29**	7	57	3	67	1	22	42	65	
+30 mins.	9	24	9	42	14	4	10	28	10	100	7	117	2	7	37	46	
+45 mins.	3	23	7	33	**17**	4	2	23	**25**	**106**	2	**133**	**6**	25	**106**	**137**	
Total Volume	63	222	43	328	56	22	30	108	58	314	25	397	10	81	275	366	
% App. Total	19.2	67.7	13.1		51.9	20.4	27.8		14.6	79.1	6.3		2.7	22.1	75.1		
PHF	.563	.624	.768	.646	.824	.550	.682	.931	.580	.741	.481	.746	.417	.750	.649	.668	

Packet Pg. 1703

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles

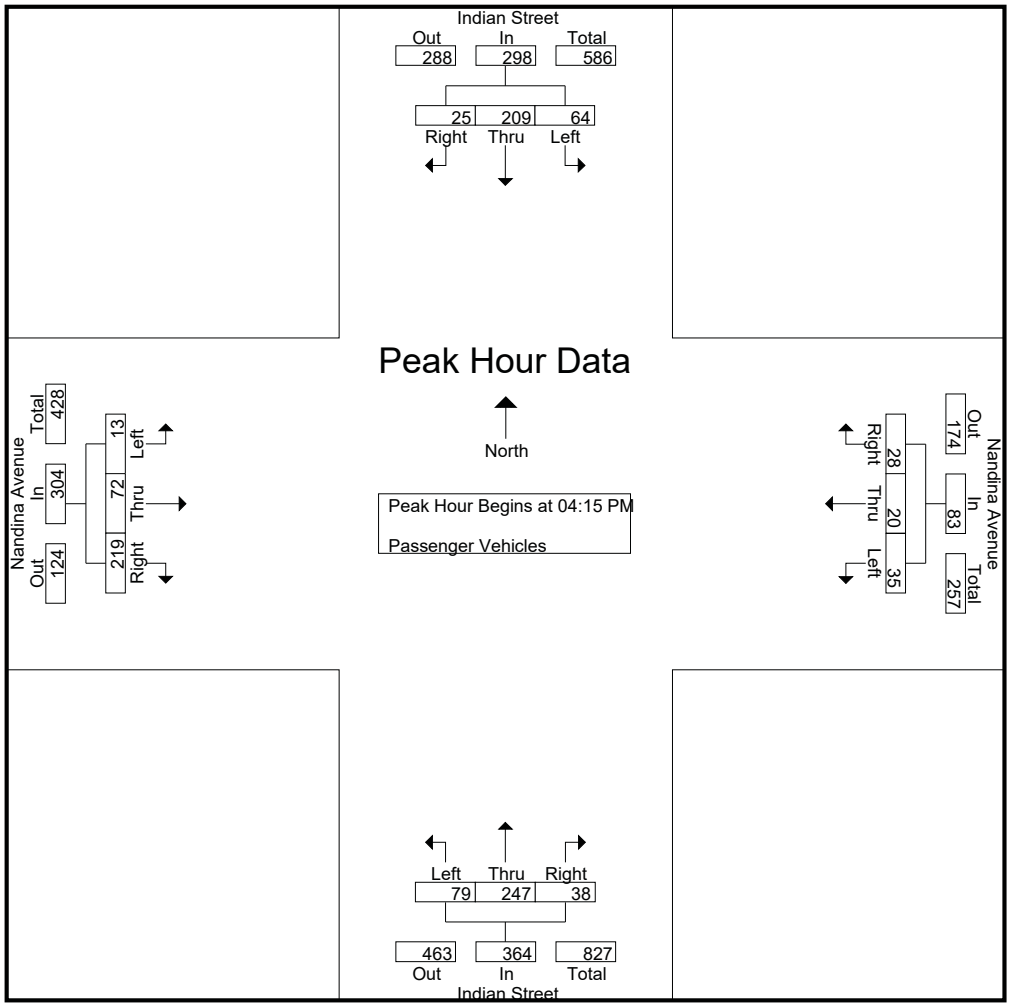
	Indian Street Southbound					Nandina Avenue Westbound					Indian Street Northbound					Nandina Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	4	19	6	1	29	7	1	1	1	9	16	44	4	0	64	0	9	25	17	34	19	136	155
04:15 PM	4	14	1	0	19	6	9	6	4	21	21	63	4	4	88	4	11	27	15	42	23	170	193
04:30 PM	23	86	10	6	119	11	4	11	9	26	27	68	12	7	107	7	15	65	38	87	60	339	399
04:45 PM	28	85	9	4	122	8	3	9	9	20	15	66	11	6	92	1	25	85	38	111	57	345	402
Total	59	204	26	11	289	32	17	27	23	76	79	241	31	17	351	12	60	202	108	274	159	990	1149
05:00 PM	9	24	5	3	38	10	4	2	1	16	16	50	11	7	77	1	21	42	30	64	41	195	236
05:15 PM	3	20	3	2	26	13	4	2	0	19	7	55	2	0	64	2	6	36	25	44	27	153	180
05:30 PM	2	48	2	1	52	6	1	3	3	10	10	96	7	2	113	6	24	105	58	135	64	310	374
05:45 PM	5	27	3	2	35	2	7	8	6	17	24	103	1	1	128	3	25	83	50	111	59	291	350
Total	19	119	13	8	151	31	16	15	10	62	57	304	21	10	382	12	76	266	163	354	191	949	1140
Grand Total	78	323	39	19	440	63	33	42	33	138	136	545	52	27	733	24	136	468	271	628	350	1939	2289
Apprch %	17.7	73.4	8.9			45.7	23.9	30.4			18.6	74.4	7.1			3.8	21.7	74.5					
Total %	4	16.7	2		22.7	3.2	1.7	2.2		7.1	7	28.1	2.7		37.8	1.2	7	24.1		32.4	15.3	84.7	

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	4	14	1	19	6	**9**	6	21	21	63	4	88	4	11	27	42	170
04:30 PM	23	**86**	**10**	119	**11**	4	**11**	**26**	**27**	**68**	**12**	**107**	**7**	15	65	87	339
04:45 PM	**28**	85	9	**122**	8	3	9	20	15	66	11	92	1	**25**	**85**	**111**	**345**
05:00 PM	9	24	5	38	10	4	2	16	16	50	11	77	1	21	42	64	195
Total Volume	64	209	25	298	35	20	28	83	79	247	38	364	13	72	219	304	1049
% App. Total	21.5	70.1	8.4		42.2	24.1	33.7		21.7	67.9	10.4		4.3	23.7	72		
PHF	.571	.608	.625	.611	.795	.556	.636	.798	.731	.908	.792	.850	.464	.720	.644	.685	.760

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1705

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	4	14	1	19	6	**9**	6	21	21	63	4	88	4	11	27	42	
+15 mins.	23	**86**	**10**	119	**11**	4	**11**	**26**	**27**	**68**	**12**	**107**	**7**	15	65	87	
+30 mins.	**28**	85	9	**122**	8	3	9	20	15	66	11	92	1	**25**	**85**	**111**	
+45 mins.	9	24	5	38	10	4	2	16	16	50	11	77	1	21	42	64	
Total Volume	64	209	25	298	35	20	28	83	79	247	38	364	13	72	219	304	
% App. Total	21.5	70.1	8.4		42.2	24.1	33.7		21.7	67.9	10.4		4.3	23.7	72		
PHF	.571	.608	.625	.611	.795	.556	.636	.798	.731	.908	.792	.850	.464	.720	.644	.685	

Packet Pg. 1706

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

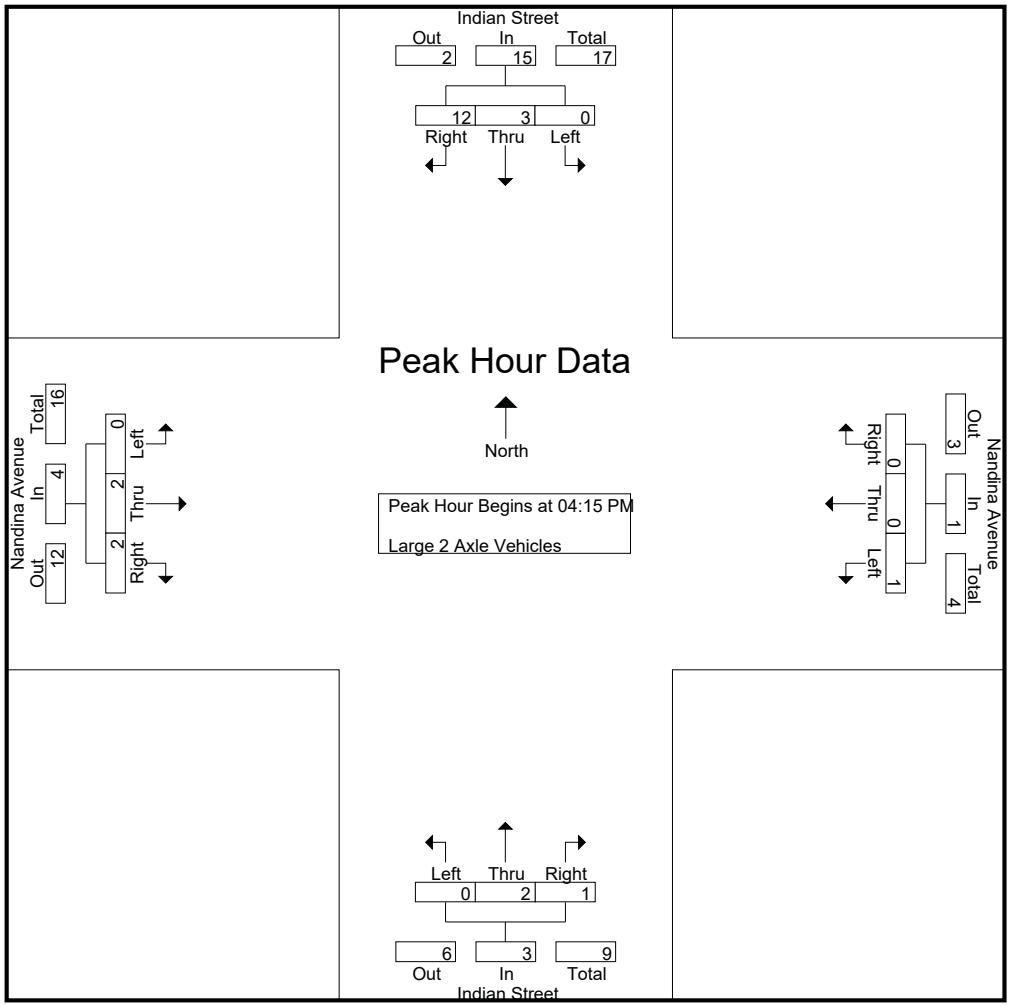
	Indian Street Southbound					Nandina Avenue Westbound					Indian Street Northbound					Nandina Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	3	2	4	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	2	6	8
04:15 PM	0	1	3	2	4	1	0	0	0	1	0	2	0	0	2	0	0	1	0	1	2	8	10
04:30 PM	0	2	3	0	5	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	7	7
04:45 PM	0	0	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	4	4	8
Total	0	4	12	7	16	1	0	0	0	1	1	2	1	0	4	1	1	2	1	4	8	25	33
05:00 PM	0	0	3	2	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	4	6
05:15 PM	0	0	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	6
05:30 PM	0	1	1	1	2	1	0	2	1	3	0	2	0	0	2	0	0	0	0	0	2	7	9
05:45 PM	0	0	3	2	3	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	2	6	8
Total	0	1	10	8	11	1	1	2	1	4	0	3	0	0	3	0	1	1	0	2	9	20	29
Grand Total	0	5	22	15	27	2	1	2	1	5	1	5	1	0	7	1	2	3	1	6	17	45	62
Apprch %	0	18.5	81.5			40	20	40			14.3	71.4	14.3			16.7	33.3	50					
Total %	0	11.1	48.9		60	4.4	2.2	4.4		11.1	2.2	11.1	2.2		15.6	2.2	4.4	6.7		13.3	27.4	72.6	

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	1	**3**	4	**1**	0	0	**1**	0	**2**	0	**2**	0	0	**1**	**1**	**8**
04:30 PM	0	**2**	3	**5**	0	0	0	0	0	0	**1**	1	0	**1**	0	1	7
04:45 PM	0	0	3	3	0	0	0	0	0	0	0	0	0	0	1	1	4
05:00 PM	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	1	4
Total Volume	0	3	12	15	1	0	0	1	0	2	1	3	0	2	2	4	23
% App. Total	0	20	80		100	0	0		0	66.7	33.3		0	50	50		
PHF	.000	.375	1.00	.750	.250	.000	.000	.250	.000	.250	.250	.375	.000	.500	.500	1.00	.719

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	1	**3**	4	**1**	0	0	**1**	0	**2**	0	**2**	0	0	**1**	**1**	
+15 mins.	0	**2**	3	**5**	0	0	0	0	0	0	**1**	1	0	**1**	0	1	
+30 mins.	0	0	3	3	0	0	0	0	0	0	0	0	0	0	1	1	
+45 mins.	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	1	
Total Volume	0	3	12	15	1	0	0	1	0	2	1	3	0	2	2	4	
% App. Total	0	20	80		100	0	0		0	66.7	33.3		0	50	50		
PHF	.000	.375	1.000	.750	.250	.000	.000	.250	.000	.250	.250	.375	.000	.500	.500	1.000	

Packet Pg. 1709

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Indian Street Southbound					Nandina Avenue Westbound					Indian Street Northbound					Nandina Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	2	1	0	4	0	0	2	1	2	1	6	7
04:15 PM	0	1	1	1	2	0	1	0	0	1	0	1	0	0	1	1	0	1	1	2	2	6	8
04:30 PM	0	0	0	0	0	2	0	0	0	2	0	2	0	0	2	1	0	0	0	1	0	5	5
04:45 PM	0	0	1	1	1	0	1	1	1	2	0	3	0	0	3	0	1	1	1	2	3	8	11
Total	0	1	2	2	3	2	2	1	1	5	1	8	1	0	10	2	1	4	3	7	6	25	31
05:00 PM	0	0	0	0	0	1	0	0	0	1	0	1	1	0	2	0	0	0	0	0	0	3	3
05:15 PM	0	0	0	0	0	2	1	0	0	3	0	1	0	0	1	0	0	0	0	0	0	4	4
05:30 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	3
05:45 PM	1	1	0	0	2	0	0	0	0	0	0	2	1	0	3	0	1	0	0	1	0	6	6
Total	1	2	0	0	3	3	1	0	0	4	0	6	2	0	8	0	1	0	0	1	0	16	16
Grand Total	1	3	2	2	6	5	3	1	1	9	1	14	3	0	18	2	2	4	3	8	6	41	47
Apprch %	16.7	50	33.3			55.6	33.3	11.1			5.6	77.8	16.7			25	25	50					
Total %	2.4	7.3	4.9		14.6	12.2	7.3	2.4		22	2.4	34.1	7.3		43.9	4.9	4.9	9.8		19.5	12.8	87.2	

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	**1**	**1**	**2**	0	**1**	0	1	0	1	0	1	**1**	0	**1**	**2**	6
04:30 PM	0	0	0	0	**2**	0	0	**2**	0	2	0	2	1	0	0	1	5
04:45 PM	0	0	1	1	0	1	**1**	2	0	**3**	0	**3**	0	**1**	1	2	**8**
05:00 PM	0	0	0	0	1	0	0	1	0	1	**1**	2	0	0	0	0	3
Total Volume	0	1	2	3	3	2	1	6	0	7	1	8	2	1	2	5	22
% App. Total	0	33.3	66.7		50	33.3	16.7		0	87.5	12.5		40	20	40		
PHF	.000	.250	.500	.375	.375	.500	.250	.750	.000	.583	.250	.667	.500	.250	.500	.625	.688

Packet Pg. 1710

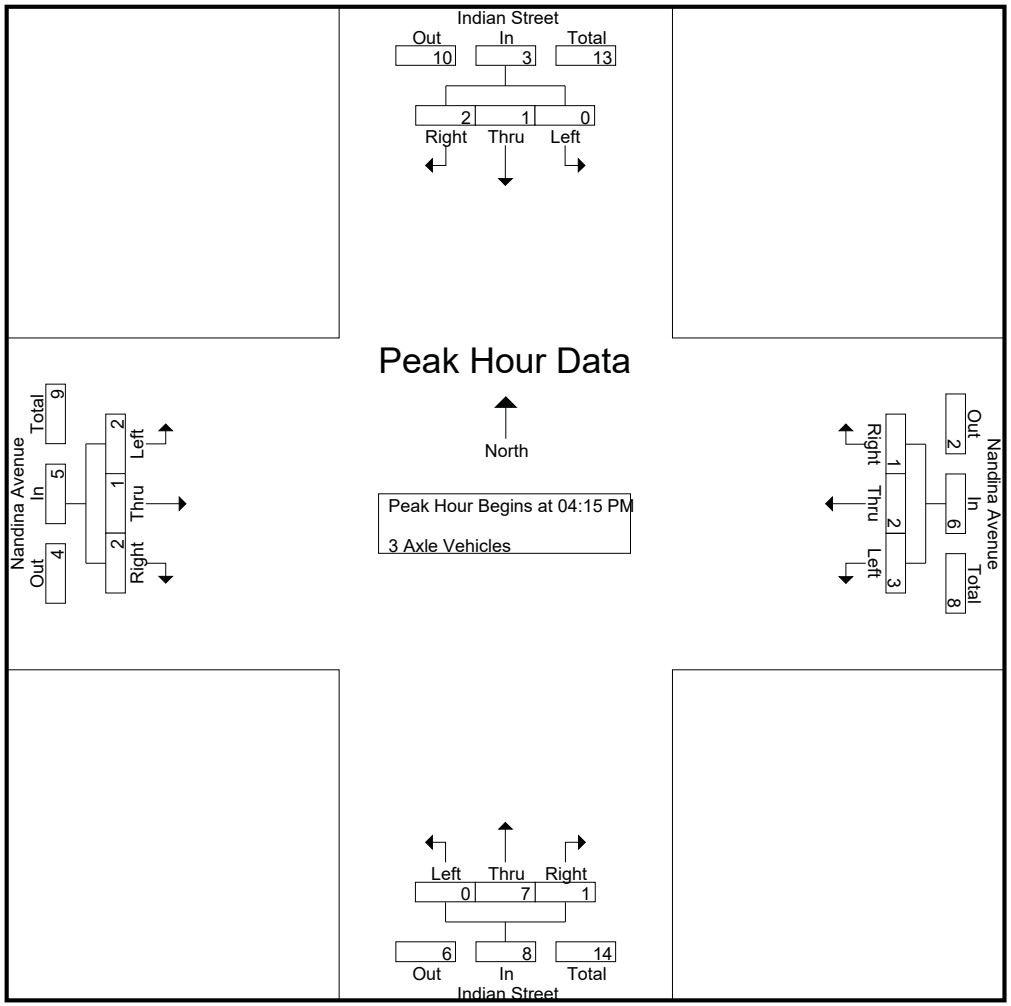
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1711

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	**1**	**1**	**2**	0	**1**	0	1	0	1	0	1	**1**	0	**1**	**2**	
+15 mins.	0	0	0	0	**2**	0	0	**2**	0	2	0	2	1	0	0	1	
+30 mins.	0	0	1	1	0	1	**1**	2	0	**3**	0	**3**	0	**1**	1	2	
+45 mins.	0	0	0	0	1	0	0	1	0	1	**1**	2	0	0	0	0	
Total Volume	0	1	2	3	3	2	1	6	0	7	1	8	2	1	2	5	
% App. Total	0	33.3	66.7		50	33.3	16.7		0	87.5	12.5		40	20	40		
PHF	.000	.250	.500	.375	.375	.500	.250	.750	.000	.583	.250	.667	.500	.250	.500	.625	

Packet Pg. 1712

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Indian Street Southbound					Nandina Avenue Westbound					Indian Street Northbound					Nandina Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	2	0	0	0	2	2	1	0	0	3	0	2	3	1	5	1	10	11
04:15 PM	0	0	1	1	1	4	0	1	1	5	0	0	1	0	1	0	0	4	3	4	5	11	16
04:30 PM	0	1	1	0	2	1	0	0	0	1	1	1	1	1	3	0	0	1	1	1	2	7	9
04:45 PM	0	1	0	0	1	6	0	0	0	6	3	3	0	0	6	0	1	3	1	4	1	17	18
Total	0	2	2	1	4	13	0	1	1	14	6	5	2	1	13	0	3	11	6	14	9	45	54
05:00 PM	0	0	1	1	1	6	0	0	0	6	0	0	1	1	1	0	0	0	0	0	2	8	10
05:15 PM	0	3	1	1	4	4	2	0	0	6	0	1	1	0	2	0	1	1	1	2	2	14	16
05:30 PM	0	1	0	0	1	2	0	0	0	2	0	0	0	0	0	0	1	1	1	2	1	5	6
05:45 PM	0	2	0	0	2	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	4	4
Total	0	6	2	2	8	13	2	0	0	15	1	1	2	1	4	0	2	2	2	4	5	31	36
Grand Total	0	8	4	3	12	26	2	1	1	29	7	6	4	2	17	0	5	13	8	18	14	76	90
Apprch %	0	66.7	33.3			89.7	6.9	3.4			41.2	35.3	23.5			0	27.8	72.2					
Total %	0	10.5	5.3		15.8	34.2	2.6	1.3		38.2	9.2	7.9	5.3		22.4	0	6.6	17.1		23.7	15.6	84.4	

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	**1**	1	4	0	**1**	5	0	0	**1**	1	0	0	**4**	**4**	11
04:30 PM	0	**1**	1	**2**	1	0	0	1	1	1	1	3	0	0	1	1	7
04:45 PM	0	1	0	1	**6**	0	0	**6**	**3**	**3**	0	**6**	0	**1**	3	4	**17**
05:00 PM	0	0	1	1	6	0	0	6	0	0	1	1	0	0	0	0	8
Total Volume	0	2	3	5	17	0	1	18	4	4	3	11	0	1	8	9	43
% App. Total	0	40	60		94.4	0	5.6		36.4	36.4	27.3		0	11.1	88.9		
PHF	.000	.500	.750	.625	.708	.000	.250	.750	.333	.333	.750	.458	.000	.250	.500	.563	.632

Packet Pg. 1713

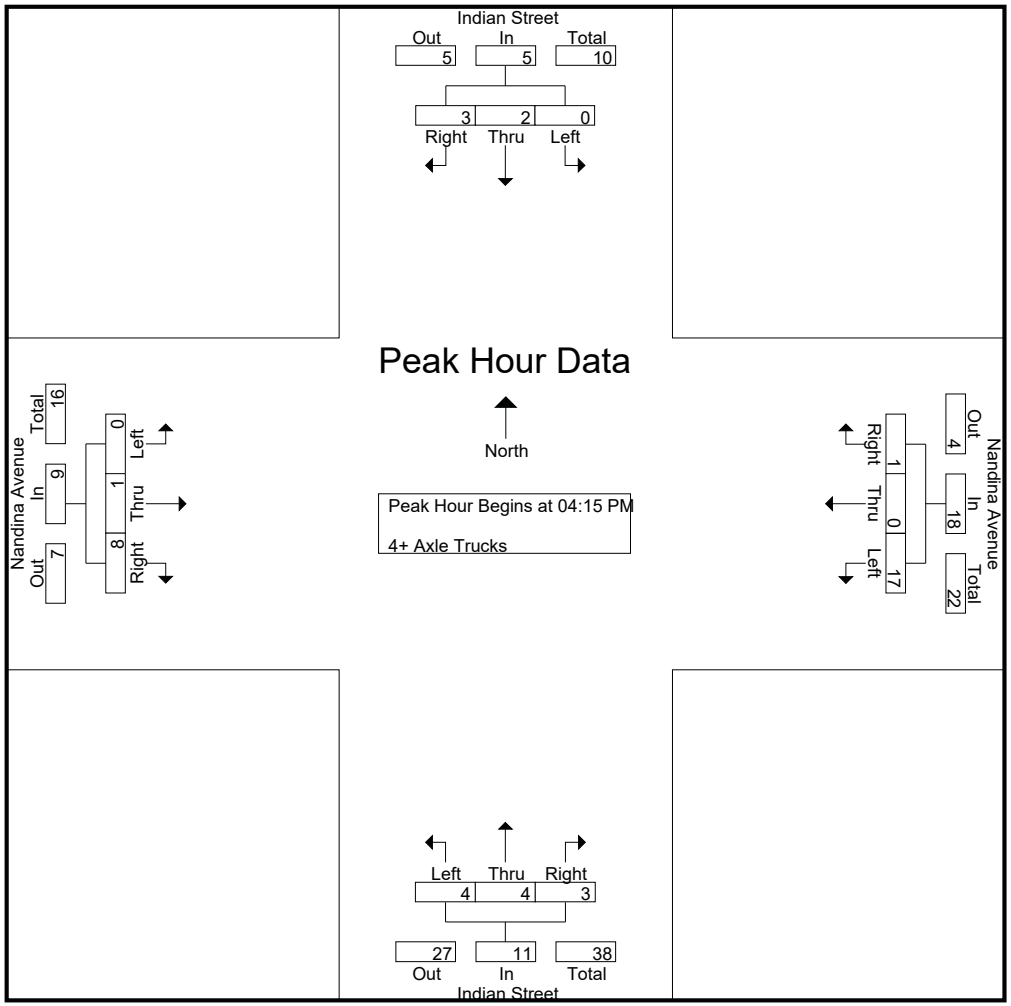
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Nandina Avenue Westbound				Indian Street Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	**1**	1	4	0	**1**	5	0	0	**1**	1	0	0	**4**	**4**	
+15 mins.	0	**1**	1	**2**	1	0	0	1	1	1	1	3	0	0	1	1	
+30 mins.	0	1	0	1	**6**	0	0	**6**	**3**	**3**	0	**6**	0	**1**	3	4	
+45 mins.	0	0	1	1	6	0	0	6	0	0	1	1	0	0	0	0	
Total Volume	0	2	3	5	17	0	1	18	4	4	3	11	0	1	8	9	
% App. Total	0	40	60		94.4	0	5.6		36.4	36.4	27.3		0	11.1	88.9		
PHF	.000	.500	.750	.625	.708	.000	.250	.750	.333	.333	.750	.458	.000	.250	.500	.563	

Packet Pg. 1715

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Location: Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

PEDESTRIANS

	North Leg Indian Street	East Leg Nandina Avenue	South Leg Indian Street	West Leg Nandina Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	1	1	0	0	2
7:45 AM	0	0	0	0	0
8:00 AM	2	0	0	0	2
8:15 AM	2	0	0	0	2
8:30 AM	0	0	0	0	0
8:45 AM	0	3	0	0	3
TOTAL VOLUMES:	5	4	0	0	9

	North Leg Indian Street	East Leg Nandina Avenue	South Leg Indian Street	West Leg Nandina Avenue	TOTAL
4:00 PM	1	0	0	0	1
4:15 PM	1	0	0	0	1
4:30 PM	15	6	0	0	21
4:45 PM	15	3	1	1	20
5:00 PM	4	2	0	0	6
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	3	1	0	0	4
TOTAL VOLUMES:	39	12	1	1	53

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Location: Moreno Valley
N/S: Indian Street
E/W: Nandina Avenue

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

BICYCLES

	North Leg Indian Street	East Leg Nandina Avenue	South Leg Indian Street	West Leg Nandina Avenue	TOTAL
7:00 AM	0	0	0	1	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	1

	North Leg Indian Street	East Leg Nandina Avenue	South Leg Indian Street	West Leg Nandina Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	53	53	2	2	4	53	4	57	114
07:15 AM	0	34	34	3	0	3	70	5	75	112
07:30 AM	1	33	34	5	2	7	71	1	72	113
07:45 AM	0	45	45	1	0	1	89	8	97	143
Total	1	165	166	11	4	15	283	18	301	482
08:00 AM	0	33	33	2	1	3	57	6	63	99
08:15 AM	1	42	43	4	1	5	23	5	28	76
08:30 AM	0	24	24	7	2	9	52	2	54	87
08:45 AM	0	33	33	5	3	8	24	3	27	68
Total	1	132	133	18	7	25	156	16	172	330
Grand Total	2	297	299	29	11	40	439	34	473	812
Apprch %	0.7	99.3		72.5	27.5		92.8	7.2		
Total %	0.2	36.6	36.8	3.6	1.4	4.9	54.1	4.2	58.3	
Passenger Vehicles	2	218	220	17	9	26	367	19	386	632
% Passenger Vehicles	100	73.4	73.6	58.6	81.8	65	83.6	55.9	81.6	77.8
Large 2 Axle Vehicles	0	12	12	6	0	6	15	0	15	33
% Large 2 Axle Vehicles	0	4	4	20.7	0	15	3.4	0	3.2	4.1
3 Axle Vehicles	0	19	19	3	2	5	15	0	15	39
% 3 Axle Vehicles	0	6.4	6.4	10.3	18.2	12.5	3.4	0	3.2	4.8
4+ Axle Trucks	0	48	48	3	0	3	42	15	57	108
% 4+ Axle Trucks	0	16.2	16.1	10.3	0	7.5	9.6	44.1	12.1	13.3

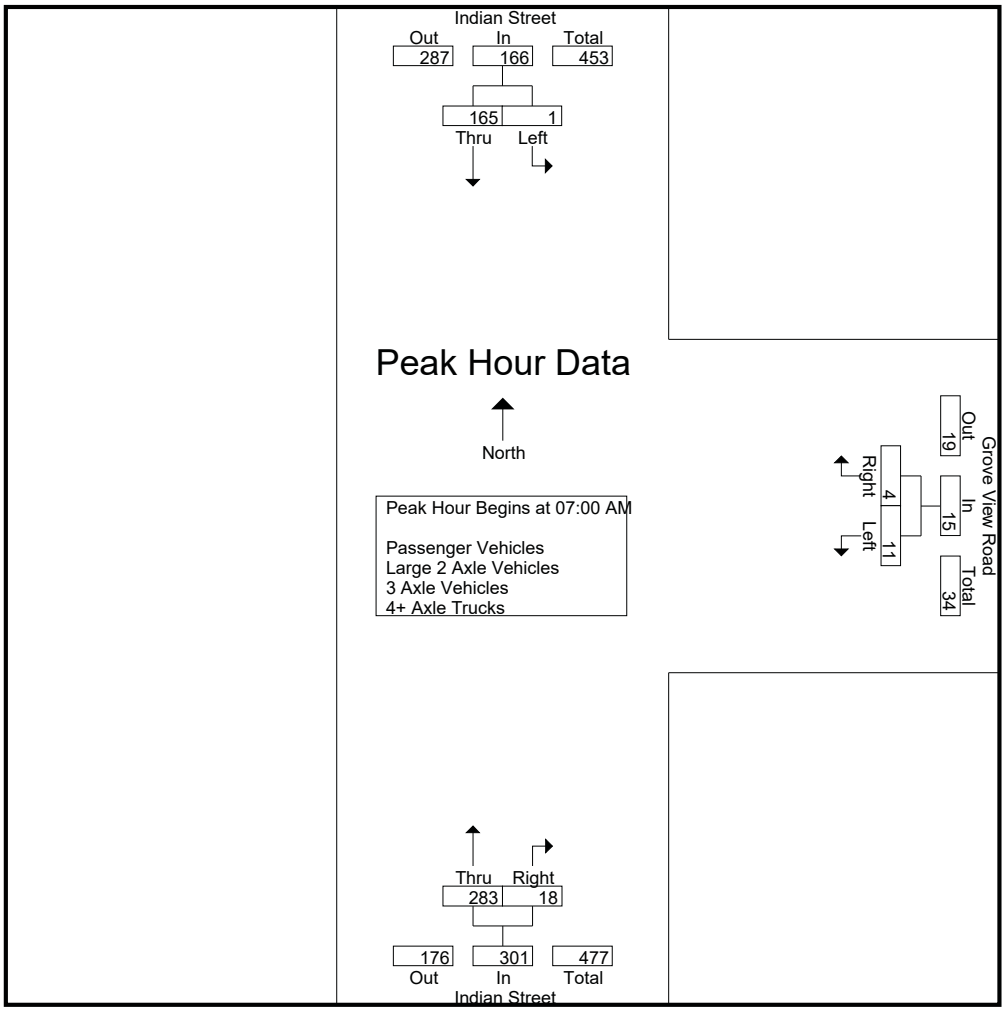
	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**53**	**53**	2	**2**	4	53	4	57	114
07:15 AM	0	34	34	3	0	3	70	5	75	112
07:30 AM	**1**	33	34	**5**	2	**7**	71	1	72	113
07:45 AM	0	45	45	1	0	1	**89**	**8**	**97**	**143**
Total Volume	1	165	166	11	4	15	283	18	301	482
% App. Total	0.6	99.4		73.3	26.7		94	6		
PHF	.250	.778	.783	.550	.500	.536	.795	.563	.776	.843

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			08:00 AM			07:15 AM		
+0 mins.	0	**53**	**53**	2	1	3	70	5	75
+15 mins.	0	34	34	4	1	5	71	1	72
+30 mins.	**1**	33	34	**7**	2	**9**	**89**	**8**	**97**
+45 mins.	0	45	45	5	**3**	8	57	6	63
Total Volume	1	165	166	18	7	25	287	20	307
% App. Total	0.6	99.4		72	28		93.5	6.5	
PHF	.250	.778	.783	.643	.583	.694	.806	.625	.791

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles

	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	45	45	2	2	4	45	1	46	95
07:15 AM	0	25	25	2	0	2	62	3	65	92
07:30 AM	1	24	25	4	1	5	62	1	63	93
07:45 AM	0	31	31	0	0	0	83	7	90	121
Total	1	125	126	8	3	11	252	12	264	401
08:00 AM	0	20	20	0	1	1	45	3	48	69
08:15 AM	1	31	32	0	1	1	18	1	19	52
08:30 AM	0	19	19	4	2	6	34	2	36	61
08:45 AM	0	23	23	5	2	7	18	1	19	49
Total	1	93	94	9	6	15	115	7	122	231
Grand Total	2	218	220	17	9	26	367	19	386	632
Apprch %	0.9	99.1		65.4	34.6		95.1	4.9		
Total %	0.3	34.5	34.8	2.7	1.4	4.1	58.1	3	61.1	

	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**45**	**45**	2	**2**	4	45	1	46	95
07:15 AM	0	25	25	2	0	2	62	3	65	92
07:30 AM	**1**	24	25	**4**	1	**5**	62	1	63	93
07:45 AM	0	31	31	0	0	0	**83**	**7**	**90**	**121**
Total Volume	1	125	126	8	3	11	252	12	264	401
% App. Total	0.8	99.2		72.7	27.3		95.5	4.5		
PHF	.250	.694	.700	.500	.375	.550	.759	.429	.733	.829

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
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(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRAM
Site Code : 05115699
Start Date : 12/16/2015
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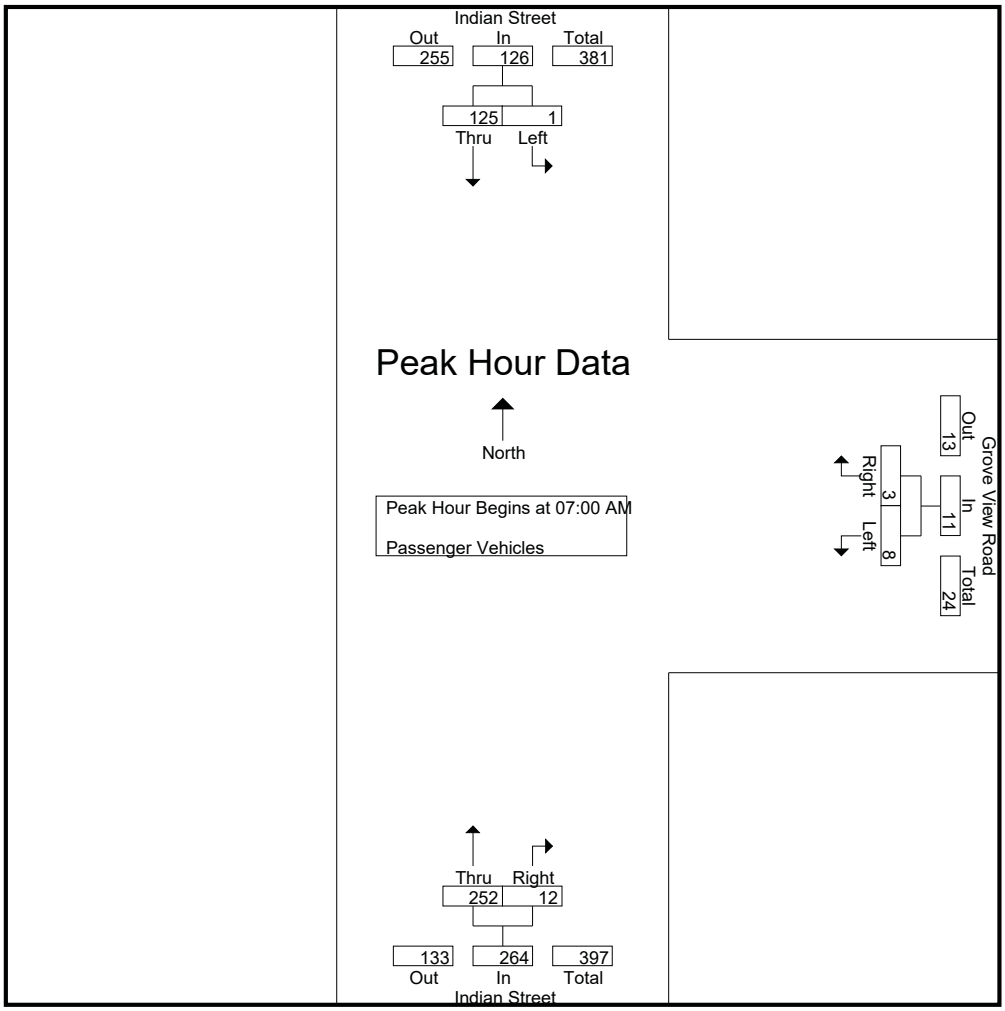


Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**45**	**45**	2	**2**	4	45	1	46
+15 mins.	0	25	25	2	0	2	62	3	65
+30 mins.	**1**	24	25	**4**	1	**5**	62	1	63
+45 mins.	0	31	31	0	0	0	**83**	**7**	**90**
Total Volume	1	125	126	8	3	11	252	12	264
% App. Total	0.8	99.2		72.7	27.3		95.5	4.5	
PHF	.250	.694	.700	.500	.375	.550	.759	.429	.733

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	1	0	0	0	4	0	4	5
07:30 AM	0	2	2	1	0	1	2	0	2	5
07:45 AM	0	3	3	0	0	0	0	0	0	3
Total	0	6	6	1	0	1	6	0	6	13
08:00 AM	0	4	4	0	0	0	0	0	0	4
08:15 AM	0	1	1	3	0	3	1	0	1	5
08:30 AM	0	0	0	2	0	2	6	0	6	8
08:45 AM	0	1	1	0	0	0	2	0	2	3
Total	0	6	6	5	0	5	9	0	9	20
Grand Total	0	12	12	6	0	6	15	0	15	33
Apprch %	0	100		100	0		100	0		
Total %	0	36.4	36.4	18.2	0	18.2	45.5	0	45.5	

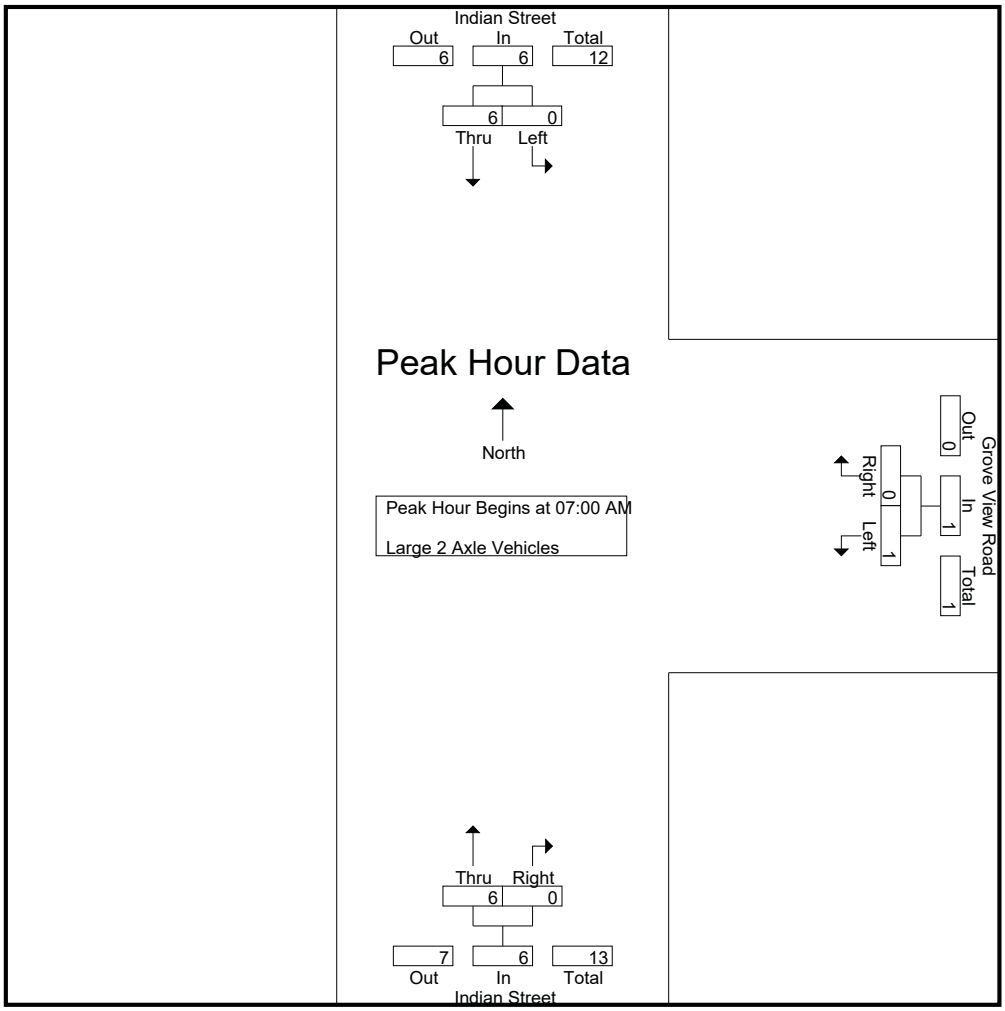
	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	1	0	0	0	**4**	0	**4**	**5**
07:30 AM	0	2	2	**1**	0	**1**	2	0	2	5
07:45 AM	0	**3**	**3**	0	0	0	0	0	0	3
Total Volume	0	6	6	1	0	1	6	0	6	13
% App. Total	0	100		100	0		100	0		
PHF	.000	.500	.500	.250	.000	.250	.375	.000	.375	.650

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	1	0	0	0	**4**	0	**4**
+30 mins.	0	2	2	**1**	0	**1**	2	0	2
+45 mins.	0	**3**	**3**	0	0	0	0	0	0
Total Volume	0	6	6	1	0	1	6	0	6
% App. Total	0	100		100	0		100	0	
PHF	.000	.500	.500	.250	.000	.250	.375	.000	.375

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	2	0	2	2
07:15 AM	0	1	1	0	0	0	1	0	1	2
07:30 AM	0	2	2	0	1	1	3	0	3	6
07:45 AM	0	5	5	1	0	1	2	0	2	8
Total	0	8	8	1	1	2	8	0	8	18
08:00 AM	0	2	2	0	0	0	1	0	1	3
08:15 AM	0	5	5	1	0	1	2	0	2	8
08:30 AM	0	3	3	1	0	1	3	0	3	7
08:45 AM	0	1	1	0	1	1	1	0	1	3
Total	0	11	11	2	1	3	7	0	7	21
Grand Total	0	19	19	3	2	5	15	0	15	39
Apprch %	0	100		60	40		100	0		
Total %	0	48.7	48.7	7.7	5.1	12.8	38.5	0	38.5	

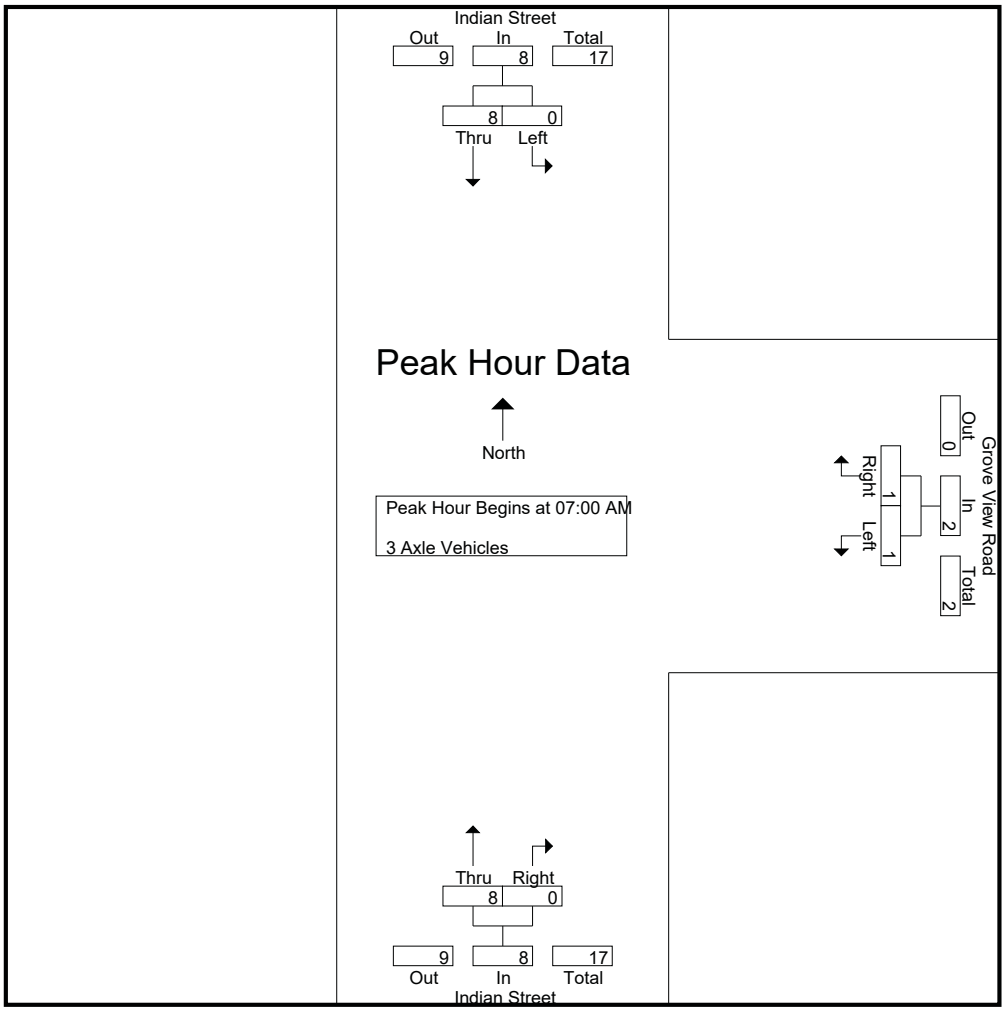
	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	2	0	2	2
07:15 AM	0	1	1	0	0	0	1	0	1	2
07:30 AM	0	2	2	0	**1**	**1**	**3**	0	**3**	6
07:45 AM	0	**5**	**5**	**1**	0	1	2	0	2	**8**
Total Volume	0	8	8	1	1	2	8	0	8	18
% App. Total	0	100		50	50		100	0		
PHF	.000	.400	.400	.250	.250	.500	.667	.000	.667	.563

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	2	0	2
+15 mins.	0	1	1	0	0	0	1	0	1
+30 mins.	0	2	2	0	**1**	**1**	**3**	0	**3**
+45 mins.	0	**5**	**5**	**1**	0	1	2	0	2
Total Volume	0	8	8	1	1	2	8	0	8
% App. Total	0	100		50	50		100	0	
PHF	.000	.400	.400	.250	.250	.500	.667	.000	.667

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	8	8	0	0	0	6	3	9	17
07:15 AM	0	7	7	1	0	1	3	2	5	13
07:30 AM	0	5	5	0	0	0	4	0	4	9
07:45 AM	0	6	6	0	0	0	4	1	5	11
Total	0	26	26	1	0	1	17	6	23	50
08:00 AM	0	7	7	2	0	2	11	3	14	23
08:15 AM	0	5	5	0	0	0	2	4	6	11
08:30 AM	0	2	2	0	0	0	9	0	9	11
08:45 AM	0	8	8	0	0	0	3	2	5	13
Total	0	22	22	2	0	2	25	9	34	58
Grand Total	0	48	48	3	0	3	42	15	57	108
Apprch %	0	100		100	0		73.7	26.3		
Total %	0	44.4	44.4	2.8	0	2.8	38.9	13.9	52.8	

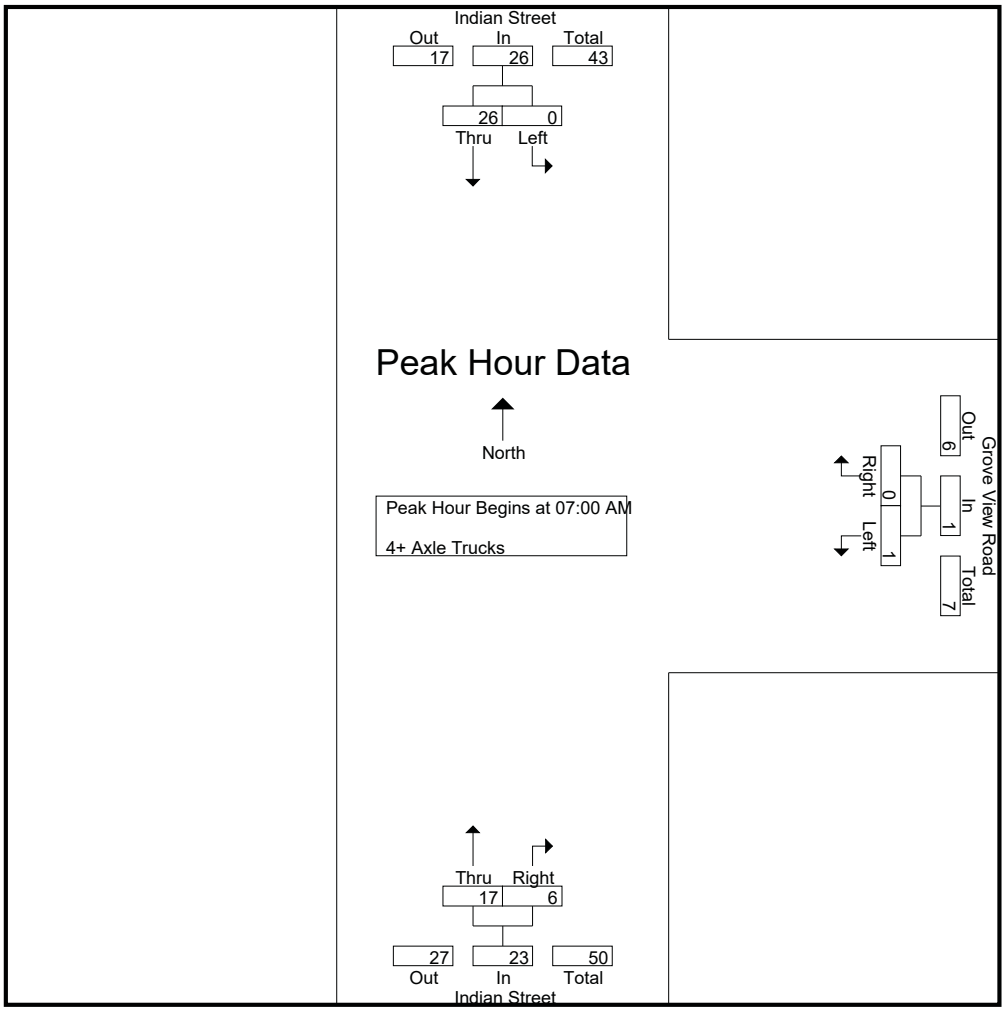
	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**8**	**8**	0	0	0	**6**	**3**	**9**	**17**
07:15 AM	0	7	7	**1**	0	**1**	3	2	5	13
07:30 AM	0	5	5	0	0	0	4	0	4	9
07:45 AM	0	6	6	0	0	0	4	1	5	11
Total Volume	0	26	26	1	0	1	17	6	23	50
% App. Total	0	100		100	0		73.9	26.1		
PHF	.000	.813	.813	.250	.000	.250	.708	.500	.639	.735

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**8**	**8**	0	0	0	**6**	**3**	**9**
+15 mins.	0	7	7	**1**	0	**1**	3	2	5
+30 mins.	0	5	5	0	0	0	4	0	4
+45 mins.	0	6	6	0	0	0	4	1	5
Total Volume	0	26	26	1	0	1	17	6	23
% App. Total	0	100		100	0		73.9	26.1	
PHF	.000	.813	.813	.250	.000	.250	.708	.500	.639

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	63	63	14	1	15	73	2	75	153
04:15 PM	4	52	56	4	2	6	98	3	101	163
04:30 PM	3	155	158	7	4	11	116	5	121	290
04:45 PM	3	178	181	13	2	15	102	4	106	302
Total	10	448	458	38	9	47	389	14	403	908
05:00 PM	0	84	84	1	2	3	77	8	85	172
05:15 PM	1	83	84	3	3	6	62	4	66	156
05:30 PM	3	151	154	2	2	4	115	1	116	274
05:45 PM	1	123	124	3	1	4	135	0	135	263
Total	5	441	446	9	8	17	389	13	402	865
Grand Total	15	889	904	47	17	64	778	27	805	1773
Apprch %	1.7	98.3		73.4	26.6		96.6	3.4		
Total %	0.8	50.1	51	2.7	1	3.6	43.9	1.5	45.4	
Passenger Vehicles	12	844	856	41	14	55	718	13	731	1642
% Passenger Vehicles	80	94.9	94.7	87.2	82.4	85.9	92.3	48.1	90.8	92.6
Large 2 Axle Vehicles	1	5	6	0	2	2	6	1	7	15
% Large 2 Axle Vehicles	6.7	0.6	0.7	0	11.8	3.1	0.8	3.7	0.9	0.8
3 Axle Vehicles	0	3	3	0	0	0	36	3	39	42
% 3 Axle Vehicles	0	0.3	0.3	0	0	0	4.6	11.1	4.8	2.4
4+ Axle Trucks	2	37	39	6	1	7	18	10	28	74
% 4+ Axle Trucks	13.3	4.2	4.3	12.8	5.9	10.9	2.3	37	3.5	4.2

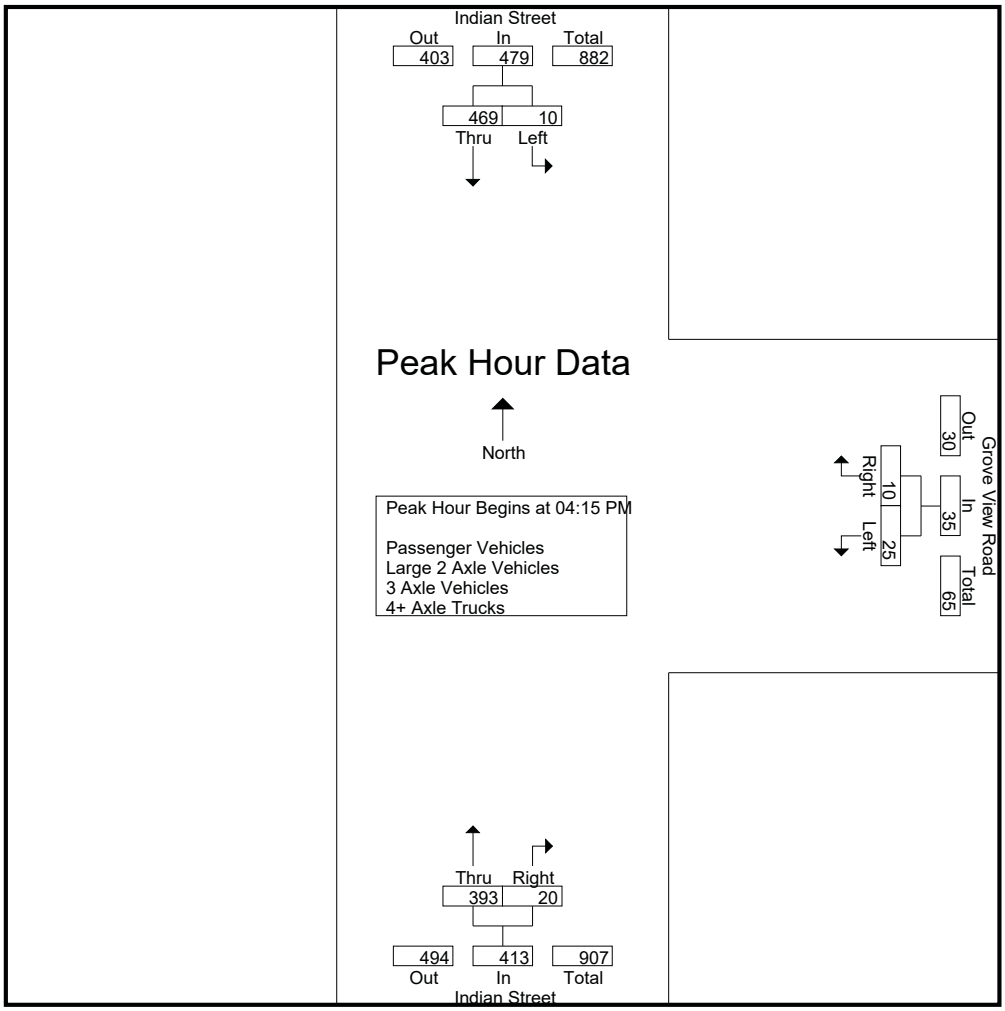
	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**4**	52	56	4	2	6	98	3	101	163
04:30 PM	3	155	158	7	**4**	11	**116**	5	**121**	290
04:45 PM	3	**178**	**181**	**13**	2	**15**	102	4	106	**302**
05:00 PM	0	84	84	1	2	3	77	**8**	85	172
Total Volume	10	469	479	25	10	35	393	20	413	927
% App. Total	2.1	97.9		71.4	28.6		95.2	4.8		
PHF	.625	.659	.662	.481	.625	.583	.847	.625	.853	.767

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:00 PM			04:15 PM		
+0 mins.	**3**	155	158	**14**	1	**15**	98	3	101
+15 mins.	3	**178**	**181**	4	2	6	**116**	5	**121**
+30 mins.	0	84	84	7	**4**	11	102	4	106
+45 mins.	1	83	84	13	2	15	77	**8**	85
Total Volume	7	500	507	38	9	47	393	20	413
% App. Total	1.4	98.6		80.9	19.1		95.2	4.8	
PHF	.583	.702	.700	.679	.563	.783	.847	.625	.853

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
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(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles

	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	56	56	14	0	14	62	1	63	133
04:15 PM	1	43	44	2	1	3	96	1	97	144
04:30 PM	3	154	157	6	4	10	107	1	108	275
04:45 PM	3	171	174	12	1	13	90	4	94	281
Total	7	424	431	34	6	40	355	7	362	833
05:00 PM	0	81	81	1	2	3	71	5	76	160
05:15 PM	1	76	77	2	3	5	56	1	57	139
05:30 PM	3	146	149	1	2	3	110	0	110	262
05:45 PM	1	117	118	3	1	4	126	0	126	248
Total	5	420	425	7	8	15	363	6	369	809
Grand Total	12	844	856	41	14	55	718	13	731	1642
Apprch %	1.4	98.6		74.5	25.5		98.2	1.8		
Total %	0.7	51.4	52.1	2.5	0.9	3.3	43.7	0.8	44.5	

	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	1	43	44	2	1	3	96	1	97	144
04:30 PM	**3**	154	157	6	**4**	10	**107**	1	**108**	275
04:45 PM	3	**171**	**174**	**12**	1	**13**	90	4	94	**281**
05:00 PM	0	81	81	1	2	3	71	**5**	76	160
Total Volume	7	449	456	21	8	29	364	11	375	860
% App. Total	1.5	98.5		72.4	27.6		97.1	2.9		
PHF	.583	.656	.655	.438	.500	.558	.850	.550	.868	.765

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRPM
Site Code : 05115699
Start Date : 12/16/2015
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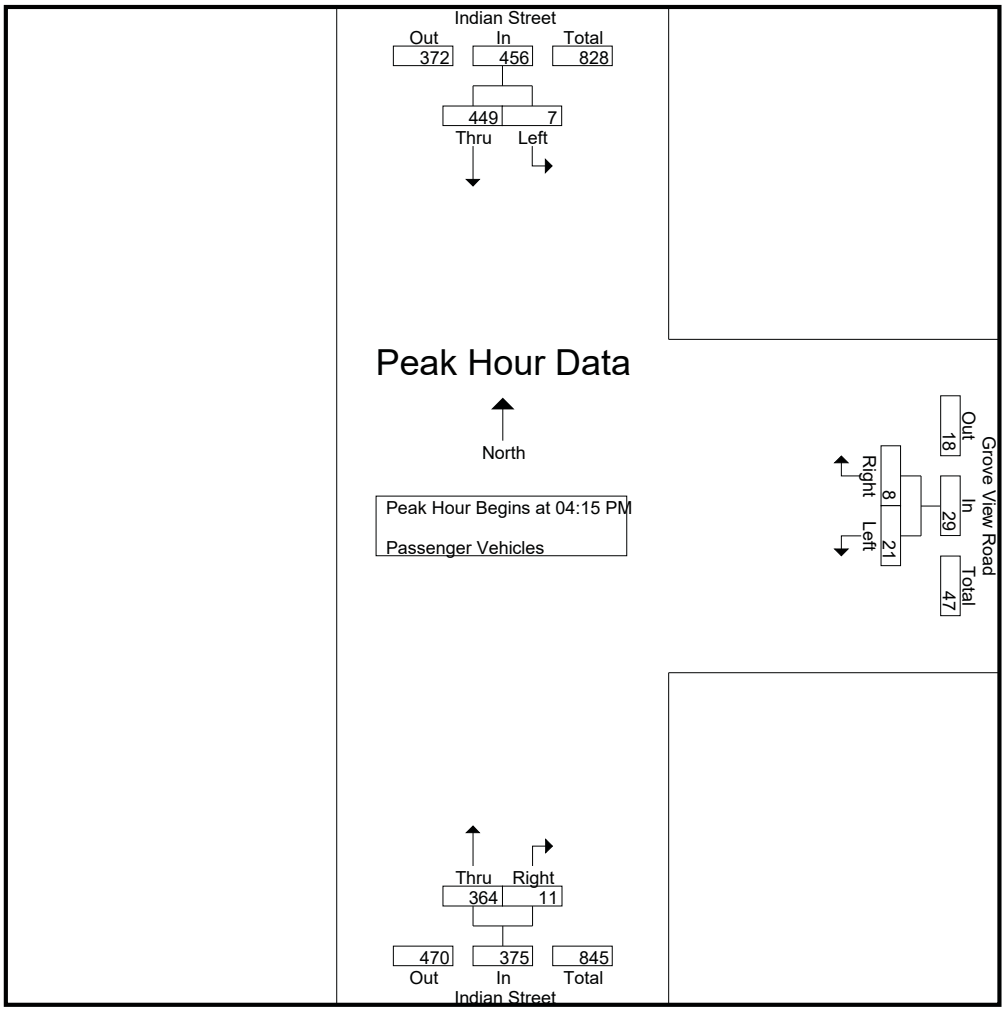

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	1	43	44	2	1	3	96	1	97
+15 mins.	**3**	154	157	6	**4**	10	**107**	1	**108**
+30 mins.	3	**171**	**174**	**12**	1	**13**	90	4	94
+45 mins.	0	81	81	1	2	3	71	**5**	76
Total Volume	7	449	456	21	8	29	364	11	375
% App. Total	1.5	98.5		72.4	27.6		97.1	2.9	
PHF	.583	.656	.655	.438	.500	.558	.850	.550	.868

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	1	1	4	0	4	5
04:15 PM	1	2	3	0	1	1	0	0	0	4
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	2	2	0	0	0	2	0	2	4
Total	1	4	5	0	2	2	6	0	6	13
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	1	1	1
05:30 PM	0	1	1	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	0	0	0	1	1	2
Grand Total	1	5	6	0	2	2	6	1	7	15
Apprch %	16.7	83.3		0	100		85.7	14.3		
Total %	6.7	33.3	40	0	13.3	13.3	40	6.7	46.7	

	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**1**	**2**	**3**	0	**1**	**1**	0	0	0	**4**
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	2	2	0	0	0	**2**	0	**2**	4
05:00 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	4	5	0	1	1	2	0	2	8
% App. Total	20	80		0	100		100	0		
PHF	.250	.500	.417	.000	.250	.250	.250	.000	.250	.500

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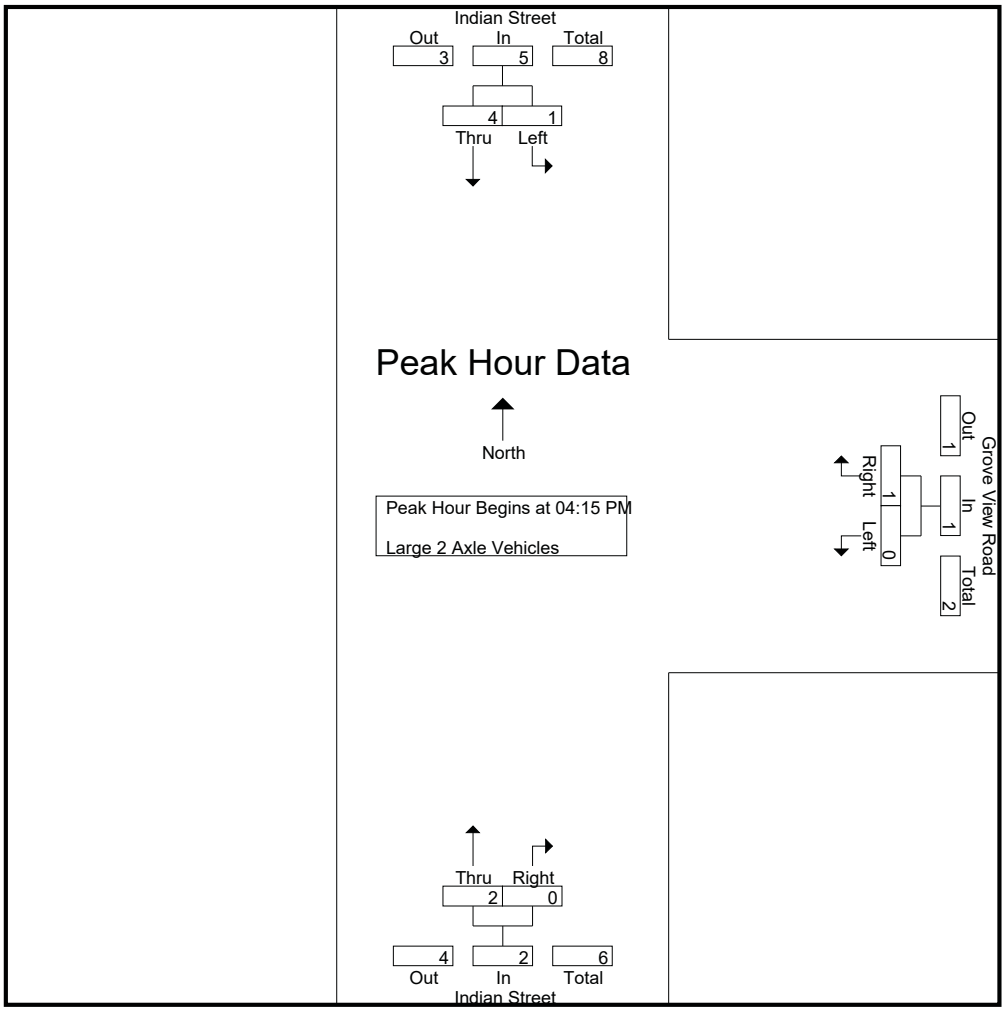
City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	**1**	**2**	**3**	0	**1**	**1**	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	2	2	0	0	0	**2**	0	**2**
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	4	5	0	1	1	2	0	2
% App. Total	20	80		0	100		100	0	
PHF	.250	.500	.417	.000	.250	.250	.250	.000	.250

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
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(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	0	0	0	2	0	2	3
04:15 PM	0	1	1	0	0	0	2	0	2	3
04:30 PM	0	0	0	0	0	0	7	2	9	9
04:45 PM	0	0	0	0	0	0	5	0	5	5
Total	0	2	2	0	0	0	16	2	18	20
05:00 PM	0	0	0	0	0	0	5	1	6	6
05:15 PM	0	0	0	0	0	0	3	0	3	3
05:30 PM	0	0	0	0	0	0	5	0	5	5
05:45 PM	0	1	1	0	0	0	7	0	7	8
Total	0	1	1	0	0	0	20	1	21	22
Grand Total	0	3	3	0	0	0	36	3	39	42
Apprch %	0	100		0	0		92.3	7.7		
Total %	0	7.1	7.1	0	0	0	85.7	7.1	92.9	

	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	**1**	**1**	0	0	0	2	0	2	3
04:30 PM	0	0	0	0	0	0	**7**	**2**	**9**	**9**
04:45 PM	0	0	0	0	0	0	5	0	5	5
05:00 PM	0	0	0	0	0	0	5	1	6	6
Total Volume	0	1	1	0	0	0	19	3	22	23
% App. Total	0	100		0	0		86.4	13.6		
PHF	.000	.250	.250	.000	.000	.000	.679	.375	.611	.639

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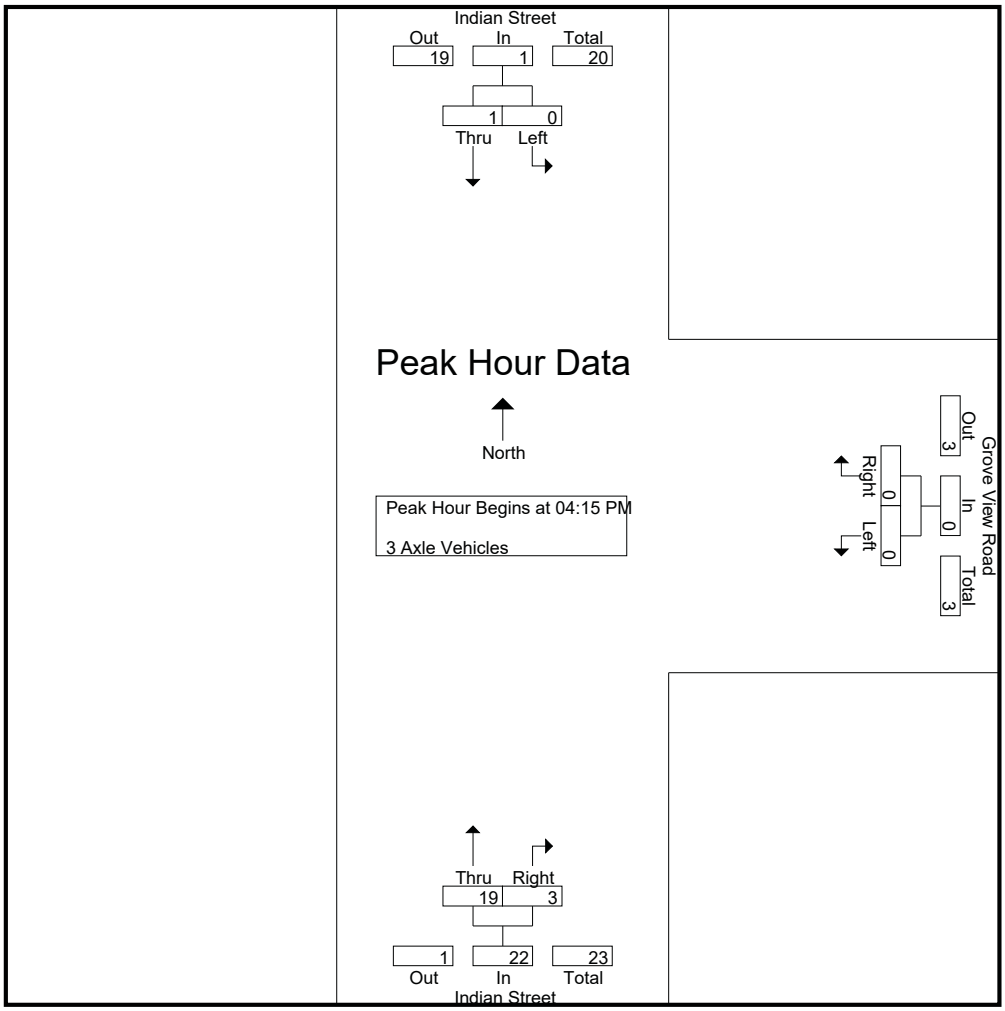
Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	**1**	**1**	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	0	**7**	**2**	**9**
+30 mins.	0	0	0	0	0	0	5	0	5
+45 mins.	0	0	0	0	0	0	5	1	6
Total Volume	0	1	1	0	0	0	19	3	22
% App. Total	0	100		0	0		86.4	13.6	
PHF	.000	.250	.250	.000	.000	.000	.679	.375	.611

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Counts Unlimited
PO Box 1178
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City of Moreno Valley
N/S: Indian Street
E/W: Grove View Road
Weather: Clear

File Name : MRVINGRPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	6	6	0	0	0	5	1	6	12
04:15 PM	2	6	8	2	0	2	0	2	2	12
04:30 PM	0	1	1	1	0	1	2	2	4	6
04:45 PM	0	5	5	1	1	2	5	0	5	12
Total	2	18	20	4	1	5	12	5	17	42
05:00 PM	0	3	3	0	0	0	1	2	3	6
05:15 PM	0	7	7	1	0	1	3	2	5	13
05:30 PM	0	4	4	1	0	1	0	1	1	6
05:45 PM	0	5	5	0	0	0	2	0	2	7
Total	0	19	19	2	0	2	6	5	11	32
Grand Total	2	37	39	6	1	7	18	10	28	74
Apprch %	5.1	94.9		85.7	14.3		64.3	35.7		
Total %	2.7	50	52.7	8.1	1.4	9.5	24.3	13.5	37.8	

	Indian Street Southbound			Grove View Road Westbound			Indian Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	**2**	**6**	**8**	**2**	0	**2**	0	**2**	2	**12**
04:30 PM	0	1	1	1	0	1	2	2	4	6
04:45 PM	0	5	5	1	**1**	2	**5**	0	**5**	12
05:00 PM	0	3	3	0	0	0	1	2	3	6
Total Volume	2	15	17	4	1	5	8	6	14	36
% App. Total	11.8	88.2		80	20		57.1	42.9		
PHF	.250	.625	.531	.500	.250	.625	.400	.750	.700	.750

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City of Moreno Valley
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File Name : MRVINGRPM
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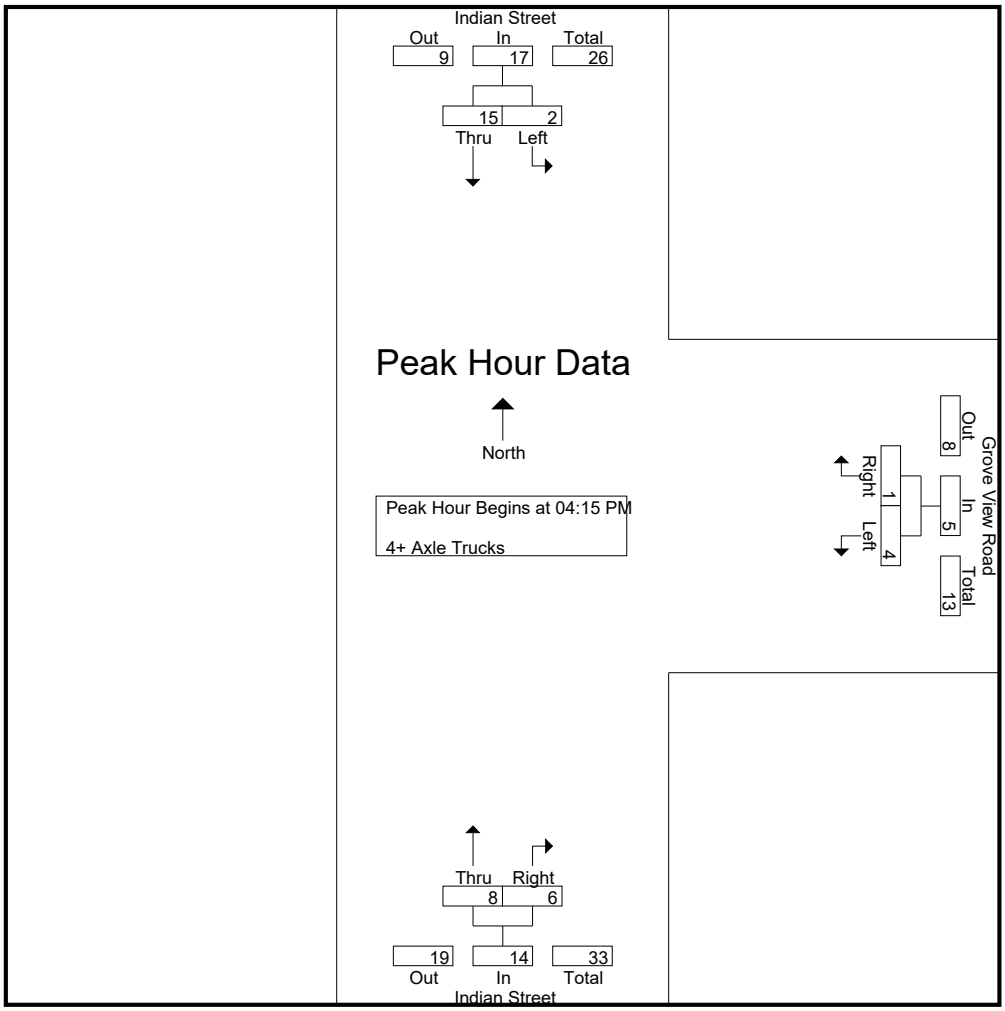


Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	**2**	**6**	**8**	**2**	0	**2**	0	**2**	2
+15 mins.	0	1	1	1	0	1	2	2	4
+30 mins.	0	5	5	1	**1**	2	**5**	0	**5**
+45 mins.	0	3	3	0	0	0	1	2	3
Total Volume	2	15	17	4	1	5	8	6	14
% App. Total	11.8	88.2		80	20		57.1	42.9	
PHF	.250	.625	.531	.500	.250	.625	.400	.750	.700

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Location: Moreno Valley
N/S: Indian Street
E/W: Grove View Road

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

PEDESTRIANS

	North Leg Indian Street	East Leg Grove View Road	South Leg Indian Street	West Leg Grove View Road	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Indian Street	East Leg Grove View Road	South Leg Indian Street	West Leg Grove View Road	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	1	0	0	1
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	1

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Location: Moreno Valley
N/S: Indian Street
E/W: Grove View Road

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

BICYCLES

	North Leg Indian Street	East Leg Grove View Road	South Leg Indian Street	West Leg Grove View Road	TOTAL
7:00 AM	0	0	0	1	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	1

	North Leg Indian Street	East Leg Grove View Road	South Leg Indian Street	West Leg Grove View Road	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Indian Street Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	11	44	7	56	3	148	3	0	154	15	22	4	3	41	37	68	6	0	111	10	362	372
07:15 AM	1	15	21	6	37	4	107	2	1	113	16	31	4	4	51	46	60	6	0	112	11	313	324
07:30 AM	0	7	30	8	37	1	89	4	3	94	13	29	3	2	45	38	80	10	1	128	14	304	318
07:45 AM	2	16	28	8	46	3	85	6	2	94	13	54	5	4	72	54	71	12	6	137	20	349	369
Total	4	49	123	29	176	11	429	15	6	455	57	136	16	13	209	175	279	34	7	488	55	1328	1383
08:00 AM	1	10	19	6	30	2	61	0	0	63	11	24	2	1	37	40	50	12	3	102	10	232	242
08:15 AM	0	17	32	10	49	2	44	2	1	48	5	17	1	0	23	18	27	8	2	53	13	173	186
08:30 AM	2	8	18	5	28	0	35	4	1	39	7	16	1	0	24	35	32	4	1	71	7	162	169
08:45 AM	1	5	27	10	33	2	32	6	2	40	9	8	0	0	17	22	28	3	2	53	14	143	157
Total	4	40	96	31	140	6	172	12	4	190	32	65	4	1	101	115	137	27	8	279	44	710	754
Grand Total	8	89	219	60	316	17	601	27	10	645	89	201	20	14	310	290	416	61	15	767	99	2038	2137
Apprch %	2.5	28.2	69.3			2.6	93.2	4.2			28.7	64.8	6.5			37.8	54.2	8					
Total %	0.4	4.4	10.7		15.5	0.8	29.5	1.3		31.6	4.4	9.9	1		15.2	14.2	20.4	3		37.6	4.6	95.4	
Passenger Vehicles	6	73	149		274	13	569	20		611	74	178	19		285	227	380	46		663	0	0	1833
% Passenger Vehicles	75	82	68	76.7	72.9	76.5	94.7	74.1	90	93.3	83.1	88.6	95	100	88	78.3	91.3	75.4	66.7	84.8	0	0	85.8
Large 2 Axle Vehicles	0	9	17		33	1	9	0		10	4	6	1		11	11	16	5		34	0	0	88
% Large 2 Axle Vehicles	0	10.1	7.8	11.7	8.8	5.9	1.5	0	0	1.5	4.5	3	5	0	3.4	3.8	3.8	8.2	13.3	4.3	0	0	4.1
3 Axle Vehicles	1	1	12		16	3	5	2		10	5	5	0		10	15	6	4		26	0	0	62
% 3 Axle Vehicles	12.5	1.1	5.5	3.3	4.3	17.6	0.8	7.4	0	1.5	5.6	2.5	0	0	3.1	5.2	1.4	6.6	6.7	3.3	0	0	2.9
4+ Axle Trucks	1	6	41		53	0	18	5		24	6	12	0		18	37	14	6		59	0	0	154
% 4+ Axle Trucks	12.5	6.7	18.7	8.3	14.1	0	3	18.5	10	3.7	6.7	6	0	0	5.6	12.8	3.4	9.8	13.3	7.5	0	0	7.2

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	11	**44**	**56**	3	**148**	3	**154**	15	22	4	41	37	68	6	111	**362**
07:15 AM	1	15	21	37	**4**	107	2	113	**16**	31	4	51	46	60	6	112	313
07:30 AM	0	7	30	37	1	89	4	94	13	29	3	45	38	**80**	10	128	304
07:45 AM	**2**	**16**	28	46	3	85	**6**	94	13	**54**	**5**	**72**	**54**	71	**12**	**137**	349
Total Volume	4	49	123	176	11	429	15	455	57	136	16	209	175	279	34	488	1328
% App. Total	2.3	27.8	69.9		2.4	94.3	3.3		27.3	65.1	7.7		35.9	57.2	7		
PHF	.500	.766	.699	.786	.688	.725	.625	.739	.891	.630	.800	.726	.810	.872	.708	.891	.917

Packet Pg. 1740

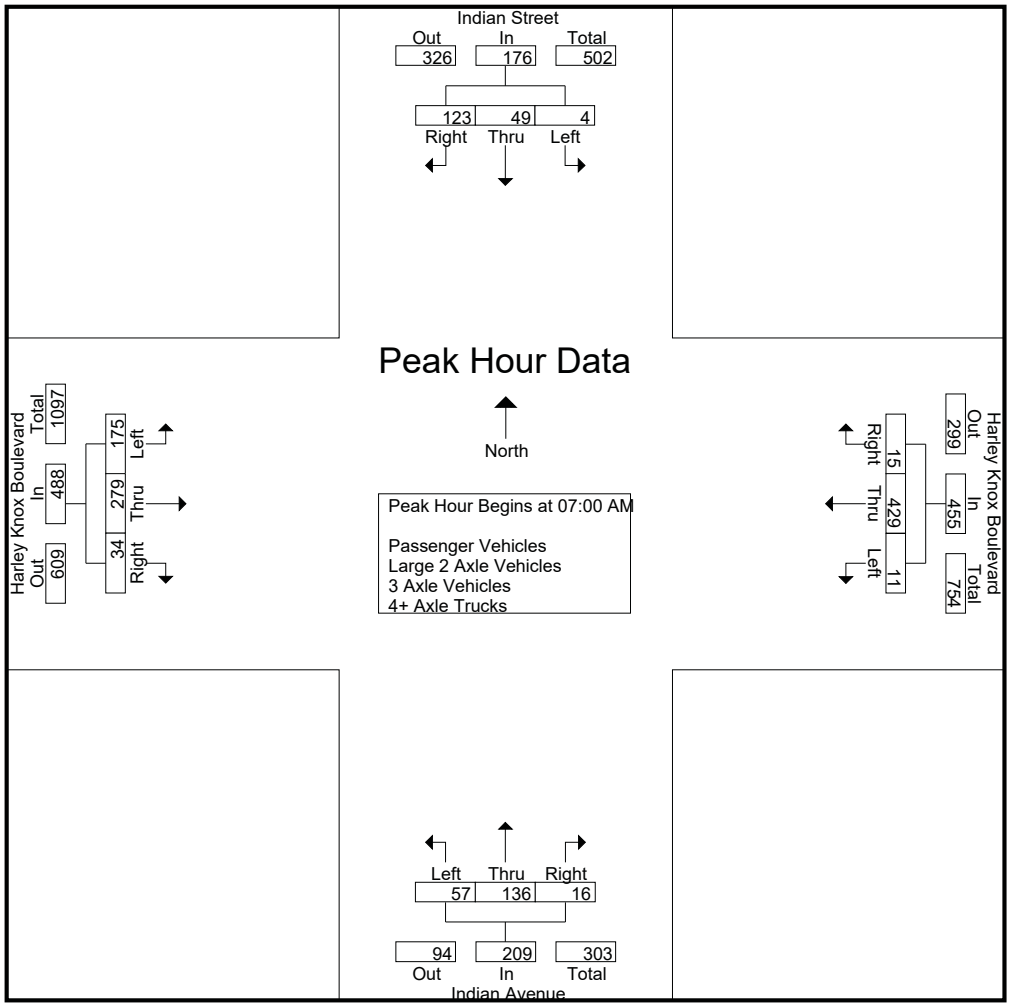
E.2.p

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	1	11	**44**	**56**	3	**148**	3	**154**	15	22	4	41	37	68	6	111	
+15 mins.	1	15	21	37	**4**	107	2	113	**16**	31	4	51	46	60	6	112	
+30 mins.	0	7	30	37	1	89	4	94	13	29	3	45	38	**80**	10	128	
+45 mins.	**2**	**16**	28	46	3	85	**6**	94	13	**54**	**5**	**72**	**54**	71	**12**	**137**	
Total Volume	4	49	123	176	11	429	15	455	57	136	16	209	175	279	34	488	
% App. Total	2.3	27.8	69.9		2.4	94.3	3.3		27.3	65.1	7.7		35.9	57.2	7		
PHF	.500	.766	.699	.786	.688	.725	.625	.739	.891	.630	.800	.726	.810	.872	.708	.891	

Packet Pg. 1742

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles

	Indian Street Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	9	38	6	48	2	147	2	0	151	15	20	4	3	39	29	66	3	0	98	9	336	345
07:15 AM	1	14	12	4	27	2	104	1	1	107	14	30	4	4	48	33	54	5	0	92	9	274	283
07:30 AM	0	5	24	6	29	1	85	3	3	89	12	28	3	2	43	34	75	8	1	117	12	278	290
07:45 AM	1	12	18	7	31	2	80	6	2	88	11	49	5	4	65	50	67	10	4	127	17	311	328
Total	3	40	92	23	135	7	416	12	6	435	52	127	16	13	195	146	262	26	5	434	47	1199	1246
08:00 AM	0	7	8	3	15	2	56	0	0	58	9	20	2	1	31	32	44	11	3	87	7	191	198
08:15 AM	0	14	20	7	34	2	41	2	1	45	4	14	1	0	19	12	22	5	1	39	9	137	146
08:30 AM	2	8	10	3	20	0	30	2	0	32	5	11	0	0	16	23	29	2	0	54	3	122	125
08:45 AM	1	4	19	10	24	2	26	4	2	32	4	6	0	0	10	14	23	2	1	39	13	105	118
Total	3	33	57	23	93	6	153	8	3	167	22	51	3	1	76	81	118	20	5	219	32	555	587
Grand Total	6	73	149	46	228	13	569	20	9	602	74	178	19	14	271	227	380	46	10	653	79	1754	1833
Apprch %	2.6	32	65.4			2.2	94.5	3.3			27.3	65.7	7			34.8	58.2	7					
Total %	0.3	4.2	8.5		13	0.7	32.4	1.1		34.3	4.2	10.1	1.1		15.5	12.9	21.7	2.6		37.2	4.3	95.7	

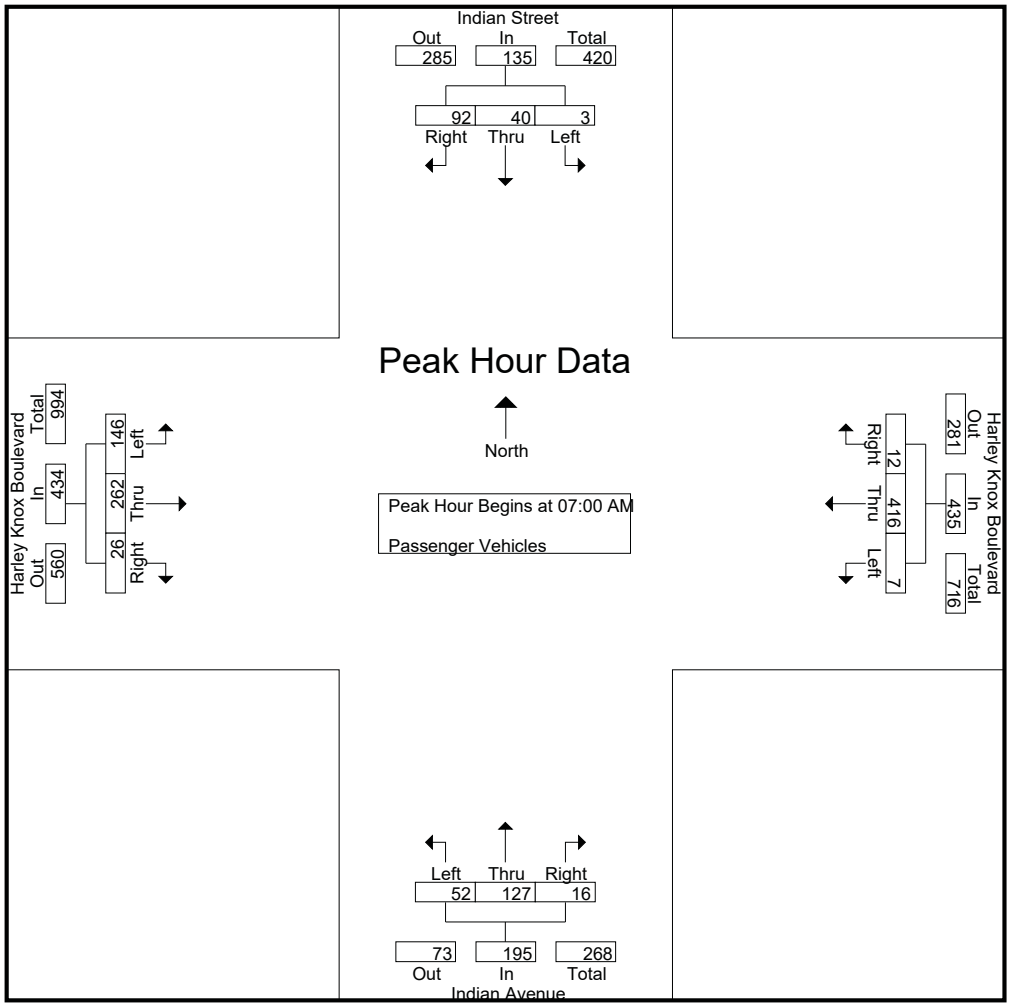
3.1-198

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**1**	9	**38**	**48**	**2**	**147**	2	**151**	**15**	20	4	39	29	66	3	98	**336**
07:15 AM	1	**14**	12	27	2	104	1	107	14	30	4	48	33	54	5	92	274
07:30 AM	0	5	24	29	1	85	3	89	12	28	3	43	34	**75**	8	117	278
07:45 AM	1	12	18	31	2	80	**6**	88	11	**49**	**5**	**65**	**50**	67	**10**	**127**	311
Total Volume	3	40	92	135	7	416	12	435	52	127	16	195	146	262	26	434	1199
% App. Total	2.2	29.6	68.1		1.6	95.6	2.8		26.7	65.1	8.2		33.6	60.4	6		
PHF	.750	.714	.605	.703	.875	.707	.500	.720	.867	.648	.800	.750	.730	.873	.650	.854	.892

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**1**	9	**38**	**48**	**2**	**147**	2	**151**	**15**	20	4	39	29	66	3	98	
+15 mins.	1	**14**	12	27	2	104	1	107	14	30	4	48	33	54	5	92	
+30 mins.	0	5	24	29	1	85	3	89	12	28	3	43	34	**75**	8	117	
+45 mins.	1	12	18	31	2	80	**6**	88	11	**49**	**5**	**65**	**50**	67	**10**	**127**	
Total Volume	3	40	92	135	7	416	12	435	52	127	16	195	146	262	26	434	
% App. Total	2.2	29.6	68.1		1.6	95.6	2.8		26.7	65.1	8.2		33.6	60.4	6		
PHF	.750	.714	.605	.703	.875	.707	.500	.720	.867	.648	.800	.750	.730	.873	.650	.854	

Packet Pg. 1745

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Indian Street Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	1	0	0	1	0	3	3
07:15 AM	0	0	1	0	1	0	1	0	0	1	0	1	0	0	1	6	2	0	0	8	0	11	11
07:30 AM	0	2	1	1	3	0	1	0	0	1	0	0	0	0	0	0	3	1	0	4	1	8	9
07:45 AM	0	2	3	1	5	0	2	0	0	2	1	2	0	0	3	1	1	1	1	3	2	13	15
Total	0	4	5	2	9	1	5	0	0	6	1	3	0	0	4	7	7	2	1	16	3	35	38
08:00 AM	0	3	2	1	5	0	1	0	0	1	1	0	0	0	1	0	4	1	0	5	1	12	13
08:15 AM	0	1	6	2	7	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	2	10	12
08:30 AM	0	0	3	2	3	0	1	0	0	1	1	1	1	0	3	3	2	2	1	7	3	14	17
08:45 AM	0	1	1	0	2	0	2	0	0	2	1	1	0	0	2	1	1	0	0	2	0	8	8
Total	0	5	12	5	17	0	4	0	0	4	3	3	1	0	7	4	9	3	1	16	6	44	50
Grand Total	0	9	17	7	26	1	9	0	0	10	4	6	1	0	11	11	16	5	2	32	9	79	88
Apprch %	0	34.6	65.4			10	90	0			36.4	54.5	9.1			34.4	50	15.6					
Total %	0	11.4	21.5		32.9	1.3	11.4	0		12.7	5.1	7.6	1.3		13.9	13.9	20.3	6.3		40.5	10.2	89.8	

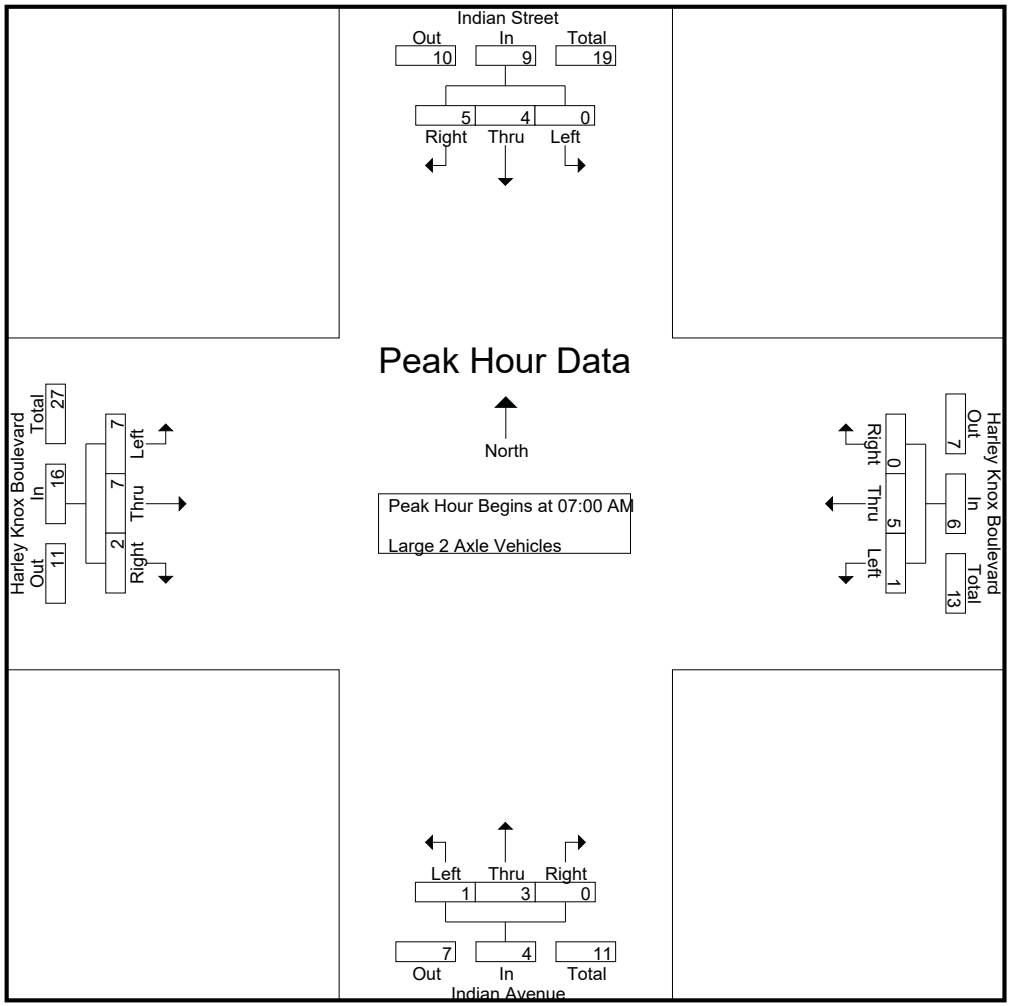
3.1-201

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	**1**	1	0	**2**	0	0	0	0	0	1	0	1	3
07:15 AM	0	0	1	1	0	1	0	1	0	1	0	1	**6**	2	0	**8**	11
07:30 AM	0	**2**	1	3	0	1	0	1	0	0	0	0	0	**3**	**1**	4	8
07:45 AM	0	2	**3**	**5**	0	**2**	0	2	**1**	**2**	0	**3**	1	1	1	3	**13**
Total Volume	0	4	5	9	1	5	0	6	1	3	0	4	7	7	2	16	35
% App. Total	0	44.4	55.6		16.7	83.3	0		25	75	0		43.8	43.8	12.5		
PHF	.000	.500	.417	.450	.250	.625	.000	.750	.250	.375	.000	.333	.292	.583	.500	.500	.673

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



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City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	**1**	1	0	**2**	0	0	0	0	0	1	0	1	
+15 mins.	0	0	1	1	0	1	0	1	0	1	0	1	**6**	2	0	**8**	
+30 mins.	0	**2**	1	3	0	1	0	1	0	0	0	0	0	**3**	**1**	4	
+45 mins.	0	2	**3**	**5**	0	**2**	0	2	**1**	**2**	0	**3**	1	1	1	3	
Total Volume	0	4	5	9	1	5	0	6	1	3	0	4	7	7	2	16	
% App. Total	0	44.4	55.6		16.7	83.3	0		25	75	0		43.8	43.8	12.5		
PHF	.000	.500	.417	.450	.250	.625	.000	.750	.250	.375	.000	.333	.292	.583	.500	.500	

Packet Pg. 1748

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Indian Street Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	4	4
07:15 AM	0	0	1	1	1	2	0	1	0	3	2	0	0	0	2	1	0	1	0	2	1	8	9
07:30 AM	0	0	1	0	1	0	2	0	0	2	0	1	0	0	1	2	0	1	0	3	0	7	7
07:45 AM	1	0	2	0	3	1	0	0	0	1	0	1	0	0	1	1	1	0	0	2	0	7	7
Total	1	0	4	1	5	3	2	1	0	6	2	2	0	0	4	7	2	2	0	11	1	26	27
08:00 AM	0	0	2	1	2	0	0	0	0	0	0	1	0	0	1	2	1	0	0	3	1	6	7
08:15 AM	0	1	3	0	4	0	1	0	0	1	1	0	0	0	1	2	1	2	1	5	1	11	12
08:30 AM	0	0	3	0	3	0	1	1	0	2	0	2	0	0	2	2	1	0	0	3	0	10	10
08:45 AM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	2	1	0	0	3	0	6	6
Total	0	1	8	1	9	0	3	1	0	4	3	3	0	0	6	8	4	2	1	14	2	33	35
Grand Total	1	1	12	2	14	3	5	2	0	10	5	5	0	0	10	15	6	4	1	25	3	59	62
Apprch %	7.1	7.1	85.7			30	50	20			50	50	0			60	24	16					
Total %	1.7	1.7	20.3		23.7	5.1	8.5	3.4		16.9	8.5	8.5	0		16.9	25.4	10.2	6.8		42.4	4.8	95.2	

3.1-204

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**1**	0	**4**	4
07:15 AM	0	0	1	1	**2**	0	**1**	**3**	**2**	0	0	**2**	1	0	**1**	2	**8**
07:30 AM	0	0	1	1	0	**2**	0	2	0	**1**	0	1	2	0	1	3	7
07:45 AM	**1**	0	**2**	**3**	1	0	0	1	0	1	0	1	1	1	0	2	7
Total Volume	1	0	4	5	3	2	1	6	2	2	0	4	7	2	2	11	26
% App. Total	20	0	80		50	33.3	16.7		50	50	0		63.6	18.2	18.2		
PHF	.250	.000	.500	.417	.375	.250	.250	.500	.250	.500	.000	.500	.583	.500	.500	.688	.813

Packet Pg. 1749

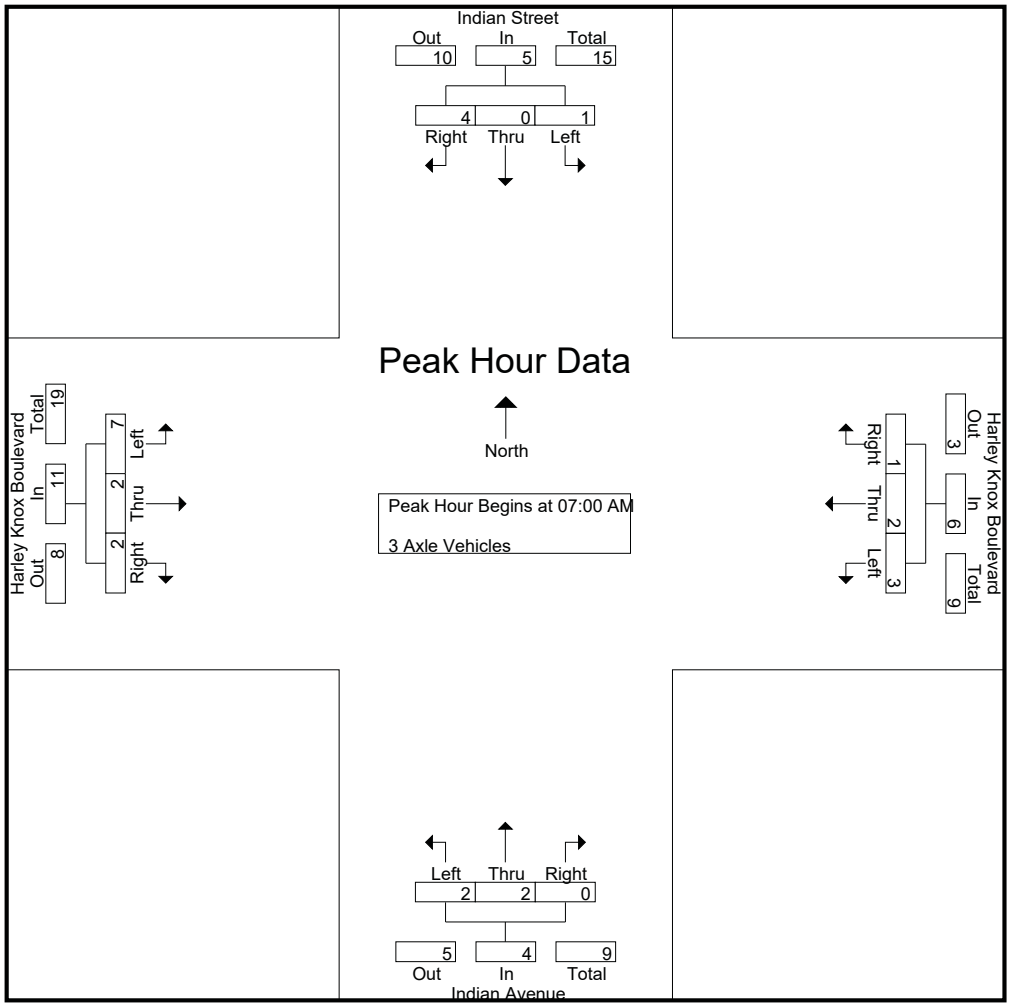
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Packet Pg. 1750

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**1**	0	**4**	
+15 mins.	0	0	1	1	**2**	0	**1**	**3**	**2**	0	0	**2**	1	0	**1**	2	
+30 mins.	0	0	1	1	0	**2**	0	2	0	**1**	0	1	2	0	1	3	
+45 mins.	**1**	0	**2**	**3**	1	0	0	1	0	1	0	1	1	1	0	2	
Total Volume	1	0	4	5	3	2	1	6	2	2	0	4	7	2	2	11	
% App. Total	20	0	80		50	33.3	16.7		50	50	0		63.6	18.2	18.2		
PHF	.250	.000	.500	.417	.375	.250	.250	.500	.250	.500	.000	.500	.583	.500	.500	.688	

Packet Pg. 1751

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Indian Street Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	2	6	1	8	0	0	1	0	1	0	2	0	0	2	5	0	3	0	8	1	19	20
07:15 AM	0	1	7	1	8	0	2	0	0	2	0	0	0	0	0	6	4	0	0	10	1	20	21
07:30 AM	0	0	4	1	4	0	1	1	0	2	1	0	0	0	1	2	2	0	0	4	1	11	12
07:45 AM	0	2	5	0	7	0	3	0	0	3	1	2	0	0	3	2	2	1	1	5	1	18	19
Total	0	5	22	3	27	0	6	2	0	8	2	4	0	0	6	15	8	4	1	27	4	68	72
08:00 AM	1	0	7	1	8	0	4	0	0	4	1	3	0	0	4	6	1	0	0	7	1	23	24
08:15 AM	0	1	3	1	4	0	2	0	0	2	0	2	0	0	2	4	2	1	0	7	1	15	16
08:30 AM	0	0	2	0	2	0	3	1	1	4	1	2	0	0	3	7	0	0	0	7	1	16	17
08:45 AM	0	0	7	0	7	0	3	2	0	5	2	1	0	0	3	5	3	1	1	9	1	24	25
Total	1	1	19	2	21	0	12	3	1	15	4	8	0	0	12	22	6	2	1	30	4	78	82
Grand Total	1	6	41	5	48	0	18	5	1	23	6	12	0	0	18	37	14	6	2	57	8	146	154
Apprch %	2.1	12.5	85.4			0	78.3	21.7			33.3	66.7	0			64.9	24.6	10.5					
Total %	0.7	4.1	28.1		32.9	0	12.3	3.4		15.8	4.1	8.2	0		12.3	25.3	9.6	4.1		39	5.2	94.8	

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**2**	6	**8**	0	0	**1**	1	0	**2**	0	2	5	0	**3**	8	19
07:15 AM	0	1	**7**	8	0	2	0	2	0	0	0	0	**6**	**4**	0	**10**	**20**
07:30 AM	0	0	4	4	0	1	1	2	**1**	0	0	1	2	2	0	4	11
07:45 AM	0	2	5	7	0	**3**	0	**3**	1	2	0	**3**	2	2	1	5	18
Total Volume	0	5	22	27	0	6	2	8	2	4	0	6	15	8	4	27	68
% App. Total	0	18.5	81.5		0	75	25		33.3	66.7	0		55.6	29.6	14.8		
PHF	.000	.625	.786	.844	.000	.500	.500	.667	.500	.500	.000	.500	.625	.500	.333	.675	.850

Packet Pg. 1752

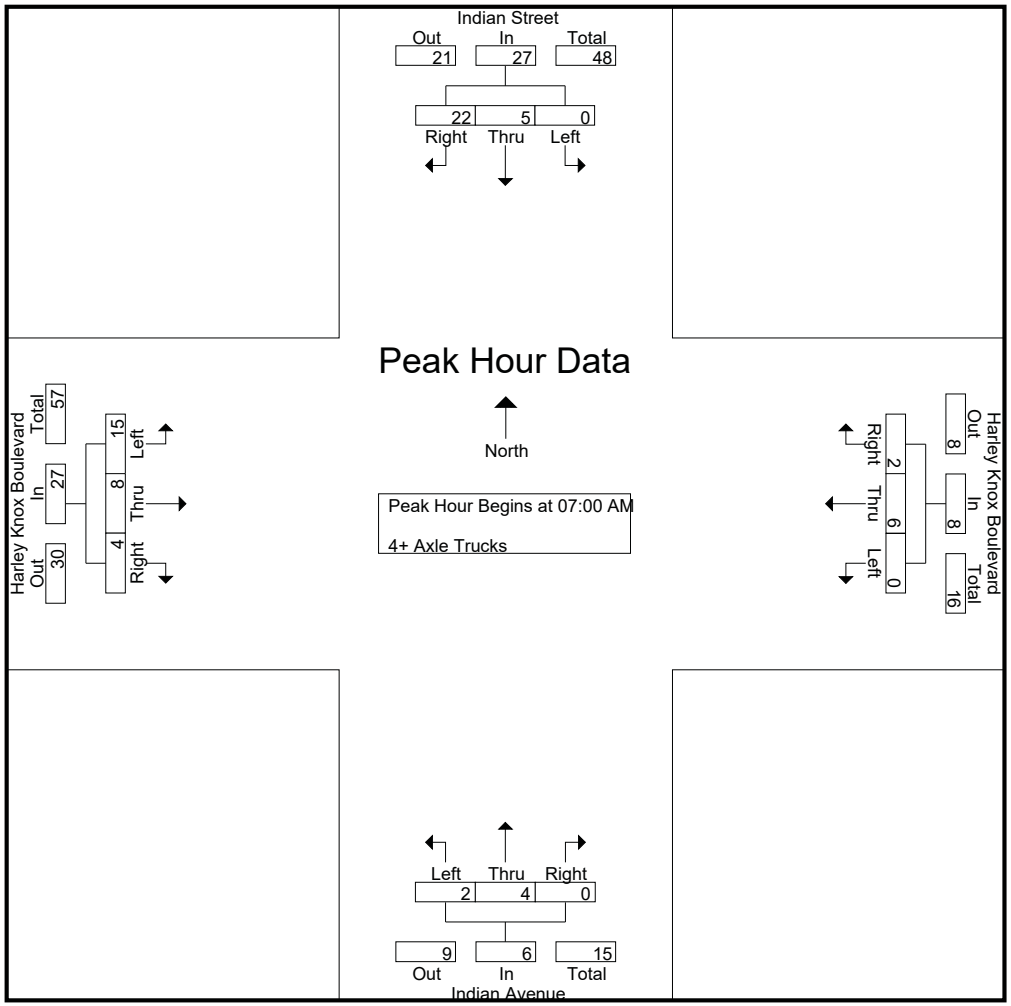
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAAM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	**2**	6	**8**	0	0	**1**	1	0	**2**	0	2	5	0	**3**	8	
+15 mins.	0	1	**7**	8	0	2	0	2	0	0	0	0	**6**	**4**	0	**10**	
+30 mins.	0	0	4	4	0	1	1	2	**1**	0	0	1	2	2	0	4	
+45 mins.	0	2	5	7	0	**3**	0	**3**	1	2	0	**3**	2	2	1	5	
Total Volume	0	5	22	27	0	6	2	8	2	4	0	6	15	8	4	27	
% App. Total	0	18.5	81.5		0	75	25		33.3	66.7	0		55.6	29.6	14.8		
PHF	.000	.625	.786	.844	.000	.500	.500	.667	.500	.500	.000	.500	.625	.500	.333	.675	

Packet Pg. 1754

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Indian Street Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	4	26	55	10	85	3	51	3	1	57	8	33	2	1	43	42	73	9	0	124	12	309	321
04:15 PM	2	18	33	7	53	4	49	1	0	54	5	36	3	1	44	63	68	4	1	135	9	286	295
04:30 PM	2	48	103	27	153	2	58	7	3	67	6	46	8	4	60	86	88	10	3	184	37	464	501
04:45 PM	13	58	138	22	209	4	48	6	5	58	7	38	2	1	47	69	63	11	1	143	29	457	486
Total	21	150	329	66	500	13	206	17	9	236	26	153	15	7	194	260	292	34	5	586	87	1516	1603
05:00 PM	6	33	52	12	91	0	49	6	1	55	13	35	3	2	51	45	64	8	2	117	17	314	331
05:15 PM	6	35	47	8	88	4	25	2	2	31	12	29	2	0	43	35	63	7	2	105	12	267	279
05:30 PM	4	60	89	21	153	1	41	4	0	46	9	46	2	1	57	67	69	5	0	141	22	397	419
05:45 PM	5	44	89	17	138	0	40	8	5	48	6	43	1	0	50	93	63	7	4	163	26	399	425
Total	21	172	277	58	470	5	155	20	8	180	40	153	8	3	201	240	259	27	8	526	77	1377	1454
Grand Total	42	322	606	124	970	18	361	37	17	416	66	306	23	10	395	500	551	61	13	1112	164	2893	3057
Apprch %	4.3	33.2	62.5			4.3	86.8	8.9			16.7	77.5	5.8			45	49.6	5.5					
Total %	1.5	11.1	20.9		33.5	0.6	12.5	1.3		14.4	2.3	10.6	0.8		13.7	17.3	19	2.1		38.4	5.4	94.6	
Passenger Vehicles	41	314	555		1027	12	320	33		382	49	279	22		360	434	523	45		1012	0	0	2781
% Passenger Vehicles	97.6	97.5	91.6	94.4	93.9	66.7	88.6	89.2	100	88.2	74.2	91.2	95.7	100	88.9	86.8	94.9	73.8	76.9	90	0	0	91
Large 2 Axle Vehicles	0	1	4		5	3	6	0		9	4	2	0		6	8	6	1		16	0	0	36
% Large 2 Axle Vehicles	0	0.3	0.7	0	0.5	16.7	1.7	0	0	2.1	6.1	0.7	0	0	1.5	1.6	1.1	1.6	7.7	1.4	0	0	1.2
3 Axle Vehicles	0	1	6		7	3	11	2		16	2	18	1		21	39	6	6		52	0	0	96
% 3 Axle Vehicles	0	0.3	1	0	0.6	16.7	3	5.4	0	3.7	3	5.9	4.3	0	5.2	7.8	1.1	9.8	7.7	4.6	0	0	3.1
4+ Axle Trucks	1	6	41		55	0	24	2		26	11	7	0		18	19	16	9		45	0	0	144
% 4+ Axle Trucks	2.4	1.9	6.8	5.6	5	0	6.6	5.4	0	6	16.7	2.3	0	0	4.4	3.8	2.9	14.8	7.7	4	0	0	4.7

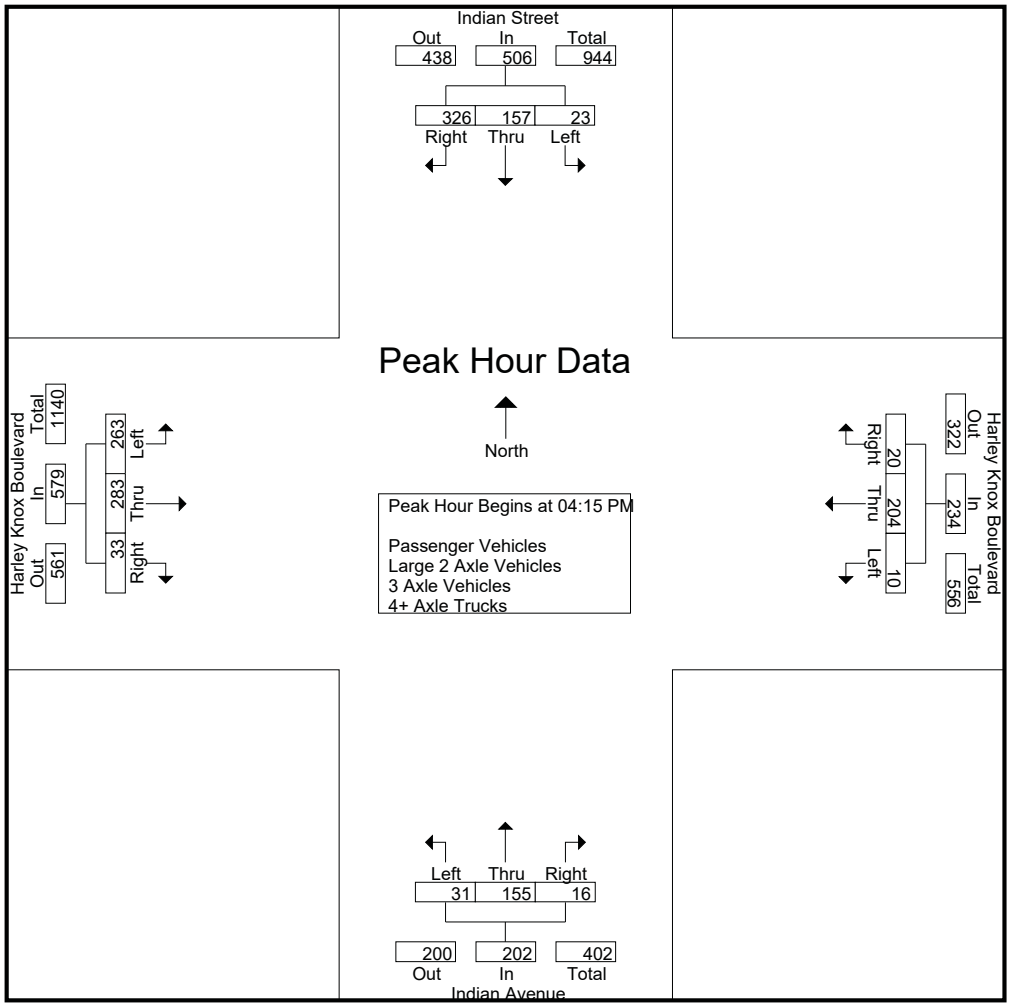
	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	2	18	33	53	**4**	49	1	54	5	36	3	44	63	68	4	135	286
04:30 PM	2	48	103	153	2	**58**	**7**	**67**	6	**46**	**8**	**60**	**86**	**88**	10	**184**	**464**
04:45 PM	**13**	**58**	**138**	**209**	4	48	6	58	7	38	2	47	69	63	**11**	143	457
05:00 PM	6	33	52	91	0	49	6	55	**13**	35	3	51	45	64	8	117	314
Total Volume	23	157	326	506	10	204	20	234	31	155	16	202	263	283	33	579	1521
% App. Total	4.5	31	64.4		4.3	87.2	8.5		15.3	76.7	7.9		45.4	48.9	5.7		
PHF	.442	.677	.591	.605	.625	.879	.714	.873	.596	.842	.500	.842	.765	.804	.750	.787	.820

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:00 PM				04:15 PM				04:00 PM				
+0 mins.	2	48	103	153	3	51	3	57	5	36	3	44	42	73	9	124	
+15 mins.	**13**	**58**	**138**	**209**	**4**	49	1	54	6	**46**	**8**	**60**	63	68	4	135	
+30 mins.	6	33	52	91	2	**58**	**7**	**67**	7	38	2	47	**86**	**88**	10	**184**	
+45 mins.	6	35	47	88	4	48	6	58	**13**	35	3	51	69	63	**11**	143	
Total Volume	27	174	340	541	13	206	17	236	31	155	16	202	260	292	34	586	
% App. Total	5	32.2	62.8		5.5	87.3	7.2		15.3	76.7	7.9		44.4	49.8	5.8		
PHF	.519	.750	.616	.647	.813	.888	.607	.881	.596	.842	.500	.842	.756	.830	.773	.796	

Packet Pg. 1757

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Passenger Vehicles

	Indian Street Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	4	24	46	9	74	1	49	1	1	51	5	29	2	1	36	35	70	6	0	111	11	272	283
04:15 PM	2	17	25	6	44	1	41	1	0	43	3	33	2	1	38	57	61	3	0	121	7	246	253
04:30 PM	2	48	96	25	146	2	50	7	3	59	5	43	8	4	56	68	83	7	2	158	34	419	453
04:45 PM	13	58	129	21	200	3	41	6	5	50	5	35	2	1	42	59	60	7	1	126	28	418	446
Total	21	147	296	61	464	7	181	15	9	203	18	140	14	7	172	219	274	23	3	516	80	1355	1435
05:00 PM	6	33	49	10	88	0	47	4	1	51	13	32	3	2	48	37	60	6	1	103	14	290	304
05:15 PM	5	33	42	8	80	4	22	2	2	28	10	26	2	0	38	30	61	5	2	96	12	242	254
05:30 PM	4	59	84	21	147	1	34	4	0	39	5	42	2	1	49	62	67	4	0	133	22	368	390
05:45 PM	5	42	84	17	131	0	36	8	5	44	3	39	1	0	43	86	61	7	4	154	26	372	398
Total	20	167	259	56	446	5	139	18	8	162	31	139	8	3	178	215	249	22	7	486	74	1272	1346
Grand Total	41	314	555	117	910	12	320	33	17	365	49	279	22	10	350	434	523	45	10	1002	154	2627	2781
Apprch %	4.5	34.5	61			3.3	87.7	9			14	79.7	6.3			43.3	52.2	4.5					
Total %	1.6	12	21.1		34.6	0.5	12.2	1.3		13.9	1.9	10.6	0.8		13.3	16.5	19.9	1.7		38.1	5.5	94.5	

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	2	17	25	44	1	41	1	43	3	33	2	38	57	61	3	121	246
04:30 PM	2	48	96	146	2	**50**	**7**	**59**	5	**43**	**8**	**56**	**68**	**83**	**7**	**158**	**419**
04:45 PM	**13**	**58**	**129**	**200**	**3**	41	6	50	5	35	2	42	59	60	7	126	418
05:00 PM	6	33	49	88	0	47	4	51	**13**	32	3	48	37	60	6	103	290
Total Volume	23	156	299	478	6	179	18	203	26	143	15	184	221	264	23	508	1373
% App. Total	4.8	32.6	62.6		3	88.2	8.9		14.1	77.7	8.2		43.5	52	4.5		
PHF	.442	.672	.579	.598	.500	.895	.643	.860	.500	.831	.469	.821	.813	.795	.821	.804	.819

Packet Pg. 1758

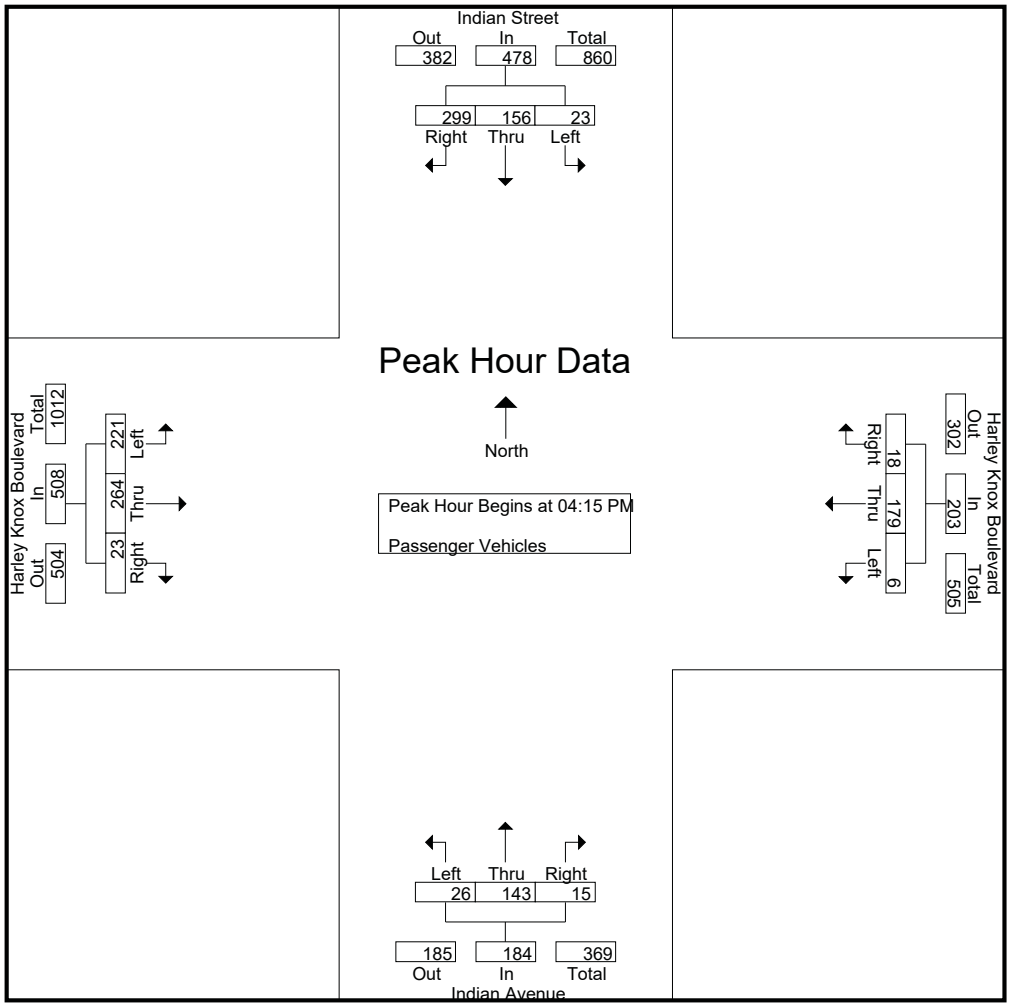
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	2	17	25	44	1	41	1	43	3	33	2	38	57	61	3	121	
+15 mins.	2	48	96	146	2	**50**	**7**	**59**	5	**43**	**8**	**56**	**68**	**83**	**7**	**158**	
+30 mins.	**13**	**58**	**129**	**200**	**3**	41	6	50	5	35	2	42	59	60	7	126	
+45 mins.	6	33	49	88	0	47	4	51	**13**	32	3	48	37	60	6	103	
Total Volume	23	156	299	478	6	179	18	203	26	143	15	184	221	264	23	508	
% App. Total	4.8	32.6	62.6		3	88.2	8.9		14.1	77.7	8.2		43.5	52	4.5		
PHF	.442	.672	.579	.598	.500	.895	.643	.860	.500	.831	.469	.821	.813	.795	.821	.804	

Packet Pg. 1760

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Indian Street Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	1	0	1	2	0	0	0	2	1	0	0	0	1	2	2	0	0	4	0	8	8
04:15 PM	0	0	1	0	1	1	0	0	0	1	0	1	0	0	1	2	2	1	1	5	1	8	9
04:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	1	0	0	0	1	0	4	4
04:45 PM	0	0	2	0	2	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	4	4
Total	0	0	4	0	4	3	4	0	0	7	2	1	0	0	3	5	4	1	1	10	1	24	25
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	2	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	2	2
05:30 PM	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	1	0	0	0	1	0	4	4
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0	2	0	3	3
Total	0	1	0	0	1	0	2	0	0	2	2	1	0	0	3	3	2	0	0	5	0	11	11
Grand Total	0	1	4	0	5	3	6	0	0	9	4	2	0	0	6	8	6	1	1	15	1	35	36
Apprch %	0	20	80			33.3	66.7	0			66.7	33.3	0			53.3	40	6.7					
Total %	0	2.9	11.4		14.3	8.6	17.1	0		25.7	11.4	5.7	0		17.1	22.9	17.1	2.9		42.9	2.8	97.2	

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	1	1	**1**	0	0	1	0	**1**	0	**1**	**2**	**2**	**1**	**5**	**8**
04:30 PM	0	0	0	0	0	**3**	0	**3**	0	0	0	0	1	0	0	1	4
04:45 PM	0	0	**2**	**2**	0	1	0	1	**1**	0	0	1	0	0	0	0	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	2
Total Volume	0	0	3	3	1	4	0	5	1	1	0	2	4	3	1	8	18
% App. Total	0	0	100		20	80	0		50	50	0		50	37.5	12.5		
PHF	.000	.000	.375	.375	.250	.333	.000	.417	.250	.250	.000	.500	.500	.375	.250	.400	.563

Packet Pg. 1761

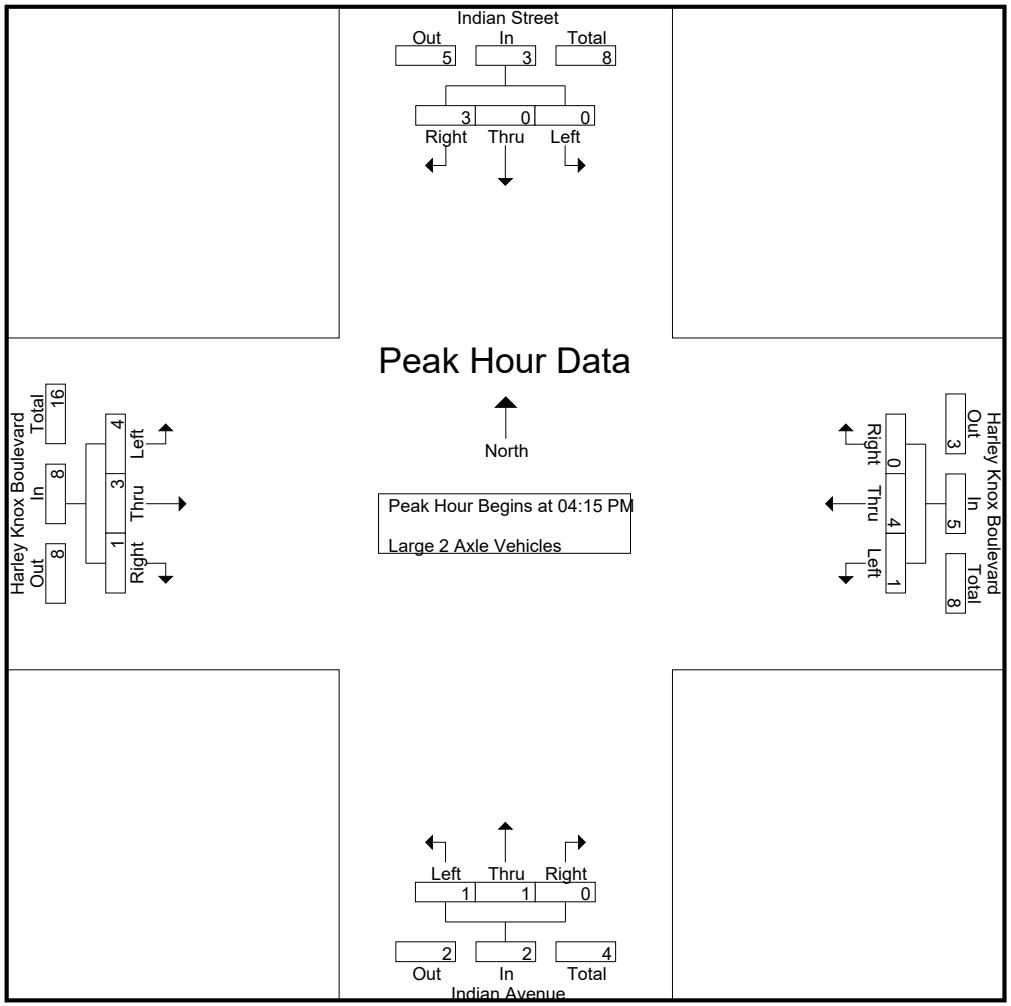
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	1	1	**1**	0	0	1	0	**1**	0	**1**	**2**	**2**	**1**	**5**	
+15 mins.	0	0	0	0	0	**3**	0	**3**	0	0	0	0	1	0	0	1	
+30 mins.	0	0	**2**	**2**	0	1	0	1	**1**	0	0	1	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	
Total Volume	0	0	3	3	1	4	0	5	1	1	0	2	4	3	1	8	
% App. Total	0	0	100		20	80	0		50	50	0		50	37.5	12.5		
PHF	.000	.000	.375	.375	.250	.333	.000	.417	.250	.250	.000	.500	.500	.375	.250	.400	

Packet Pg. 1763

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

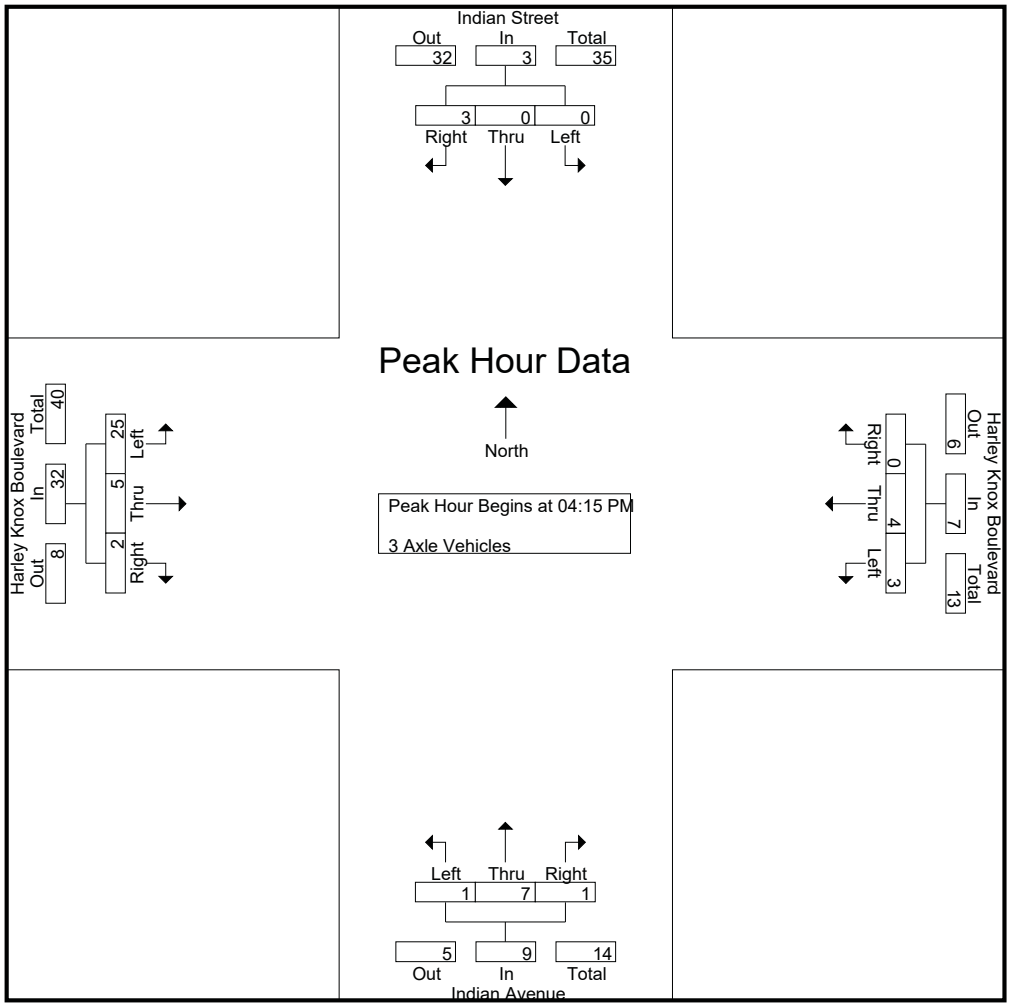
	Indian Street Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	1	0	1	0	1	2	0	3	1	2	0	0	3	4	0	2	0	6	0	13	13
04:15 PM	0	0	1	0	1	2	1	0	0	3	1	1	1	0	3	3	1	0	0	4	0	11	11
04:30 PM	0	0	1	0	1	0	1	0	0	1	0	2	0	0	2	10	3	0	0	13	0	17	17
04:45 PM	0	0	1	0	1	1	1	0	0	2	0	3	0	0	3	6	0	0	0	6	0	12	12
Total	0	0	4	0	4	3	4	2	0	9	2	8	1	0	11	23	4	2	0	29	0	53	53
05:00 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	6	1	2	1	9	1	11	12
05:15 PM	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	1	1	1	0	3	0	6	6
05:30 PM	0	0	1	0	1	0	5	0	0	5	0	4	0	0	4	3	0	1	0	4	0	14	14
05:45 PM	0	1	1	0	2	0	0	0	0	0	0	3	0	0	3	6	0	0	0	6	0	11	11
Total	0	1	2	0	3	0	7	0	0	7	0	10	0	0	10	16	2	4	1	22	1	42	43
Grand Total	0	1	6	0	7	3	11	2	0	16	2	18	1	0	21	39	6	6	1	51	1	95	96
Apprch %	0	14.3	85.7			18.8	68.8	12.5			9.5	85.7	4.8			76.5	11.8	11.8					
Total %	0	1.1	6.3		7.4	3.2	11.6	2.1		16.8	2.1	18.9	1.1		22.1	41.1	6.3	6.3		53.7	1	99	

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	**1**	**1**	**2**	**1**	0	**3**	**1**	1	**1**	**3**	3	1	0	4	11
04:30 PM	0	0	1	1	0	1	0	1	0	2	0	2	**10**	**3**	0	**13**	**17**
04:45 PM	0	0	1	1	1	1	0	2	0	**3**	0	3	6	0	0	6	12
05:00 PM	0	0	0	0	0	1	0	1	0	1	0	1	6	1	**2**	9	11
Total Volume	0	0	3	3	3	4	0	7	1	7	1	9	25	5	2	32	51
% App. Total	0	0	100		42.9	57.1	0		11.1	77.8	11.1		78.1	15.6	6.2		
PHF	.000	.000	.750	.750	.375	1.00	.000	.583	.250	.583	.250	.750	.625	.417	.250	.615	.750

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	**1**	**1**	**2**	**1**	0	**3**	**1**	1	**1**	**3**	3	1	0	4	
+15 mins.	0	0	1	1	0	1	0	1	0	2	0	2	**10**	**3**	0	**13**	
+30 mins.	0	0	1	1	1	1	0	2	0	**3**	0	3	6	0	0	6	
+45 mins.	0	0	0	0	0	1	0	1	0	1	0	1	6	1	**2**	9	
Total Volume	0	0	3	3	3	4	0	7	1	7	1	9	25	5	2	32	
% App. Total	0	0	100		42.9	57.1	0		11.1	77.8	11.1		78.1	15.6	6.2		
PHF	.000	.000	.750	.750	.375	1.000	.000	.583	.250	.583	.250	.750	.625	.417	.250	.615	

Packet Pg. 1766

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Indian Street Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	2	7	1	9	0	1	0	0	1	1	2	0	0	3	1	1	1	0	3	1	16	17
04:15 PM	0	1	6	1	7	0	7	0	0	7	1	1	0	0	2	1	4	0	0	5	1	21	22
04:30 PM	0	0	6	2	6	0	4	0	0	4	1	1	0	0	2	7	2	3	1	12	3	24	27
04:45 PM	0	0	6	1	6	0	5	0	0	5	1	0	0	0	1	4	3	4	0	11	1	23	24
Total	0	3	25	5	28	0	17	0	0	17	4	4	0	0	8	13	10	8	1	31	6	84	90
05:00 PM	0	0	3	2	3	0	1	2	0	3	0	2	0	0	2	1	2	0	0	3	2	11	13
05:15 PM	1	2	5	0	8	0	2	0	0	2	1	0	0	0	1	4	1	1	0	6	0	17	17
05:30 PM	0	0	4	0	4	0	0	0	0	0	4	0	0	0	4	1	2	0	0	3	0	11	11
05:45 PM	0	1	4	0	5	0	4	0	0	4	2	1	0	0	3	0	1	0	0	1	0	13	13
Total	1	3	16	2	20	0	7	2	0	9	7	3	0	0	10	6	6	1	0	13	2	52	54
Grand Total	1	6	41	7	48	0	24	2	0	26	11	7	0	0	18	19	16	9	1	44	8	136	144
Apprch %	2.1	12.5	85.4			0	92.3	7.7			61.1	38.9	0			43.2	36.4	20.5					
Total %	0.7	4.4	30.1		35.3	0	17.6	1.5		19.1	8.1	5.1	0		13.2	14	11.8	6.6		32.4	5.6	94.4	

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	**1**	**6**	**7**	0	**7**	0	**7**	**1**	1	0	**2**	1	**4**	0	5	21
04:30 PM	0	0	6	6	0	4	0	4	1	1	0	2	**7**	2	3	**12**	**24**
04:45 PM	0	0	6	6	0	5	0	5	1	0	0	1	4	3	**4**	11	23
05:00 PM	0	0	3	3	0	1	**2**	3	0	**2**	0	2	1	2	0	3	11
Total Volume	0	1	21	22	0	17	2	19	3	4	0	7	13	11	7	31	79
% App. Total	0	4.5	95.5		0	89.5	10.5		42.9	57.1	0		41.9	35.5	22.6		
PHF	.000	.250	.875	.786	.000	.607	.250	.679	.750	.500	.000	.875	.464	.688	.438	.646	.823

Packet Pg. 1767

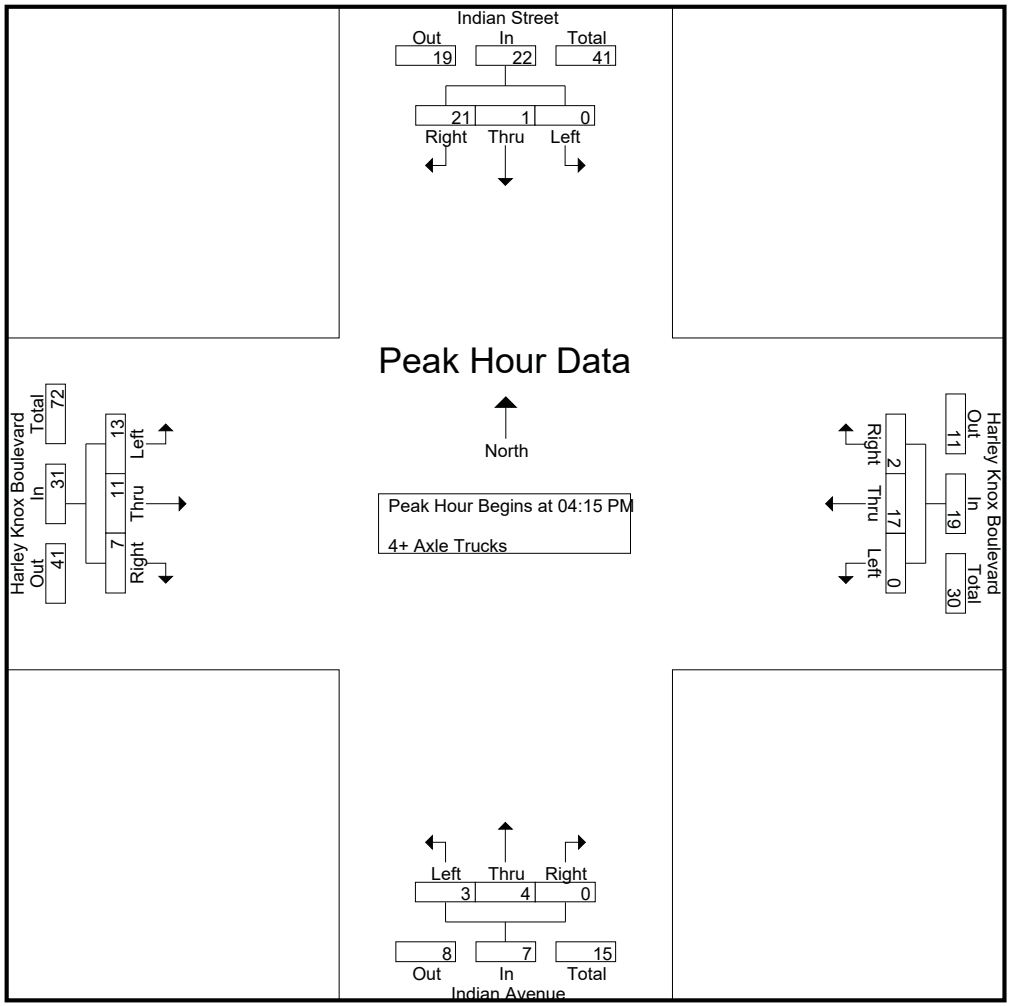
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : PERINHAPM
Site Code : 05115699
Start Date : 12/16/2015
Page No : 3

	Indian Street Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	**1**	**6**	**7**	0	**7**	0	**7**	**1**	1	0	**2**	1	**4**	0	5	
+15 mins.	0	0	6	6	0	4	0	4	1	1	0	2	**7**	2	3	**12**	
+30 mins.	0	0	6	6	0	5	0	5	1	0	0	1	4	3	**4**	11	
+45 mins.	0	0	3	3	0	1	**2**	3	0	**2**	0	2	1	2	0	3	
Total Volume	0	1	21	22	0	17	2	19	3	4	0	7	13	11	7	31	
% App. Total	0	4.5	95.5		0	89.5	10.5		42.9	57.1	0		41.9	35.5	22.6		
PHF	.000	.250	.875	.786	.000	.607	.250	.679	.750	.500	.000	.875	.464	.688	.438	.646	

Packet Pg. 1769

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Location: Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

PEDESTRIANS

	North Leg Indian Street	East Leg Harley Knox Boulevard	South Leg Indian Avenue	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Indian Street	East Leg Harley Knox Boulevard	South Leg Indian Avenue	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	1	0	0	1
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	1

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Location: Perris
N/S: Indian Avenue
E/W: Harley Knox Boulevard

Site Code: 051-15699
Date: 12/16/2015
Weather: Clear

BICYCLES

	North Leg Indian Street	East Leg Harley Knox Boulevard	South Leg Indian Avenue	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	1	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	1

	North Leg Indian Street	East Leg Harley Knox Boulevard	South Leg Indian Avenue	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
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951-268-6268

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
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City of Moreno Valley
Indian Street
S/ Grove View Road
24 Hour Directional Classification Count

MRVINSGV
Site Code: 051-15699

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
12/16/15	0	12	5	0	2	4	0	1	12	0	**1**	0	0	37
01:00	2	8	5	0	1	2	0	3	19	0	0	0	0	40
02:00	3	17	1	1	2	0	0	8	**20**	0	0	0	0	52
03:00	3	57	14	7	5	1	0	6	16	0	0	0	0	109
04:00	5	154	51	2	13	2	0	2	8	0	0	0	0	237
05:00	13	**635**	**111**	6	14	**9**	0	5	6	0	0	0	0	**799**
06:00	10	492	84	13	24	4	0	5	16	0	0	**1**	0	649
07:00	11	157	78	6	**29**	6	0	7	8	0	0	0	0	302
08:00	**27**	62	48	10	26	8	1	4	6	0	0	0	0	192
09:00	21	58	32	10	23	7	14	6	9	0	0	0	0	180
10:00	16	63	29	**15**	28	8	**16**	**9**	12	0	0	0	0	196
11:00	17	72	35	14	24	9	10	7	14	0	1	0	0	203
12 PM	**14**	89	31	9	**23**	7	6	**7**	**16**	0	0	1	0	203
13:00	10	129	47	11	22	10	7	4	16	0	0	0	0	256
14:00	13	126	40	11	12	8	9	3	14	0	0	**2**	0	238
15:00	13	142	41	12	23	9	6	4	13	0	**1**	0	0	264
16:00	10	273	**75**	9	15	8	**18**	3	7	0	0	0	**1**	**419**
17:00	7	**298**	64	7	12	**11**	11	4	3	0	0	0	0	417
18:00	8	235	54	**13**	7	7	8	4	11	0	0	0	0	347
19:00	1	55	17	2	4	2	0	6	16	0	0	0	0	103
20:00	2	35	6	4	9	0	0	2	8	0	0	0	0	66
21:00	0	43	11	2	3	3	0	0	16	0	0	0	1	79
22:00	1	84	19	1	5	1	0	2	10	0	0	0	0	123
23:00	2	21	7	2	3	2	0	4	15	0	0	0	0	56
Total	209	3317	905	167	329	128	106	106	291	0	3	4	2	5567
Percent	3.8%	59.6%	16.3%	3.0%	5.9%	2.3%	1.9%	1.9%	5.2%	0.0%	0.1%	0.1%	0.0%	
AM Peak	08:00	05:00	05:00	10:00	07:00	05:00	10:00	10:00	02:00		00:00	06:00		05:00
Vol.	27	635	111	15	29	9	16	9	20		1	1		799
PM Peak	12:00	17:00	16:00	18:00	12:00	17:00	16:00	12:00	12:00		15:00	14:00	16:00	16:00
Vol.	14	298	75	13	23	11	18	7	16		1	2	1	419
Grand Total	209	3317	905	167	329	128	106	106	291	0	3	4	2	5567
Percent	3.8%	59.6%	16.3%	3.0%	5.9%	2.3%	1.9%	1.9%	5.2%	0.0%	0.1%	0.1%	0.0%	

Packet Pg. 1772

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email.counts@countsunlimited.com

City of Moreno Valley
Indian Street
S/ Grove View Road
24 Hour Directional Classification Count

MRVINSGV
Site Code: 051-15699

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
12/16/15	5	53	7	0	2	8	0	3	6	0	**1**	0	0	85
01:00	3	29	4	1	1	7	0	0	12	0	0	1	0	58
02:00	6	17	3	1	4	7	0	1	10	0	1	**3**	0	53
03:00	9	192	28	0	2	14	0	1	11	0	0	0	0	257
04:00	8	163	23	5	2	11	0	1	7	0	1	1	0	222
05:00	5	158	25	0	4	9	0	3	5	0	0	0	0	209
06:00	9	**458**	**56**	3	7	10	0	2	8	0	0	1	0	**554**
07:00	9	114	25	1	10	13	0	**11**	7	0	0	0	0	190
08:00	8	75	17	**6**	**17**	16	0	1	14	0	0	0	0	154
09:00	**15**	85	22	1	13	26	0	6	12	0	0	0	0	180
10:00	12	73	25	3	11	**27**	0	4	7	0	0	0	0	162
11:00	9	83	27	4	13	20	**1**	10	**15**	0	0	0	0	182
12 PM	12	122	25	5	13	**34**	0	4	17	0	0	0	0	232
13:00	10	241	66	3	**21**	20	0	**12**	16	0	0	0	0	389
14:00	8	169	33	**9**	11	22	0	10	22	0	0	0	0	284
15:00	10	184	48	2	7	14	0	3	10	0	0	0	0	278
16:00	**17**	378	63	3	14	15	0	1	9	0	0	0	0	500
17:00	13	375	**75**	0	10	10	0	1	9	0	0	0	0	493
18:00	10	**562**	66	0	14	13	0	3	16	0	0	**1**	0	**685**
19:00	4	79	18	1	8	6	0	2	**23**	0	0	0	0	141
20:00	2	37	6	2	4	1	0	9	12	0	0	0	0	73
21:00	6	56	9	0	3	6	0	2	17	0	0	0	0	99
22:00	2	114	22	0	1	4	0	1	13	0	0	0	0	157
23:00	3	49	14	1	4	2	0	1	9	0	**1**	0	**1**	85
Total	195	3866	707	51	196	315	1	92	287	0	4	7	1	5722
Percent	3.4%	67.6%	12.4%	0.9%	3.4%	5.5%	0.0%	1.6%	5.0%	0.0%	0.1%	0.1%	0.0%	
AM Peak	09:00	06:00	06:00	08:00	08:00	10:00	11:00	07:00	11:00		00:00	02:00		06:00
Vol.	15	458	56	6	17	27	1	11	15		1	3		554
PM Peak	16:00	18:00	17:00	14:00	13:00	12:00		13:00	19:00		23:00	18:00	23:00	18:00
Vol.	17	562	75	9	21	34		12	23		1	1	1	685
Grand Total	195	3866	707	51	196	315	1	92	287	0	4	7	1	5722
Percent	3.4%	67.6%	12.4%	0.9%	3.4%	5.5%	0.0%	1.6%	5.0%	0.0%	0.1%	0.1%	0.0%	

Packet Pg. 1773

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email.counts@countsunlimited.com

City of Moreno Valley
Indian Street
S/ Grove View Road
24 Hour Directional Classification Count

MRVINSGV
Site Code: 051-15699

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
12/16/15	5	65	12	0	4	12	0	4	18	0	**2**	0	0	122
01:00	5	37	9	1	2	9	0	3	**31**	0	0	1	0	98
02:00	9	34	4	2	6	7	0	9	30	0	1	**3**	0	105
03:00	12	249	42	7	7	15	0	7	27	0	0	0	0	366
04:00	13	317	74	7	15	13	0	3	15	0	1	1	0	459
05:00	18	793	136	6	18	18	0	8	11	0	0	0	0	1008
06:00	19	**950**	**140**	16	31	14	0	7	24	0	0	2	0	**1203**
07:00	20	271	103	7	39	19	0	**18**	15	0	0	0	0	492
08:00	35	137	65	16	**43**	24	1	5	20	0	0	0	0	346
09:00	**36**	143	54	11	36	33	14	12	21	0	0	0	0	360
10:00	28	136	54	**18**	39	**35**	**16**	13	19	0	0	0	0	358
11:00	26	155	62	18	37	29	11	17	29	0	1	0	0	385
12 PM	26	211	56	14	36	**41**	6	11	33	0	0	1	0	435
13:00	20	370	113	14	**43**	30	7	**16**	32	0	0	0	0	645
14:00	21	295	73	**20**	23	30	9	13	36	0	0	**2**	0	522
15:00	23	326	89	14	30	23	6	7	23	0	**1**	0	0	542
16:00	**27**	651	138	12	29	23	**18**	4	16	0	0	0	**1**	919
17:00	20	673	**139**	7	22	21	11	5	12	0	0	0	0	910
18:00	18	**797**	120	13	21	20	8	7	27	0	0	1	0	**1032**
19:00	5	134	35	3	12	8	0	8	**39**	0	0	0	0	244
20:00	4	72	12	6	13	1	0	11	20	0	0	0	0	139
21:00	6	99	20	2	6	9	0	2	33	0	0	0	1	178
22:00	3	198	41	1	6	5	0	3	23	0	0	0	0	280
23:00	5	70	21	3	7	4	0	5	24	0	1	0	1	141
Total	404	7183	1612	218	525	443	107	198	578	0	7	11	3	11289
Percent	3.6%	63.6%	14.3%	1.9%	4.7%	3.9%	0.9%	1.8%	5.1%	0.0%	0.1%	0.1%	0.0%	
AM Peak	09:00	06:00	06:00	10:00	08:00	10:00	10:00	07:00	01:00		00:00	02:00		06:00
Vol.	36	950	140	18	43	35	16	18	31		2	3		1203
PM Peak	16:00	18:00	17:00	14:00	13:00	12:00	16:00	13:00	19:00		15:00	14:00	16:00	18:00
Vol.	27	797	139	20	43	41	18	16	39		1	2	1	1032
Grand Total	404	7183	1612	218	525	443	107	198	578	0	7	11	3	11289
Percent	3.6%	63.6%	14.3%	1.9%	4.7%	3.9%	0.9%	1.8%	5.1%	0.0%	0.1%	0.1%	0.0%	

Packet Pg. 1774

E.2.p

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email.counts@countsunlimited.com

City of Moreno Valley
Harley Knox Boulevard
W/ Indian Street
24 Hour Directional Classification Count

MRVHKWIN
Site Code: 051-15699

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
12/16/15	4	41	5	0	3	5	0	6	17	0	2	0	0	83
01:00	7	23	3	0	3	4	0	1	23	0	0	0	0	64
02:00	3	29	4	2	3	3	0	8	24	0	0	0	0	76
03:00	4	92	15	1	9	6	0	9	19	0	0	0	0	155
04:00	7	228	58	0	16	6	0	1	10	0	0	0	0	326
05:00	14	**613**	**104**	4	22	17	0	4	6	0	0	**1**	0	**785**
06:00	**15**	443	103	5	38	14	0	3	16	0	0	1	0	638
07:00	5	339	81	8	**39**	10	0	11	19	0	3	0	0	515
08:00	11	158	58	5	25	13	0	11	15	0	2	0	0	298
09:00	10	103	35	7	26	17	**13**	9	27	0	0	0	0	247
10:00	8	103	47	**13**	32	26	13	16	24	0	**4**	0	**1**	287
11:00	10	123	48	13	27	**34**	5	**22**	**33**	0	4	0	0	319
12 PM	7	244	76	15	**37**	17	5	**22**	**38**	**2**	2	2	0	467
13:00	11	262	81	**18**	31	**24**	7	13	38	0	0	0	0	485
14:00	7	182	58	14	31	22	10	6	30	0	**3**	**3**	**1**	367
15:00	9	270	74	8	32	19	6	5	27	0	0	2	0	452
16:00	12	**397**	**107**	5	33	9	**18**	8	18	1	1	0	0	**609**
17:00	7	397	92	1	28	16	9	3	10	0	0	0	0	563
18:00	12	339	80	2	21	15	9	4	7	0	0	0	0	489
19:00	**16**	169	36	3	13	22	0	6	20	0	0	0	0	285
20:00	10	121	30	2	12	10	0	4	9	0	1	0	0	199
21:00	7	102	15	2	5	9	0	3	17	0	0	0	0	160
22:00	6	122	20	0	10	11	0	1	14	0	0	0	0	184
23:00	7	54	10	1	2	12	0	6	16	0	0	0	0	108
Total	209	4954	1240	129	498	341	95	182	477	3	22	9	2	8161
Percent	2.6%	60.7%	15.2%	1.6%	6.1%	4.2%	1.2%	2.2%	5.8%	0.0%	0.3%	0.1%	0.0%	
AM Peak	06:00	05:00	05:00	10:00	07:00	11:00	09:00	11:00	11:00		10:00	05:00	10:00	05:00
Vol.	15	613	104	13	39	34	13	22	33		4	1	1	785
PM Peak	19:00	16:00	16:00	13:00	12:00	13:00	16:00	12:00	12:00	12:00	14:00	14:00	14:00	16:00
Vol.	16	397	107	18	37	24	18	22	38	2	3	3	1	609
Grand Total	209	4954	1240	129	498	341	95	182	477	3	22	9	2	8161
Percent	2.6%	60.7%	15.2%	1.6%	6.1%	4.2%	1.2%	2.2%	5.8%	0.0%	0.3%	0.1%	0.0%	

Packet Pg. 1775

E.2.p

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email.counts@countsunlimited.com

City of Moreno Valley
Harley Knox Boulevard
W/ Indian Street
24 Hour Directional Classification Count

MRVHKWIN
Site Code: 051-15699

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
12/16/15	3	56	9	0	13	4	0	13	3	0	1	0	0	102
01:00	2	31	6	1	7	5	0	6	6	0	1	1	0	66
02:00	5	23	4	1	8	2	0	7	3	0	1	**3**	0	57
03:00	**12**	138	30	1	7	13	0	13	2	**1**	0	0	0	217
04:00	3	174	51	7	16	11	0	5	1	0	1	1	0	270
05:00	4	210	59	4	42	12	0	9	4	0	1	0	0	345
06:00	10	**487**	**127**	4	**56**	**43**	0	13	1	0	1	1	**1**	**744**
07:00	11	440	112	7	41	12	0	11	4	1	2	0	0	641
08:00	11	176	52	4	39	16	0	20	6	0	1	0	0	325
09:00	8	126	39	12	30	21	0	24	**12**	0	2	0	0	274
10:00	9	96	50	**15**	34	17	0	21	10	0	**5**	0	0	257
11:00	6	139	56	14	43	16	**1**	**29**	6	1	4	0	0	315
12 PM	6	197	70	14	55	**23**	**2**	35	8	**1**	0	0	0	411
13:00	7	246	94	15	**63**	11	1	31	7	1	**3**	0	0	479
14:00	11	261	84	**17**	53	23	0	**45**	8	0	0	0	0	502
15:00	8	250	**95**	11	40	12	0	27	8	0	0	0	0	451
16:00	**13**	**388**	93	4	47	13	0	24	**9**	0	2	0	0	**593**
17:00	9	315	87	3	40	10	0	10	9	0	1	**1**	0	485
18:00	8	381	85	1	30	11	0	8	4	0	3	1	0	532
19:00	6	119	30	1	12	8	0	25	6	0	0	0	0	207
20:00	4	53	18	3	5	3	0	23	6	0	0	0	0	115
21:00	7	81	15	1	5	6	0	15	9	0	0	0	0	139
22:00	2	98	23	0	10	4	0	10	7	0	0	0	0	154
23:00	5	58	10	1	12	4	0	9	4	0	0	0	**1**	104
Total	170	4543	1299	141	708	300	4	433	143	5	29	8	2	7785
Percent	2.2%	58.4%	16.7%	1.8%	9.1%	3.9%	0.1%	5.6%	1.8%	0.1%	0.4%	0.1%	0.0%	
AM Peak	03:00	06:00	06:00	10:00	06:00	06:00	11:00	11:00	09:00	03:00	10:00	02:00	06:00	06:00
Vol.	12	487	127	15	56	43	1	29	12	1	5	3	1	744
PM Peak	16:00	16:00	15:00	14:00	13:00	12:00	12:00	14:00	16:00	12:00	13:00	17:00	23:00	16:00
Vol.	13	388	95	17	63	23	2	45	9	1	3	1	1	593
Grand Total	170	4543	1299	141	708	300	4	433	143	5	29	8	2	7785
Percent	2.2%	58.4%	16.7%	1.8%	9.1%	3.9%	0.1%	5.6%	1.8%	0.1%	0.4%	0.1%	0.0%	

Packet Pg. 1776

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Counts Unlimited, Inc.

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City of Moreno Valley
Harley Knox Boulevard
W/ Indian Street
24 Hour Directional Classification Count

MRVHKWIN
Site Code: 051-15699

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
12/16/15	7	97	14	0	16	9	0	19	20	0	3	0	0	185
01:00	9	54	9	1	10	9	0	7	29	0	1	1	0	130
02:00	8	52	8	3	11	5	0	15	27	0	1	**3**	0	133
03:00	16	230	45	2	16	19	0	22	21	**1**	0	0	0	372
04:00	10	402	109	7	32	17	0	6	11	0	1	1	0	596
05:00	18	823	163	8	64	29	0	13	10	0	1	1	0	1130
06:00	**25**	**930**	**230**	9	**94**	**57**	0	16	17	0	1	2	**1**	**1382**
07:00	16	779	193	15	80	22	0	22	23	1	5	0	0	1156
08:00	22	334	110	9	64	29	0	31	21	0	3	0	0	623
09:00	18	229	74	19	56	38	**13**	33	**39**	0	2	0	0	521
10:00	17	199	97	**28**	66	43	13	37	34	0	**9**	0	1	544
11:00	16	262	104	27	70	50	6	**51**	39	1	8	0	0	634
12 PM	13	441	146	29	92	40	7	**57**	**46**	**3**	2	2	0	878
13:00	18	508	175	**33**	**94**	35	8	44	45	1	**3**	0	0	964
14:00	18	443	142	31	84	**45**	10	51	38	0	3	**3**	**1**	869
15:00	17	520	169	19	72	31	6	32	35	0	0	2	0	903
16:00	**25**	**785**	**200**	9	80	22	**18**	32	27	1	3	0	0	**1202**
17:00	16	712	179	4	68	26	9	13	19	0	1	1	0	1048
18:00	20	720	165	3	51	26	9	12	11	0	3	1	0	1021
19:00	22	288	66	4	25	30	0	31	26	0	0	0	0	492
20:00	14	174	48	5	17	13	0	27	15	0	1	0	0	314
21:00	14	183	30	3	10	15	0	18	26	0	0	0	0	299
22:00	8	220	43	0	20	15	0	11	21	0	0	0	0	338
23:00	12	112	20	2	14	16	0	15	20	0	0	0	1	212
Total	379	9497	2539	270	1206	641	99	615	620	8	51	17	4	15946
Percent	2.4%	59.6%	15.9%	1.7%	7.6%	4.0%	0.6%	3.9%	3.9%	0.1%	0.3%	0.1%	0.0%	
AM Peak	06:00	06:00	06:00	10:00	06:00	06:00	09:00	11:00	09:00	03:00	10:00	02:00	06:00	06:00
Vol.	25	930	230	28	94	57	13	51	39	1	9	3	1	1382
PM Peak	16:00	16:00	16:00	13:00	13:00	14:00	16:00	12:00	12:00	12:00	13:00	14:00	14:00	16:00
Vol.	25	785	200	33	94	45	18	57	46	3	3	3	1	1202
Grand Total	379	9497	2539	270	1206	641	99	615	620	8	51	17	4	15946
Percent	2.4%	59.6%	15.9%	1.7%	7.6%	4.0%	0.6%	3.9%	3.9%	0.1%	0.3%	0.1%	0.0%	

Packet Pg. 1777

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 3.2:

EXISTING (2015) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	557	10	169	206	0	0	0	0	357	3	140
Future Volume (veh/h)	0	557	10	169	206	0	0	0	0	357	3	140
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	612	8	186	226	0				392	3	89
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1862	833	212	2420	0				443	3	398
Arrive On Green	0.00	0.52	0.52	0.23	1.00	0.00				0.25	0.25	0.25
Sat Flow, veh/h	0	3705	1615	1810	3705	0				1796	14	1615
Grp Volume(v), veh/h	0	612	8	186	226	0				395	0	89
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1810	1805	0				1810	0	1615
Q Serve(g_s), s	0.0	11.9	0.3	11.9	0.0	0.0				25.2	0.0	5.3
Cycle Q Clear(g_c), s	0.0	11.9	0.3	11.9	0.0	0.0				25.2	0.0	5.3
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	1862	833	212	2420	0				446	0	398
V/C Ratio(X)	0.00	0.33	0.01	0.88	0.09	0.00				0.89	0.00	0.22
Avail Cap(c_a), veh/h	0	1862	833	369	2420	0				679	0	606
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.98	0.98	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	16.9	14.1	45.1	0.0	0.0				43.6	0.0	36.1
Incr Delay (d2), s/veh	0.0	0.5	0.0	4.8	0.1	0.0				9.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.0	0.1	6.2	0.0	0.0				13.7	0.0	2.4
LnGrp Delay(d),s/veh	0.0	17.4	14.2	50.0	0.1	0.0				52.7	0.0	36.3
LnGrp LOS		B	B	D	A					D		D
Approach Vol, veh/h		620			412						484	
Approach Delay, s/veh		17.4			22.6						49.7	
Approach LOS		B			C						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	18.5	66.9		34.6		85.4		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	24.5	36.0		45.0		65.0		
Max Q Clear Time (g_c+I1), s	13.9	13.9		27.2		2.0		
Green Ext Time (p_c), s	0.2	3.3		2.3		3.6		

Intersection Summary	
HCM 2010 Ctrl Delay	29.1
HCM 2010 LOS	C

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
2: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	315	599	0	0	362	504	12	4	105	0	0	0
Future Volume (veh/h)	315	599	0	0	362	504	12	4	105	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	362	689	0	0	416	553	14	5	67			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	384	2798	0	0	1926	862	191	68	229			
Arrive On Green	0.42	1.00	0.00	0.00	0.53	0.53	0.14	0.14	0.14			
Sat Flow, veh/h	1810	3705	0	0	3705	1615	1350	482	1615			
Grp Volume(v), veh/h	362	689	0	0	416	553	19	0	67			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1615	1832	0	1615			
Q Serve(g_s), s	23.0	0.0	0.0	0.0	7.3	29.1	1.1	0.0	4.5			
Cycle Q Clear(g_c), s	23.0	0.0	0.0	0.0	7.3	29.1	1.1	0.0	4.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.74		1.00			
Lane Grp Cap(c), veh/h	384	2798	0	0	1926	862	260	0	229			
V/C Ratio(X)	0.94	0.25	0.00	0.00	0.22	0.64	0.07	0.00	0.29			
Avail Cap(c_a), veh/h	596	2798	0	0	1926	862	260	0	229			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.94	0.94	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.8	0.0	0.0	0.0	14.8	19.8	44.7	0.0	46.1			
Incr Delay (d2), s/veh	13.3	0.2	0.0	0.0	0.3	3.7	0.5	0.0	3.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	12.7	0.1	0.0	0.0	3.7	13.8	0.6	0.0	2.2			
LnGrp Delay(d),s/veh	47.1	0.2	0.0	0.0	15.0	23.5	45.2	0.0	49.3			
LnGrp LOS	D	A			B	C	D		D			
Approach Vol, veh/h		1051			969			86				
Approach Delay, s/veh		16.4			19.9			48.4				
Approach LOS		B			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		98.0			29.0	69.0		22.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		93.0			39.5	50.0		17.0
Max Q Clear Time (g_c+I1), s		2.0			25.0	31.1		6.5
Green Ext Time (p_c), s		6.4			0.4	5.6		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	19.3
HCM 2010 LOS	B

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	68	636	798	26	2	68
Future Vol, veh/h	68	636	798	26	2	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	83	776	973	32	2	83

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	973	0	-	0	1527	487
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	554	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	717	-	-	-	*169	532
Stage 1	-	-	-	-	*332	-
Stage 2	-	-	-	-	*780	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	717	-	-	-	*134	532
Mov Cap-2 Maneuver	-	-	-	-	*134	-
Stage 1	-	-	-	-	*332	-
Stage 2	-	-	-	-	*622	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	717	-	-	-	490
HCM Lane V/C Ratio	0.116	-	-	-	0.174
HCM Control Delay (s)	10.7	0.9	-	-	13.9
HCM Lane LOS	B	A	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)

4: Patterson Avenue & Harley Knox Boulevard

1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	553	11	1	708	14	79	2	6	3	4	6
Future Volume (veh/h)	9	553	11	1	708	14	79	2	6	3	4	6
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	674	11	1	863	17	96	2	2	4	5	5
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	24	1579	707	2	1536	687	617	13	11	329	392	635
Arrive On Green	0.01	0.44	0.44	0.00	0.43	0.43	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1810	3610	1615	1810	3610	1615	1370	33	29	690	997	1615
Grp Volume(v), veh/h	11	674	11	1	863	17	100	0	0	9	0	5
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1805	1615	1431	0	0	1687	0	1615
Q Serve(g_s), s	0.5	11.6	0.3	0.0	16.2	0.6	4.0	0.0	0.0	0.0	0.0	0.2
Cycle Q Clear(g_c), s	0.5	11.6	0.3	0.0	16.2	0.6	4.2	0.0	0.0	0.3	0.0	0.2
Prop In Lane	1.00		1.00	1.00		1.00	0.96		0.02	0.44		1.00
Lane Grp Cap(c), veh/h	24	1579	707	2	1536	687	641	0	0	721	0	635
V/C Ratio(X)	0.46	0.43	0.02	0.40	0.56	0.02	0.16	0.00	0.00	0.01	0.00	0.01
Avail Cap(c_a), veh/h	207	1579	707	107	1536	687	641	0	0	721	0	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.1	17.5	14.3	44.9	19.5	15.0	17.9	0.0	0.0	16.6	0.0	16.6
Incr Delay (d2), s/veh	4.9	0.8	0.0	34.8	1.5	0.1	0.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	6.0	0.2	0.0	8.3	0.3	1.7	0.0	0.0	0.1	0.0	0.1
LnGrp Delay(d),s/veh	49.0	18.4	14.4	79.7	21.0	15.1	18.4	0.0	0.0	16.7	0.0	16.6
LnGrp LOS	D	B	B	E	C	B	B			B		B
Approach Vol, veh/h		696			881			100			14	
Approach Delay, s/veh		18.8			21.0			18.4			16.7	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.3	45.2		40.5	5.4	44.1		40.5
Change Period (Y+Rc), s	* 4.2	5.8		5.1	* 4.2	5.8		5.1
Max Green Setting (Gmax), s	* 5.3	34.2		35.4	* 10	29.2		35.4
Max Q Clear Time (g_c+I1), s	2.0	13.6		2.3	2.5	18.2		6.2
Green Ext Time (p_c), s	0.0	6.9		0.4	0.0	5.1		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.9
HCM 2010 LOS	B

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	553	2	0	721	0	3
Future Vol, veh/h	553	2	0	721	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	643	2	0	838	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	645	0	979	323
Stage 1	-	-	-	-	644	-
Stage 2	-	-	-	-	335	-
Critical Hdwy	-	-	5.3	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	-	-	3.1	-	3.8	3.9
Pot Cap-1 Maneuver	-	-	948	-	*323	*800
Stage 1	-	-	-	-	*762	-
Stage 2	-	-	-	-	*780	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	948	-	*323	*800
Mov Cap-2 Maneuver	-	-	-	-	*323	-
Stage 1	-	-	-	-	*762	-
Stage 2	-	-	-	-	*780	-

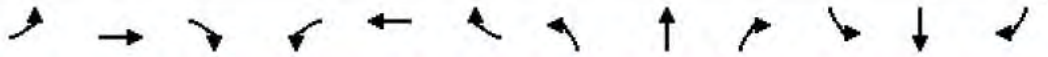
Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	800	-	-	948	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	9.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)
6: Indian Street & Nandina Avenue — 1/6/2016



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	22	107	50	15	5	71	214	33	6	63	4
Future Volume (veh/h)	1	22	107	50	15	5	71	214	33	6	63	4
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	26	75	60	18	5	85	255	32	7	75	4
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	73	227	291	83	237	201	110	1845	229	16	1808	96
Arrive On Green	0.04	0.12	0.12	0.05	0.12	0.12	0.06	0.57	0.57	0.01	0.52	0.52
Sat Flow, veh/h	1810	1900	1615	1810	1900	1611	1810	3232	401	1810	3484	184
Grp Volume(v), veh/h	1	26	75	60	18	5	85	141	146	7	39	40
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1611	1810	1805	1829	1810	1805	1863
Q Serve(g_s), s	0.0	1.0	2.3	2.6	0.7	0.2	3.7	2.9	3.0	0.3	0.8	0.9
Cycle Q Clear(g_c), s	0.0	1.0	2.3	2.6	0.7	0.2	3.7	2.9	3.0	0.3	0.8	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		0.10
Lane Grp Cap(c), veh/h	73	227	291	83	237	201	110	1030	1044	16	937	967
V/C Ratio(X)	0.01	0.11	0.26	0.72	0.08	0.02	0.77	0.14	0.14	0.43	0.04	0.04
Avail Cap(c_a), veh/h	120	570	582	131	582	493	176	1030	1044	120	937	967
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	31.5	15.3	37.7	30.9	22.0	37.0	8.0	8.0	39.4	9.5	9.5
Incr Delay (d2), s/veh	0.0	0.1	0.2	4.3	0.0	0.0	4.3	0.3	0.3	6.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.5	1.0	1.4	0.4	0.1	2.0	1.5	1.6	0.2	0.4	0.5
LnGrp Delay(d),s/veh	36.9	31.5	15.5	42.0	31.0	22.1	41.4	8.3	8.3	45.9	9.5	9.5
LnGrp LOS	D	C	B	D	C	C	D	A	A	D	A	A
Approach Vol, veh/h		102			83			372			86	
Approach Delay, s/veh		19.8			38.4			15.8			12.5	
Approach LOS		B			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	51.9	7.9	15.3	9.1	47.7	7.4	15.8
Change Period (Y+Rc), s	* 4.2	6.2	4.2	* 5.8	* 4.2	6.2	4.2	* 5.8
Max Green Setting (Gmax), s	* 5.3	24.5	5.8	* 24	* 7.8	22.0	5.3	* 25
Max Q Clear Time (g_c+I1), s	2.3	5.0	4.6	4.3	5.7	2.9	2.0	2.7
Green Ext Time (p_c), s	0.0	1.0	0.0	0.1	0.0	1.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.9
HCM 2010 LOS	B

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	15	5	328	30	1	228
Future Vol, veh/h	15	5	328	30	1	228
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	210	0	-	-	120	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	6	390	36	1	271

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	682	408	0	0	426	0
Stage 1	408	-	-	-	-	-
Stage 2	274	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	432	648	-	-	1144	-
Stage 1	676	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	431	648	-	-	1144	-
Mov Cap-2 Maneuver	531	-	-	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	823	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	531	648	1144	-
HCM Lane V/C Ratio	-	-	0.034	0.009	0.001	-
HCM Control Delay (s)	-	-	12	10.6	8.2	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	0	-

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)
10: Indian Street & Harley Knox Boulevard — 6/24/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	301	45	15	446	20	64	148	16	5	61	174
Future Volume (veh/h)	216	301	45	15	446	20	64	148	16	5	61	174
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	235	327	41	16	485	15	70	161	3	5	66	157
Adj No. of Lanes	1	3	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1321	5530	1722	32	1746	54	148	1429	639	12	614	549
Arrive On Green	0.73	1.00	1.00	0.02	0.34	0.34	0.04	0.40	0.40	0.01	0.34	0.34
Sat Flow, veh/h	1810	5187	1615	1810	5167	159	3510	3610	1615	1810	1805	1615
Grp Volume(v), veh/h	235	327	41	16	324	176	70	161	3	5	66	157
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1868	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	4.0	0.0	0.0	0.9	6.8	6.9	1.9	2.8	0.1	0.3	2.5	7.1
Cycle Q Clear(g_c), s	4.0	0.0	0.0	0.9	6.8	6.9	1.9	2.8	0.1	0.3	2.5	7.1
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1321	5530	1722	32	1169	631	148	1429	639	12	614	549
V/C Ratio(X)	0.18	0.06	0.02	0.49	0.28	0.28	0.47	0.11	0.00	0.43	0.11	0.29
Avail Cap(c_a), veh/h	1321	5530	1722	90	1169	631	176	1429	639	90	614	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.2	0.0	0.0	48.7	24.2	24.2	46.8	19.1	18.3	49.5	22.6	24.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.2	0.6	1.1	0.9	0.2	0.0	8.8	0.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	0.5	3.3	3.7	1.0	1.4	0.1	0.2	1.3	3.3
LnGrp Delay(d),s/veh	4.2	0.0	0.0	52.9	24.8	25.3	47.7	19.3	18.3	58.3	23.0	25.4
LnGrp LOS	A	A	A	D	C	C	D	B	B	E	C	C
Approach Vol, veh/h		603			516			234			228	
Approach Delay, s/veh		1.7			25.8			27.7			25.4	
Approach LOS		A			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	113.7	9.6	40.2	80.1	39.6	4.8	45.0
Change Period (Y+Rc), s	* 4.2	5.8	5.4	* 6.2	5.8	* 5.8	* 4.2	5.4
Max Green Setting (Gmax), s	* 5	35.6	5.0	* 34	6.8	* 34	* 5	34.8
Max Q Clear Time (g_c+I1), s	2.9	2.0	3.9	9.1	6.0	8.9	2.3	4.8
Green Ext Time (p_c), s	0.0	1.6	0.0	0.7	0.1	1.8	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.8
HCM 2010 LOS	B

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	385	33	184	134	0	0	0	0	369	3	182
Future Volume (veh/h)	0	385	33	184	134	0	0	0	0	369	3	182
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	438	28	209	152	0				419	3	134
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1753	784	236	2359	0				473	3	425
Arrive On Green	0.00	0.49	0.49	0.22	1.00	0.00				0.26	0.26	0.26
Sat Flow, veh/h	0	3705	1615	1810	3705	0				1797	13	1615
Grp Volume(v), veh/h	0	438	28	209	152	0				422	0	134
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1810	1805	0				1810	0	1615
Q Serve(g_s), s	0.0	8.5	1.1	13.4	0.0	0.0				26.9	0.0	8.0
Cycle Q Clear(g_c), s	0.0	8.5	1.1	13.4	0.0	0.0				26.9	0.0	8.0
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	1753	784	236	2359	0				477	0	425
V/C Ratio(X)	0.00	0.25	0.04	0.89	0.06	0.00				0.89	0.00	0.32
Avail Cap(c_a), veh/h	0	1753	784	430	2359	0				724	0	646
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.99	0.99	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.1	16.2	46.1	0.0	0.0				42.5	0.0	35.5
Incr Delay (d2), s/veh	0.0	0.3	0.1	4.4	0.1	0.0				8.7	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.3	0.5	7.0	0.0	0.0				14.6	0.0	3.6
LnGrp Delay(d),s/veh	0.0	18.4	16.2	50.4	0.1	0.0				51.1	0.0	35.9
LnGrp LOS		B	B	D	A					D		D
Approach Vol, veh/h		466			361						556	
Approach Delay, s/veh		18.3			29.2						47.5	
Approach LOS		B			C						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	20.1	63.3		36.6		83.4		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	28.5	29.0		48.0		62.0		
Max Q Clear Time (g_c+I1), s	15.4	10.5		28.9		2.0		
Green Ext Time (p_c), s	0.2	2.2		2.7		2.4		

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
2: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	525	0	0	310	506	8	0	189	0	0	0
Future Volume (veh/h)	228	525	0	0	310	506	8	0	189	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	271	625	0	0	369	591	10	0	57			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	295	2677	0	0	1983	876	317	0	283			
Arrive On Green	0.33	1.00	0.00	0.00	0.55	0.55	0.17	0.00	0.17			
Sat Flow, veh/h	1810	3705	0	0	3705	1595	1810	0	1615			
Grp Volume(v), veh/h	271	625	0	0	369	591	10	0	57			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1595	1810	0	1615			
Q Serve(g_s), s	17.3	0.0	0.0	0.0	6.2	31.8	0.6	0.0	3.6			
Cycle Q Clear(g_c), s	17.3	0.0	0.0	0.0	6.2	31.8	0.6	0.0	3.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	295	2677	0	0	1983	876	317	0	283			
V/C Ratio(X)	0.92	0.23	0.00	0.00	0.19	0.67	0.03	0.00	0.20			
Avail Cap(c_a), veh/h	490	2677	0	0	1983	876	317	0	283			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.97	0.97	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.6	0.0	0.0	0.0	13.6	19.4	41.1	0.0	42.3			
Incr Delay (d2), s/veh	9.4	0.2	0.0	0.0	0.2	4.1	0.2	0.0	1.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	9.3	0.1	0.0	0.0	3.1	15.0	0.3	0.0	1.7			
LnGrp Delay(d),s/veh	49.0	0.2	0.0	0.0	13.8	23.5	41.3	0.0	43.9			
LnGrp LOS	D	A			B	C	D		D			
Approach Vol, veh/h		896			960			67				
Approach Delay, s/veh		15.0			19.8			43.5				
Approach LOS		B			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		94.0			23.1	70.9		26.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		89.0			32.5	53.0		21.0
Max Q Clear Time (g_c+I1), s		2.0			19.3	33.8		5.6
Green Ext Time (p_c), s		5.8			0.3	5.2		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	18.4
HCM 2010 LOS	B

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	20	694	731	6	14	85
Future Vol, veh/h	20	694	731	6	14	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	789	831	7	16	97

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	831	0	-	0	1271	415
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	440	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	810	-	-	-	*299	592
Stage 1	-	-	-	-	*393	-
Stage 2	-	-	-	-	*756	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	810	-	-	-	*284	592
Mov Cap-2 Maneuver	-	-	-	-	*284	-
Stage 1	-	-	-	-	*393	-
Stage 2	-	-	-	-	*717	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	14
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	810	-	-	-	513
HCM Lane V/C Ratio	0.028	-	-	-	0.219
HCM Control Delay (s)	9.6	0.2	-	-	14
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)

4: Patterson Avenue & Harley Knox Boulevard

1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	651	24	2	665	3	33	4	6	6	2	13
Future Volume (veh/h)	3	651	24	2	665	3	33	4	6	6	2	13
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	766	28	2	782	3	39	5	2	7	2	8
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	1472	659	5	1463	655	588	73	26	555	150	665
Arrive On Green	0.01	0.41	0.41	0.00	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1810	3610	1615	1810	3610	1615	1237	177	64	1165	364	1615
Grp Volume(v), veh/h	4	766	28	2	782	3	46	0	0	9	0	8
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1805	1615	1479	0	0	1529	0	1615
Q Serve(g_s), s	0.2	13.6	0.9	0.1	14.0	0.1	1.1	0.0	0.0	0.0	0.0	0.2
Cycle Q Clear(g_c), s	0.2	13.6	0.9	0.1	14.0	0.1	1.5	0.0	0.0	0.2	0.0	0.2
Prop In Lane	1.00		1.00	1.00		1.00	0.85		0.04	0.78		1.00
Lane Grp Cap(c), veh/h	10	1472	659	5	1463	655	687	0	0	705	0	665
V/C Ratio(X)	0.42	0.52	0.04	0.41	0.53	0.00	0.07	0.00	0.00	0.01	0.00	0.01
Avail Cap(c_a), veh/h	106	1472	659	106	1463	655	687	0	0	705	0	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.1	18.9	15.2	42.3	19.2	15.1	15.1	0.0	0.0	14.8	0.0	14.8
Incr Delay (d2), s/veh	10.4	1.3	0.1	18.9	1.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	7.0	0.4	0.1	7.2	0.0	0.7	0.0	0.0	0.1	0.0	0.1
LnGrp Delay(d),s/veh	52.5	20.2	15.3	61.2	20.6	15.1	15.3	0.0	0.0	14.8	0.0	14.8
LnGrp LOS	D	C	B	E	C	B	B			B		B
Approach Vol, veh/h		798			787			46			17	
Approach Delay, s/veh		20.2			20.7			15.3			14.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.4	40.5		40.1	4.7	40.2		40.1
Change Period (Y+Rc), s	* 4.2	5.8		5.1	* 4.2	5.8		5.1
Max Green Setting (Gmax), s	* 5	29.9		35.0	* 5	29.9		35.0
Max Q Clear Time (g_c+I1), s	2.1	15.6		2.2	2.2	16.0		3.5
Green Ext Time (p_c), s	0.0	6.0		0.2	0.0	5.9		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	20.2
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	646	2	0	654	0	3
Future Vol, veh/h	646	2	0	654	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	743	2	0	752	0	3

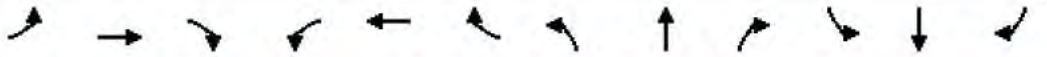
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	745	0	1045	372
Stage 1	-	-	-	-	744	-
Stage 2	-	-	-	-	301	-
Critical Hdwy	-	-	5.3	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	-	-	3.1	-	3.8	3.9
Pot Cap-1 Maneuver	-	-	867	-	*299	*793
Stage 1	-	-	-	-	*683	-
Stage 2	-	-	-	-	*795	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	867	-	*299	*793
Mov Cap-2 Maneuver	-	-	-	-	*299	-
Stage 1	-	-	-	-	*683	-
Stage 2	-	-	-	-	*795	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	793	-	-	867	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	9.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	80	250	94	24	33	91	276	51	64	222	56
Future Volume (veh/h)	17	80	250	94	24	33	91	276	51	64	222	56
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	105	159	124	32	10	120	363	33	84	292	42
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	44	349	581	154	464	378	319	1393	126	108	873	124
Arrive On Green	0.02	0.18	0.18	0.09	0.24	0.24	0.18	0.42	0.42	0.06	0.28	0.28
Sat Flow, veh/h	1810	1900	1611	1810	1900	1546	1810	3345	302	1810	3173	452
Grp Volume(v), veh/h	22	105	159	124	32	10	120	195	201	84	165	169
Grp Sat Flow(s),veh/h/ln	1810	1900	1611	1810	1900	1546	1810	1805	1842	1810	1805	1819
Q Serve(g_s), s	1.0	3.8	1.2	5.4	1.0	0.4	4.7	5.7	5.7	3.7	5.8	5.9
Cycle Q Clear(g_c), s	1.0	3.8	1.2	5.4	1.0	0.4	4.7	5.7	5.7	3.7	5.8	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		0.25
Lane Grp Cap(c), veh/h	44	349	581	154	464	378	319	752	767	108	496	500
V/C Ratio(X)	0.50	0.30	0.27	0.81	0.07	0.03	0.38	0.26	0.26	0.78	0.33	0.34
Avail Cap(c_a), veh/h	120	570	768	154	606	493	319	752	767	143	496	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	28.2	6.4	36.0	23.2	23.0	29.1	15.3	15.3	37.1	23.1	23.2
Incr Delay (d2), s/veh	3.3	0.2	0.1	24.5	0.0	0.0	0.3	0.8	0.8	12.5	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.0	1.3	3.7	0.5	0.2	2.4	3.0	3.1	2.2	3.1	3.2
LnGrp Delay(d),s/veh	41.9	28.4	6.4	60.4	23.3	23.0	29.3	16.1	16.1	49.6	24.9	25.0
LnGrp LOS	D	C	A	E	C	C	C	B	B	D	C	C
Approach Vol, veh/h		286			166			516			418	
Approach Delay, s/veh		17.2			51.0			19.2			29.9	
Approach LOS		B			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	39.5	11.0	20.5	20.3	28.2	6.1	25.4
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	6.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 6.3	22.5	* 6.8	24.0	6.8	* 22	* 5.3	25.5
Max Q Clear Time (g_c+I1), s	5.7	7.7	7.4	5.8	6.7	7.9	3.0	3.0
Green Ext Time (p_c), s	0.0	1.2	0.0	0.6	0.0	0.8	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	25.8
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	33	13	429	35	15	502
Future Vol, veh/h	33	13	429	35	15	502
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	210	0	-	-	120	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	43	17	557	45	19	652

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1271	580	0	0	603	0
Stage 1	580	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	143	518	-	-	984	-
Stage 1	564	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	140	518	-	-	984	-
Mov Cap-2 Maneuver	307	-	-	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	507	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.8	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	307	518	984	-
HCM Lane V/C Ratio	-	-	0.14	0.033	0.02	-
HCM Control Delay (s)	-	-	18.6	12.2	8.7	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	0.1	-

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)
10: Indian Street & Harley Knox Boulevard — 6/24/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	316	312	50	14	244	24	39	171	17	23	159	373
Future Volume (veh/h)	316	312	50	14	244	24	39	171	17	23	159	373
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	385	380	52	17	298	18	48	209	11	28	194	372
Adj No. of Lanes	1	3	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1004	4452	1386	33	1538	92	119	1210	541	47	558	499
Arrive On Green	0.55	0.86	0.86	0.02	0.31	0.31	0.03	0.34	0.34	0.03	0.31	0.31
Sat Flow, veh/h	1810	5187	1615	1810	5006	299	3510	3610	1614	1810	1805	1615
Grp Volume(v), veh/h	385	380	52	17	205	111	48	209	11	28	194	372
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1847	1755	1805	1614	1810	1805	1615
Q Serve(g_s), s	13.2	1.2	1.5	1.0	4.8	4.9	1.5	4.5	0.5	1.7	9.2	22.7
Cycle Q Clear(g_c), s	13.2	1.2	1.5	1.0	4.8	4.9	1.5	4.5	0.5	1.7	9.2	22.7
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1004	4452	1386	33	1063	568	119	1210	541	47	558	499
V/C Ratio(X)	0.38	0.09	0.04	0.51	0.19	0.20	0.40	0.17	0.02	0.59	0.35	0.75
Avail Cap(c_a), veh/h	1004	4452	1386	86	1063	568	160	1210	541	92	558	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.8	1.2	10.1	53.5	28.1	28.1	52.0	25.8	24.5	53.0	29.4	34.1
Incr Delay (d2), s/veh	0.1	0.0	0.1	4.4	0.4	0.8	0.8	0.3	0.1	4.3	1.7	9.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.6	0.7	0.6	2.3	2.6	0.7	2.3	0.2	0.9	4.8	11.5
LnGrp Delay(d),s/veh	13.9	1.2	10.2	57.9	28.5	28.9	52.9	26.1	24.6	57.3	31.1	43.8
LnGrp LOS	B	A	B	E	C	C	D	C	C	E	C	D
Approach Vol, veh/h		817			333			268			594	
Approach Delay, s/veh		7.8			30.1			30.8			40.3	
Approach LOS		A			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	100.4	9.1	40.2	67.0	39.6	7.1	42.3
Change Period (Y+Rc), s	* 4.2	5.8	5.4	* 6.2	5.8	* 5.8	* 4.2	5.4
Max Green Setting (Gmax), s	* 5.2	45.4	5.0	* 34	16.8	* 34	* 5.6	34.2
Max Q Clear Time (g_c+I1), s	3.0	3.5	3.5	24.7	15.2	6.9	3.7	6.5
Green Ext Time (p_c), s	0.0	2.1	0.0	1.5	0.2	1.1	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	24.2
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 3.3:

EXISTING (2015) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Queues — Indian Street Commerce Center TIA (JN09912)

1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 1/6/2016

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	612	11	186	226	395	154
v/c Ratio	0.36	0.01	0.74	0.10	0.81	0.28
Control Delay	23.2	0.0	69.5	9.9	53.9	5.7
Queue Delay	0.0	0.0	0.2	0.0	0.0	0.0
Total Delay	23.3	0.0	69.7	9.9	53.9	5.7
Queue Length 50th (ft)	154	0	154	30	287	0
Queue Length 95th (ft)	255	0	229	66	361	45
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	1701	792	368	2338	679	701
Starvation Cap Reductn	0	0	15	0	0	0
Spillback Cap Reductn	24	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.01	0.53	0.10	0.58	0.22

Intersection Summary

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

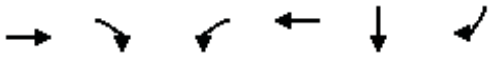
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	362	689	416	579	19	121
v/c Ratio	0.84	0.25	0.23	0.54	0.07	0.36
Control Delay	46.8	2.0	18.0	5.7	45.6	11.4
Queue Delay	0.3	0.3	0.0	0.0	0.0	0.0
Total Delay	47.0	2.3	18.0	5.7	45.6	11.4
Queue Length 50th (ft)	88	10	91	32	13	0
Queue Length 95th (ft)	139	51	137	112	35	49
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	594	2797	1829	1063	259	332
Starvation Cap Reductn	29	1377	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.49	0.23	0.54	0.07	0.36

Intersection Summary

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Queues — Indian Street Commerce Center TIA (JN09912)

1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 6/28/2016



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	438	38	209	152	422	207
v/c Ratio	0.28	0.05	0.76	0.07	0.81	0.34
Control Delay	24.6	3.5	70.1	10.0	51.9	5.1
Queue Delay	0.0	0.0	0.2	0.0	0.0	0.0
Total Delay	24.6	3.5	70.3	10.0	51.9	5.1
Queue Length 50th (ft)	112	0	175	21	303	0
Queue Length 95th (ft)	185	13	248	42	366	46
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	1587	743	428	2273	724	770
Starvation Cap Reductn	0	0	25	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.05	0.52	0.07	0.58	0.27

Intersection Summary

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Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	271	625	369	602	10	225
v/c Ratio	0.80	0.23	0.19	0.54	0.03	0.48
Control Delay	49.4	2.1	16.3	3.4	41.5	9.2
Queue Delay	0.2	0.3	0.0	0.0	0.0	0.0
Total Delay	49.5	2.4	16.3	3.4	41.5	9.2
Queue Length 50th (ft)	65	8	76	0	7	0
Queue Length 95th (ft)	99	40	111	38	21	52
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	488	2677	1896	1123	315	468
Starvation Cap Reductn	16	1361	0	0	0	0
Spillback Cap Reductn	0	0	21	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.47	0.20	0.54	0.03	0.48

Intersection Summary

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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APPENDIX 3.4:

EXISTING (2015) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

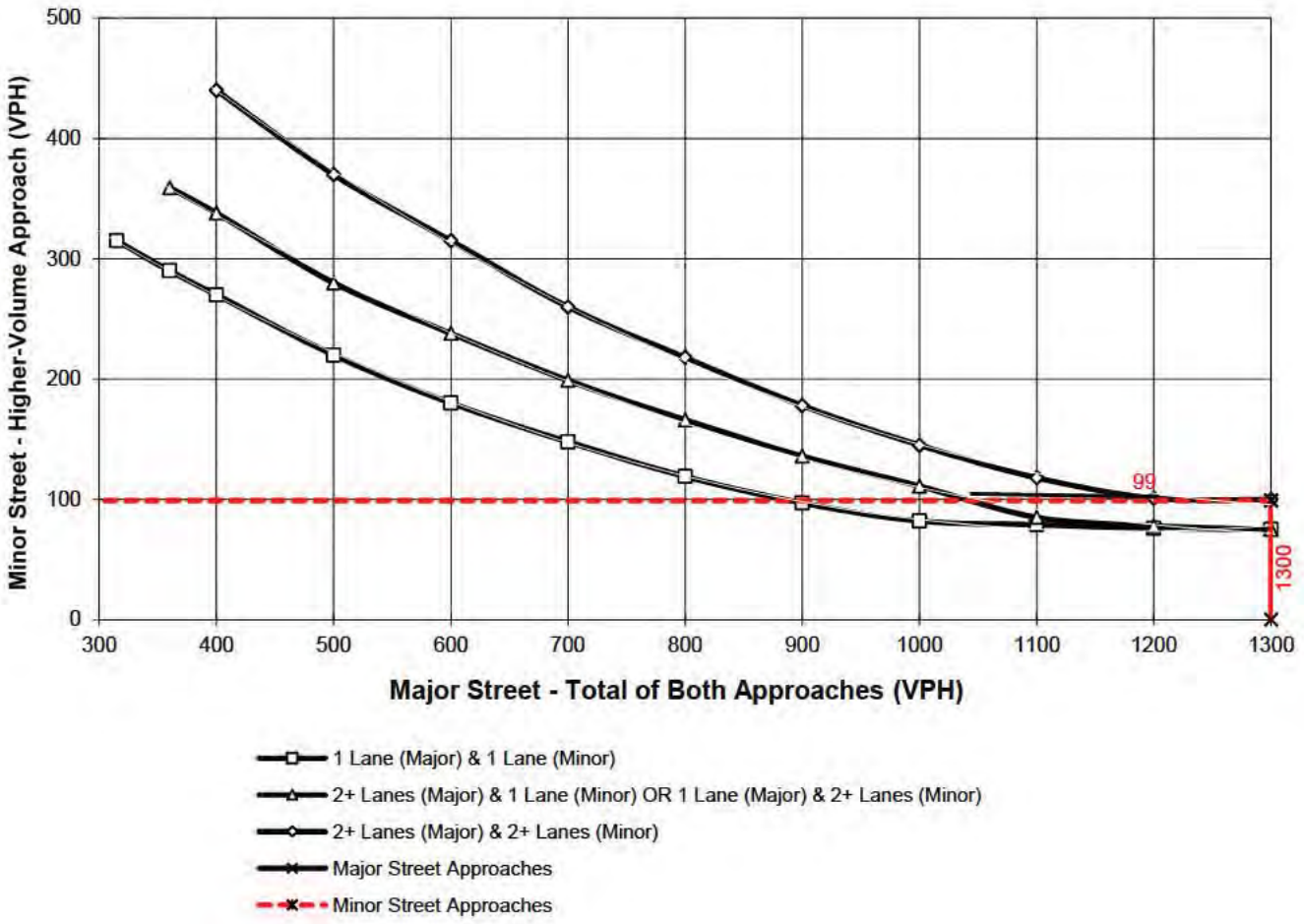
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2015) Conditions - Weekday PM Peak Hour**

Major Street Name = **Harley Knox Boulevard** Total of Both Approaches (VPH) = **1451**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Western Way** High Volume Approach (VPH) = **99**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

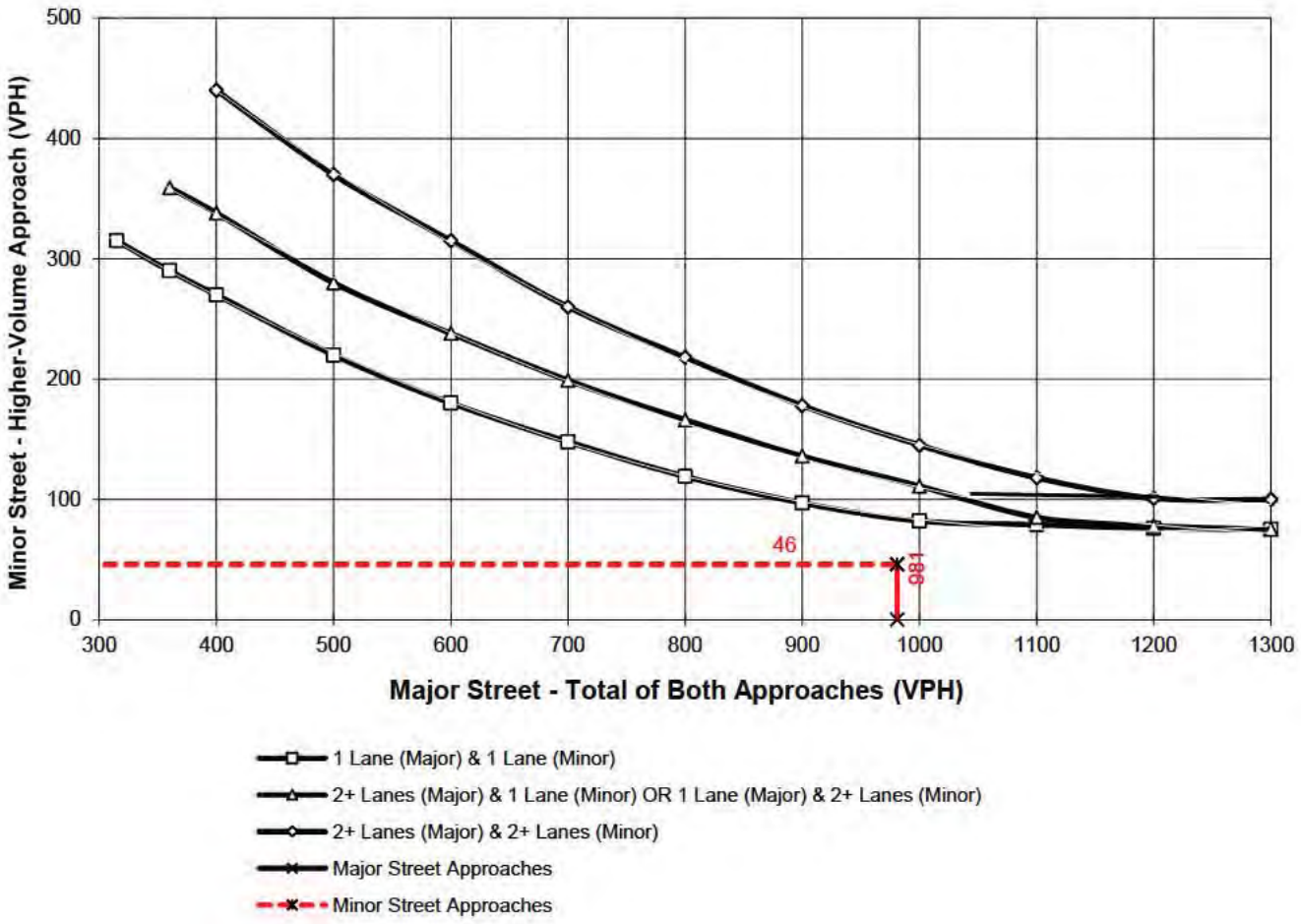
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2015) Conditions - Weekday PM Peak Hour**

Major Street Name = **Indian Street** — Total of Both Approaches (VPH) = **981**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Grove View Road** — High Volume Approach (VPH) = **46**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 4.1:

CUMULATIVE DEVELOPMENT PROJECTS

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Charlene Hwang So

From: Julia Descoteaux <juliad@moval.org>
Sent: Monday, June 08, 2015 2:59 PM
To: Charlene Hwang So
Cc: CMS Administrator; 'David Ornelas (dornelas@tbplanning.com)'
Subject: RE: 09301: Cumulative Project Review

Hi Charlene,

Is this list intended to include both entitled (but not built) and existing/built uses?

Please include the following on your list:

Tract 31618 Moreno Beach and Bay Avenue 55 SFD
PA15-0004 Perris south of JFK Retail Restaurant/Fast Food 2973sqft
PA14-0042 Edgemont/Eucalyptus MFDR 112 units

MV-8 Refers to a project never approved.
MC-18 is a Car Wash and Retail Convenience store.
PA13-0009 a Fueling Station on Alessandro at Indian (NEC)

Thank you,
Julia

Julia Descoteaux
Associate Planner
Community & Economic Development
City of Moreno Valley
p: 951.413.3209 | e: juliad@moval.org w: www.moval.org
14177 Frederick St., Moreno Valley, CA 92553

From: Charlene Hwang So [mailto:cso@urbanxroads.com]
Sent: Wednesday, June 03, 2015 4:09 PM
To: Julia Descoteaux
Cc: CMS Administrator
Subject: 09301: Cumulative Project Review
Importance: High

Hi Julia,

Could you please review the attached map and list of cumulative developments in the City of Moreno Valley, and provide any updates that you may have? We are trying to get a list of cumulative projects for inclusion in the traffic study for the Moreno Valley Logistics Center (Prologis) project. Please feel free to contact me with any questions or if you require any additional information. We have already reached out the adjacent jurisdictions as well: City of

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Riverside, City of Perris, and County of Riverside. All but the City of Perris have already responded. Thank you in advance!

Regards,

CHARLENE SO, P.E.
Senior Transportation Engineer

URBAN CROSSROADS

41 Corporate Park, Suite 300
Irvine, CA 92606
(949) 336-5982 Direct
(949) 861-0177 Cell
(949) 660-1994 Main
urbanxroads.com

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Charlene Hwang So

From: Julia Descoteaux <juliad@moval.org>
Sent: Tuesday, June 09, 2015 4:31 PM
To: David Ornelas; Charlene Hwang So
Cc: CMS Administrator
Subject: RE: 09301: Cumulative Project Review
Attachments: Cum deveop list.pdf

Attached please find the list with redlines. Please contact me with any questions.

Regards,
Julia

Julia Descoteaux
Associate Planner
Community & Economic Development
City of Moreno Valley
p: 951.413.3209 | e: juliad@moval.org w: www.moval.org
14177 Frederick St., Moreno Valley, CA 92553

From: David Ornelas [mailto:dornelas@tbplanning.com]
Sent: Monday, June 08, 2015 3:30 PM
To: Julia Descoteaux; Charlene Hwang So
Cc: CMS Administrator
Subject: RE: 09301: Cumulative Project Review

Thank you for your help, Julia. The only projects that need to be removed from the list are projects that are completely built and operational. Projects that are under construction can remain on the list.

Regards,

David Ornelas
Project Manager

T&B PLANNING, INC.
Phone: (619) 501-6041
dornelas@tbplanning.com

From: Julia Descoteaux [mailto:juliad@moval.org]
Sent: Monday, June 08, 2015 3:21 PM
To: David Ornelas; Charlene Hwang So
Cc: CMS Administrator
Subject: RE: 09301: Cumulative Project Review

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Hi David,

The list has projects that are built. I will need to go back and review the list to make changes.

Julia

Julia Descoteaux
Associate Planner
Community & Economic Development
City of Moreno Valley
p: 951.413.3209 | e: juliad@moval.org w: www.moval.org
14177 Frederick St., Moreno Valley, CA 92553

From: David Ornelas [mailto:dornelas@tbplanning.com]
Sent: Monday, June 08, 2015 3:19 PM
To: Charlene Hwang So; Julia Descoteaux
Cc: CMS Administrator
Subject: RE: 09301: Cumulative Project Review

Hi, Julia:

Just to close the loop, with the addition of the projects listed below, is the cumulative project list approved for use in the CEQA analysis for Moreno Valley Logistics Center? The purpose of the list is to include proposed and approved (unbuilt) projects.

Regards,

David Ornelas
Project Manager

T&B PLANNING, INC.
Phone: (619) 501-6041
dornelas@tbplanning.com

From: Charlene Hwang So [mailto:cso@urbanxroads.com]
Sent: Monday, June 08, 2015 3:08 PM
To: Julia Descoteaux
Cc: CMS Administrator; David Ornelas
Subject: RE: 09301: Cumulative Project Review

Thanks Julia!

Regards,

CHARLENE SO, P.E.
Senior Transportation Engineer

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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urbanxroads.com

From: Julia Descoteaux [mailto:juliad@moval.org]
Sent: Monday, June 08, 2015 2:59 PM
To: Charlene Hwang So
Cc: CMS Administrator; 'David Ornelas (dornelas@tbplanning.com)'
Subject: RE: 09301: Cumulative Project Review

Hi Charlene,

Is this list intended to include both entitled (but not built) and existing/built uses?

Please include the following on your list:

Tract 31618 Moreno Beach and Bay Avenue 55 SFD
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MV-8 Refers to a project never approved.
MC-18 is a Car Wash and Retail Convenience store.
PA13-0009 a Fueling Station on Alessandro at Indian (NEC)

Thank you,
Julia

Julia Descoteaux
Associate Planner
Community & Economic Development
City of Moreno Valley
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Sent: Wednesday, June 03, 2015 4:09 PM
To: Julia Descoteaux
Cc: CMS Administrator
Subject: 09301: Cumulative Project Review
Importance: High

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Hi Julia,

Could you please review the attached map and list of cumulative developments in the City of Moreno Valley, and provide any updates that you may have? We are trying to get a list of cumulative projects for inclusion in the traffic study for the Moreno Valley Logistics Center (Prologis) project. Please feel free to contact me with any questions or if you require any additional information. We have already reached out the adjacent jurisdictions as well: City of Riverside, City of Perris, and County of Riverside. All but the City of Perris have already responded. Thank you in advance!

Regards,

CHARLENE SO, P.E.
Senior Transportation Engineer

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
	CITY OF MORENO VALLEY			
MV-1	PA 06-0152 & PA 06-0153 (First Park Nandina I & II)	High-Cube Warehouse	~~1182.918~~	TSF
MV-2	Integra Pacific Industrial Facility	High-Cube Warehouse	880.000	TSF
~~MV-3~~	~~PA 08-0072 (Overton Moore Properties)~~	~~High-Cube Warehouse~~	~~520.000~~	~~TSF~~
~~MV-4~~	~~Harbor Freight Expansion~~	~~High-Cube Warehouse~~	~~1279.910~~	~~TSF~~
MV-5	PA 04-0063 (Centerpointe Buildings 8 and 9)	General Light Industrial	361.384	TSF
MV-6	PA 07-0035; PA 07-0039 (Moreno Valley Industrial Park)	General Light Industrial	204.657	TSF
		High-Cube Warehouse	409.920	TSF
~~MV-7~~	~~PA 07-0079 (Indian Business Park)~~	~~High-Cube Warehouse~~	~~1560.046~~	~~TSF~~
~~MV-8~~	~~PA 08-0013-0052 (Komar Cactus Plaza)[3]~~	~~Hotel~~	~~110~~	~~RMS~~
		~~Fast Food w/Drive Thru~~	~~8.000~~	~~TSF~~
		~~Commercial~~	~~42.400~~	~~TSF~~
MV-9	First Inland Logistics Center	High-Cube Warehouse	400.130	TSF
MV-10	TM 33607	Condo/Townhomes	52	DU
MV-11	PA 08-0093 (Centerpointe Business Park II)	General Light Industrial	99.988	TSF
MV-12	PA 06-0021; PA 06-0022; PA 06-0048; PA 06-0049 (Komar Investments)	Warehousing	~~2857.480~~	TSF
MV-13	PA 06-0017 (Ivan Devries)	Industrial Park	569.200	TSF
MV-14	Modular Logistics (Dorado Property)	High-Cube Warehouse	1109.378	TSF
MV-15	PA 09-0004 (Vogel)	High-Cube Warehouse	~~1615.132~~	TSF
MV-16	TM 34748	SFDR	135	DU
MV-17	First Nandina Logistics Center	High-Cube Warehouse	1450.000	TSF
~~MV-18~~	~~PA 09-0031~~	~~Gas Station~~	~~12~~	~~VFP~~
MV-19	First Park Nandina III	High-Cube Warehouse	691.960	TSF
	Moreno Valley Commerce Park	High-Cube Warehouse	354.321	TSF
MV-20	March Business Center	General Light Industrial	16.732	TSF
		Warehousing	87.429	TSF
		High-Cube Warehouse	1380.246	TSF
MV-21	TM 33810	SFDR	16	DU
MV-22	TM 34151	SFDR	37	DU
MV-23	373K Industrial Facility	High-Cube Warehouse	373.030	TSF
MV-24	TM 32716	SFDR	57	DU
~~MV-25~~	~~TM 32917~~	~~Condo/Townhomes~~	~~227~~	~~DU~~
MV-26	TM 33417	Condo/Townhomes	60	DU
MV-27	TM 34988	Condo/Townhomes	271	DU
MV-28	TM 34216	Condo/Townhomes	39	DU
MV-29	TM 34681	Condo/Townhomes	49	DU
MV-30	PA 08-0079-0081 (Winco Foods)	Discount Supermarket	95.440	TSF
		Specialty Retail	14.800	TSF
MV-31	Moreno Beach Marketplace (Lowe's)	Commercial Retail	175.000	TSF
	Auto Mall Specific Plan (Planning Area C)	Commercial Retail	304.500	TSF
	Westridge	High-Cube Warehouse	937.260	TSF
	ProLogis	High-Cube Warehouse	1916.190	TSF
		Warehousing	328.448	TSF
	World Logistics Center	High-Cube Warehouse	41400.000	TSF
		Warehousing	200.000	TSF
		Gas Station w/ Market	12	VFP
		Existing SFDR	7	DU

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-32	Quail Ranch Specific Plan	Private School (K-12)	300	STU
		Golf Course	18	Holes
		Hotel	500	RMS
		Specialty Retail	66.667	TSF
		General office	66.667	TSF
		Assisted Living	500	Beds
		Senior Living (Detached)	200	DU
		SFDR	600	DU
MV-33	a TR 32460 (Sussex Capital)	SFDR	57	DU
	b TR 32459 (Sussex Capital)	SFDR	11	DU
	c TR 30411 (Pacific Communities)	SFDR	24	DU
	d TR 33962 (Pacific Scene Homes)	SFDR	31	DU
	e TR 30998 (Pacific Communities)	SFDR	47	DU
MV-34	a Westridge Commerce Center	High-Cube Warehouse	937.260	TSF
	b P06-158 (Gascon)	Commercial Retail	116.360	TSF
	c Auto Mall Specific Plan (PAC)	Commercial Retail	304.500	TSF
	d ProLogis	Warehousing	367.000	TSF
		High-Cube Warehouse	1901.000	TSF
	e TR 35823 (Stowe Passco)	SFDR	261	DU
		Apartments	216	DU
MV-35	TR 36340	SFDR	275	DU
MV-36	a TR 31771 (Sanchez)	SFDR	25	DU
	b TR 34397 (Winchester Associates)	SFDR	52	DU
	c TR 32645 (Winchester Associates)	SFDR	53	DU
MV-37	Lowe's (Moreno Beach Marketplace)	Home Improvement Store	175.000	TSF
MV-38	a Convenience Store/ Fueling Station	Gas Station w/ Market	38.750	TSF
	b Senior Assisted Living	Assisted Living Units	139	DU
	c TR 31590 (Winchester Associates)	SFDR	96	DU
	d TR 32548 (Gabel, Cook & Associates)	SFDR	107	DU
	e 20th Corp. & Granite Capitol	SFDR	92	DU
	f TR 32218 (Whitney)	SFDR	63	DU
	g Moreno Marketplace	Commercial Retail	93.780	TSF
	h Medical Plaza	Medical Offices	311.633	TSF
MV-39	a Moreno Medical Campus	Medical Offices	80.000	TSF
	b Aqua Bella Specific Plan	SFDR	2,922	DU
	c TR 34329 (Granite Capitol)	SFDR	90	DU
	d Cresta Bella	General Office	30.000	TSF
MV-40	Moreno Valley Industrial Center (Industrial Area SP)	General Light Industrial	354.810	TSF
MV-41	Centerpointe Business Park	General Light Industrial	356.000	TSF
MV-42	Moreno Valley Shopping Center	Free Standing Discount Store	189.520	TSF
		Gas Station w/ Market / Car Wash	16	VFP
MV-43	TR 31305 / Richmond American	Residential	87	DU
MV-44	TR 32505 / DR Horton	Residential	72	DU
MV-45	TR 34329 / Granite Capitol	Residential	90	DU
MV-46	TR 31814 / Moreno Valley Investors	Residential	60	DU
MV-47	TR 33771 / Creative Design Associates	Residential	12	DU
MV-48	TR 35663 / Kha	Residential	12	DU
MV-49	TR 22180 / Young Homes	Residential	140	DU
MV-50	TR 32515	Residential	161	DU
MV-51	TR 32142	Residential	81	DU
MV-52	San Michele Industrial Center (Industrial Area SP)	General Light Industrial	865.960	TSF
MV-53	Commercial Medical Plaza	Medical Offices	311.633	TSF
MV-54	Edgemont Street, South of Eucalyptus Av.	Apartments	112	DU
MV-55	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	SFDR	9	DU
MV-56	20636 Pacific Communities	SFDR	67	DU
MV-57	31297 Randy McFarland	SFDR	7	DU
MV-58	31394 Pigeon Pass, Ltd.	SFDR	78	DU
MV-59	31442 SKG Pacific Enterprises Inc.	SFDR	63	DU
MV-60	31517 Professors Prop Six/Winchester Assoc.	SFDR	83	DU

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-61	31621 Peter Sanchez	SFDR	25	DU
MV-62	32005 Red Hill Village, LLC	SFDR	214	DU
MV-63	32126 Salvador Torres	SFDR	35	DU
MV-64	32194 Arman Pezeshkifar	SFDR	32	DU
MV-65	32408 Sanstone Inc.	SFDR	80	DU
MV-66	32844 Winchester Associates	SFDR	17	DU
MV-67	32978 Focus Estates	SFDR	19	DU
MV-68	33024 Adam Wislar	SFDR	8	DU
MV-69	33275 Jose Guzman	SFDR	4	DU
MV-70	33388 SCH Development, LLC	SFDR	16	DU
MV-71	33436 Winchester Associates	SFDR	105	DU
~~MV-72~~	~~33020 Kincaid Development, Inc.~~	~~SFDR~~	~~25~~	~~DU~~
MV-73	33963 Rance Garrett	SFDR	31	DU
MV-74	34043 RM3 Building and Development	SFDR	12	DU
MV-75	31621 Beazer Homes	SFDR	274	DU
MV-76	30268 Pacific Communities	SFDR	83	DU
MV-77	31414 GRF - Majestic Hills	SFDR	31	DU
MV-78	31494 Winchester Associates	SFDR	12	DU
MV-79	32715 GFR - Trinity	SFDR	30	DU
MV-80	33256 Granite Homes	SFDR	79	DU
MV-81	32711 Isaac Genah	SFDR	9	DU
MV-82	35530 Moreno Gilman 650, LLC-Quail Ranch	SFDR elimination	1,105	DU
MV-83	35534 Leedco Engineers	SFDR	12	DU
MV-84	36436 CV Communities	SFDR	159	DU
MV-85	36401 Continental East Fund III, LLC	SFDR	92	DU
MV-86	32215 Winchester Associates "Scottish Village"	MFDR	194	DU
MV-87	32756 Jimmy Lee	MFDR	24	DU
MV-88	35369 Tason Myers Property	MFDR	12	DU
MV-89	35414 Lincoln Property Co. Southwest	MFDR	266 ~~240~~	DU
MV-90	35769 Michael Chen	MFDR	16	DU
~~MV-91~~	~~PA08-0013 Palm Desert Development "Rancho Dorado North"~~	~~MFDR~~	~~80~~	~~DU~~
MV-92	PA09-0006 Jim Nydam	MFDR	15	DU
MV-93	35861 Frederick Homes	MFDR	24	DU
MV-94	36038 Alessandro Village Plaza, LLC	MFDR	96	DU
MV-95	35304 Jimmy Lee	MFDR	12	DU
MV-96	Alessandro & Lasselle	Shopping Center	140.000	TSF
~~MV-97~~	~~Burger King - Fast Food - 24800 Sunnymead~~	~~Fast Food w/Drive Thru~~	~~--~~	~~TSF~~
MV-98	Nightclub	Retail	11.000	TSF
	~~Aerosports Trampoline Park~~	~~Recreation Community Center~~	~~34.500~~	~~TSF~~
MV-99	Food 4 Less - Fueling Station	Gas Station with Convenience Market	16	VFP
~~MV-100~~	~~Lakeshore Village Marketplace~~	~~Shopping Center~~	~~140.000~~	~~TSF~~
MV-101	El Paso (food court)	Fast Food no Drive Thru	--	TSF
~~MV-102~~	~~Potato Corner~~	~~Fast Food no Drive Thru~~	~~--~~	~~TSF~~
MV-103	O'Reilly Automotive	Automobile Parts Sale	7.500	TSF
MV-104	O'Reilly Automotive	Automobile Parts Sale	7.500	TSF
MV-105	Restaurant	Restaurant	9.000	TSF
MV-106	Rancho Belago Plaza - Retail	Retail	14.000	TSF
MV-107	~~24 Hour Fitness~~	~~Fitness Club~~	~~--~~	~~TSF~~
	~~Rivals Sports Bar & Grill~~	~~Restaurant~~	~~--~~	~~TSF~~
MV-108	Yum Yum Donut Shop	Coffee/Donut Shop w/o Drive-Thru	4.351	TSF not entitled
MV-109	Hawthorn Inn & Suites	Hotel	79	RMS
MV-110	Sleep Inn Suites	Hotel	66	RMS
~~MV-111~~	~~Fresenius Medical Care Center~~	~~Medical Offices~~	~~12.000~~	~~TSF~~
MV-112	Integrated Care Communities	Nursing Home	44.000	TSF
MV-113	Kaiser Permanente - Emergency Room Expansion	Medical Offices	--	TSF
MV-114	Moreno Valley Professional Center	General Office	84.000	TSF
MV-115	Olivewood Plaza - Office Building	General Office	23.000	TSF
MV-116	Renaissance Village of Moreno Valley	Senior Adult Housing-Attached	44 ~~440~~	DU
MV-117	Riverside County Office Building	General Office	52.000	TSF

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-118	Gateway Business Park	Residential Condo/Townhouse	34	DU
MV-119	Shaw Development	High-Cube Warehouse	367.000	TSF
MV-120	IDS/Real Estate Group - Nandina Distribution Center	High-Cube Warehouse	697.000	TSF
MV-121	Stoneridge Town Centre - Vacant Restaurant	Restaurant	5700.000	TSF
MV-122	Ironwood Residential	SFDR	144	DU
MV-123	TTM 31592 (P 13-078) Covey Ranch	SFDR	115	DU
MV-124	PA 06-0014 (Pierce Hardy Limited Partnership)	Lumbar Yard	67.000	TSF
MV-125	P06-1408	Retail	75.300	TSF
MV-126	Moval Assemblage	High-Cube Warehouse	456.337	TSF
MV-127	Bella Vista Apartments	Apartments	220	DU
MV-128	Moreno Valley Logistics Center	High-Cube Warehouse	1351.770	TSF
		General Light Industrial	385.748	TSF

Not Entitled

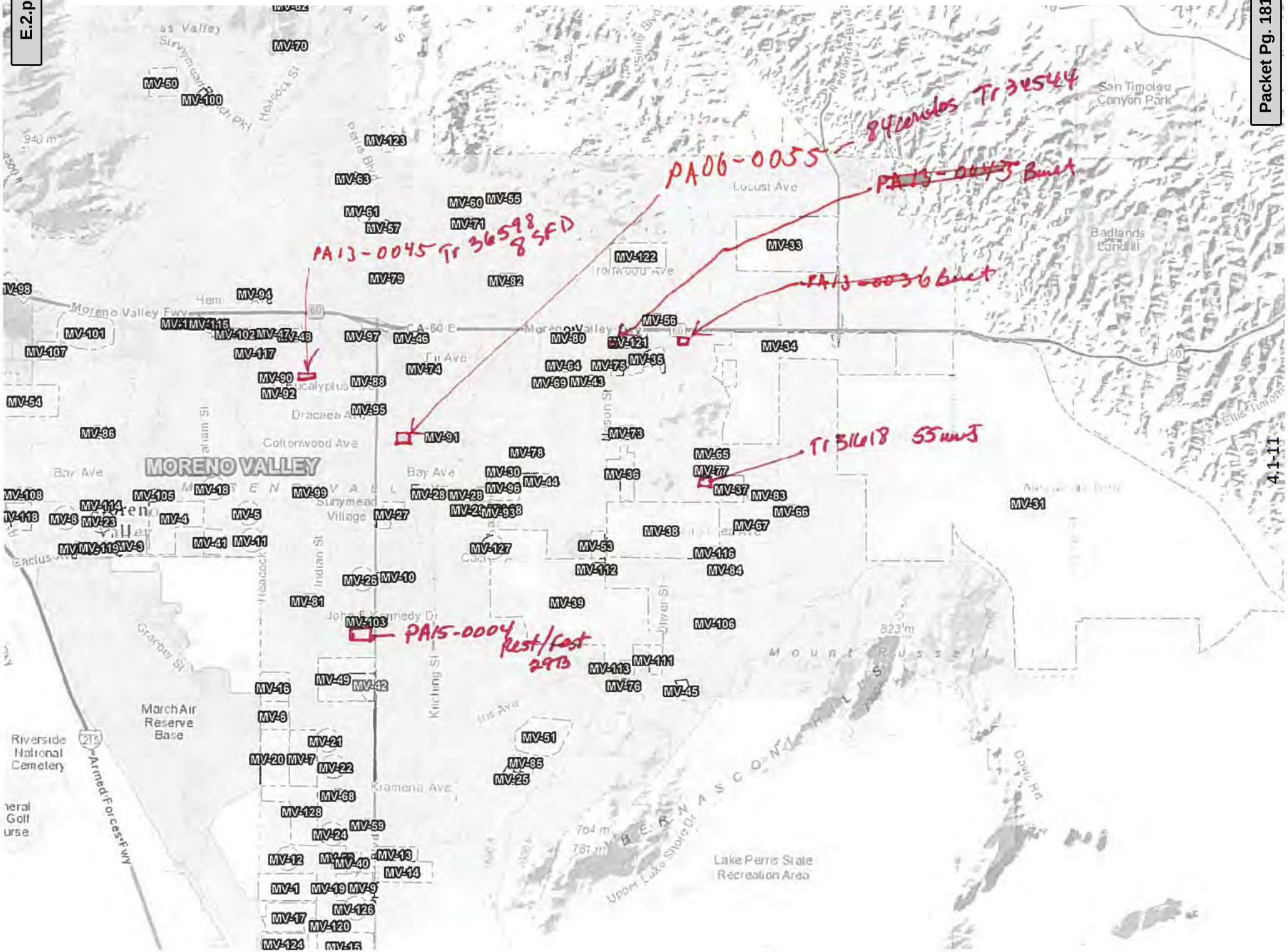
[1] SFDR = Single Family Detached Residential ; MFDR = Multi-Family Detached Residential

[2] DU = Dwelling Units; TSF = Thousand Square Feet; SP = Spaces; VFP = Vehicle Fueling Positions; RMS = Rooms; AC = Acres; EMP = Employees

[3] Source: Cactus Avenue and Commerce Center Drive Commercial Center TIA, Urban Crossroads, Inc., December 9, 2008 (Revised).

[4] Source: March Lifecare Campus Specific Plan Traffic Impact Analysis, Mountain Pacific, Inc., May 2009 (Revised).

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING


PA06-0055 - 84 condos Tr 34544
~~PA13-0043~~ Bmet
PA13-0045 Tr 36598 8 SFD
PA13-0036 Bmet
Tr 31618 55 unit
PA15-0004 Rest/Fast 29B
MORENO VALLEY
Moreno Valley Fwy
Locust Ave
Badlands Landfill
San Timoteo Canyon Park
Eucalyptus Ave
Dracaea Ave
Cottonwood Ave
Bay Ave
Sunnymead Village
John F Kennedy Dr
Kramerla Ave
Mount Russell
Lake Perris State Recreation Area
March Air Reserve Base
Riverside National Cemetery
Armed Forces Fwy
Upper Lake Shore Dr
Indian St
Heacock St
Kitching St
Oliver St
Gracber St
Cactus Ave
Iris Ave
Ellis Tomato
MV-70
MV-50
MV-100
MV-123
MV-63
MV-61
MV-57
MV-60
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MV-127
MV-53
MV-116
MV-112
MV-84
MV-26
MV-10
MV-81
MV-39
MV-103
MV-106
MV-113
MV-111
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MV-16
MV-49
MV-42
MV-6
MV-51
MV-21
MV-20
MV-7
MV-22
MV-85
MV-25
MV-68
MV-128
MV-59
MV-24
MV-12
MV-40
MV-13
MV-14
MV-1
MV-19
MV-9
MV-126
MV-17
MV-120
MV-124
MV-15

Cecilia So

From: David Ornelas [dornelas@tbplanning.com]
Sent: Thursday, May 28, 2015 10:56 AM
To: Charlene Hwang So; Tracy Zinn
Cc: Aric Evatt; CMS Administrator; Cecilia So
Subject: RE: 09301: Moreno Valley Logistics Cumulative Projects

Thanks, Charlene. I have three comments:

- The Gateway Center project (R-77) is included on the City of Riverside list, but the site is actually located in unincorporated Riverside County (but is within the City of Riverside's sphere of influence). Also, the name of the project has changed to "University Highlands" and the land use plan has changed. The updated land use abstract is below.

LAND USE	GROSS ACRES	DENSITY	TARGET DWELLING UNITS	SQUARE FOOTAGE
RESIDENTIAL				
MEDIUM DENSITY RESIDENTIAL - MDR - 2-5 DU/AC	41.0	4.5	185	
MEDIUM HIGH DENSITY RESIDENTIAL - MHDR - 5-8 DU/AC	34.9	6.3	220	
VERY HIGH DENSITY RESIDENTIAL - VHDR - 14-20 DU/AC	22.3	14.4	320	
HIGHEST DENSITY RESIDENTIAL - HHDR - 20+ DU/AC	16.5	30.9	510	
MIXED USE - MU	30.8	31.4	965	
TOTAL RESIDENTIAL	**145.4**	**15.1**	**2,200**	**30,000**
COMMERCIAL				
COMMERCIAL	1.9			20,000
PARKS AND OPEN SPACE				
PARKS	42.4			
OPEN SPACE	95.3			
TOTAL PARKS AND OPEN SPACE	**137.7**			
ROADS	27.2			
N.A.P.	7.5			
PROJECT TOTAL	**319.7**	**6.9**	**2,200**	**50,000**

- Indian Business Park (MV-7): This project has been constructed (north of and adjacent to the Moreno Valley Logistics Center site). If Michael Lloyd does not comment on this project, please confirm with him if he would like it to be included on the list as the traffic from the project should have been captured in your traffic counts.

- Prologis (MV-31): It is my understanding this project was revised at the City Council hearing to include approximately 1.5 million s.f. and 126 homes (I am quoting these numbers from a news article – the City Council meeting minutes are not on the City's website – so they should not be considered 100% accurate). Michael Lloyd should have the specific numbers, but if he does not we can always ask Prologis.

David Ornelas
Project Manager

T&B PLANNING, INC.
Phone: (619) 501-6041
dornelas@tbplanning.com

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

From: Charlene Hwang So [mailto:cso@urbanxroads.com]
Sent: Wednesday, May 27, 2015 5:56 PM
To: Tracy Zinn; David Ornelas
Cc: Aric Evatt; CMS Administrator; Cecilia So
Subject: 09301: Moreno Valley Logistics Cumulative Projects
Importance: High

Hi Tracy and David,

We have compiled a list of cumulative projects over the past few years for this region (used for First Nandina and Modular) and have that list attached along with a corresponding map. We've modified the list from what we've included in past TIAs to be sorted by jurisdiction in order to improve the efficiency in adding and removing projects over time. We have sent the list to the City of Riverside, City of Moreno Valley and City of Perris to obtain updates. I have attached each of the e-mails we sent requesting review of our current list. I have not yet received any response/updated information from any of the jurisdictions.

We did not contact the County of Riverside as I have already received an updated list of cumulative projects for the area from the County on another project we recently worked on.

Let me know if there are other jurisdictions you would like us to reach out to.

Regards,

CHARLENE SO, P.E.
Senior Transportation Engineer

URBAN CROSSROADS

41 Corporate Park, Suite 300
Irvine, CA 92606
(949) 336-5982 Direct
(949) 861-0177 Cell
(949) 660-1994 Main
urbanxroads.com

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Charlene Hwang So

From: Tsang, Kevin <KTSANG@rctlma.org>
Sent: Thursday, April 30, 2015 3:06 PM
To: Charlene Hwang So
Cc: CMS Administrator; Isidro Abreo
Subject: RE: 09347: Cumulative List

Please see below.

Thanks

From: Charlene Hwang So [mailto:cso@urbanxroads.com]
Sent: Thursday, April 23, 2015 1:43 PM
To: Tsang, Kevin
Cc: CMS Administrator; Isidro Abreo
Subject: 09347: Cumulative List
Importance: High

Hi Kevin,

Just trying to sort through the cumulative projects from the County that need to be added to our list. Could you please review and provide us with needed info or if projects should be removed? Thanks in advance!

Below is a list of projects we will be including because there was no expiration date, please let us know if there are projects that should be removed:

1. CUP03527 – 8,000 sf Warehouse: Keep
2. CUP03599 – 52,798 sf hotel: Keep
3. PP09997R2 – 12,800 sf maintenance building: You may remove, existing.
4. PP16932 – 12,000 sf manufacturing building: You may remove, existing.
5. PP24608 – 9,280 sf feed and grain sales: Keep
6. PP25252 – 399,150 sf warehouse: You may remove, existing.

The cumulative projects listed below did not have an expiration date and are missing information or we need to confirm information in order to be added:

1. CUP03632 – Auction/Sales yard (need sf/acreage): You may remove, existing.
2. PM32699 – Need land use and quantity: 2 SFDU
3. PM23532 – Gas Station/Convenience Store (need # of pumps or sf): You may remove, no activity for 5+ years.
4. PP24002 – Feed Store (need sf) : You may remove, no activity for 5+ years.
5. PP25001 – Feed and Grain Sales (need sf) : You may remove, no activity for 3+ years.
6. PP25699 – 2 drive-thru restaurants (need total sf): (2) 2,800 SF fast food w/ DT, 19,000 SF retail
7. PUP00892 – Adult Residential Care (need # of DUs or Beds and type of adult care facility) : You may remove, no activity for 5+ years.
8. PP14485R1 – Heavy Equipment Auction Yard (need sf or acreage): : You may remove, no activity for 5+ years.
9. PP18961 – National Archives Warehouse (need sf): You may remove, existing.
10. PUP00325 – need land use and quantity: You may remove, no activity for 5+ years.
11. PUP00856 – Day Care Center (need # of students): You may remove, existing.
12. TR30592 – 131 single family DUs: Keep

The following cumulative projects will not be included as they are low traffic generators (less than 50 peak hours trips):

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

1. PM35634 – 2 single family DUs: OK
2. PM36034 – 16 single family DUs: OK
3. PM36078 – 2 single family DUs: OK
4. PP24818 – Home conversion to 1,860 sf Church: OK
5. PP25019: You may remove, no activity for 4+ years.
6. PP25768: Keep, 52,450 SF manufacturing
7. TR33869 – 39 single family DUs: OK
8. CUP01634: You may remove, existing.
9. CUP03620R1: Keep, 8 VFP gas station w/ Conv. Store
10. CUP03642: You may remove, existing.
11. PM33357 – 2 single family DUs: OK
12. PM34971 – 2 single family DUs: OK
13. PM35780 – 2 single family DUs: OK
14. PP15189R1: You may remove, cell tower.

On a separate note, I wanted to follow up on your review of the scoping agreement for TTM No. 35570 (near Washington and Benton). Let me know if you have any questions.

Regards,

CHARLENE SO, P.E.
Senior Transportation Engineer

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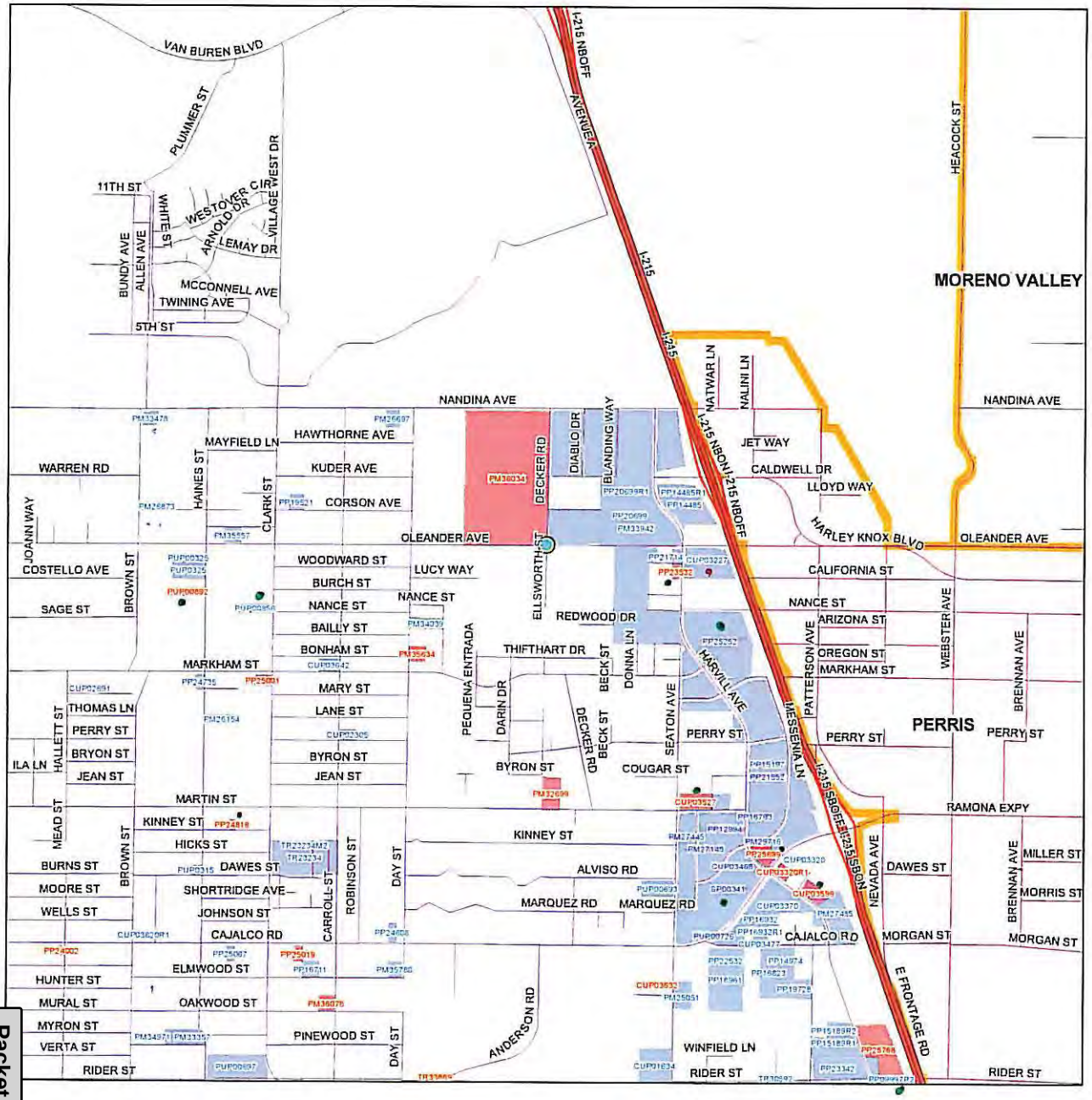

The County of Riverside assumes no warranty or legal responsibility for the information contained on this map. Data and information represented on this map is subject to updates, modifications and may not be complete or appropriate for all purposes. County GIS and other sources should be queried for the most current information. Do not copy or resell this map.

N

COUNTY LIST

Cities (Outline)
ACTIVE CASES
APPROVED CASES

0 1,000 2,000 4,000 Feet

Printed by ktsang on 6/16/10

4.1-16

Active Cases as of 4/9/2015

CASE NAME	STATUS	APPLIED DATE	APPROVAL DATE	EXPIRED DATE
CASE DESCRIPTION				
CUP03320R1	DRT	20051221	0	20000000
ALLOW LIQUOR SALES USE WITHIN EXISTING GAS STATION				
CUP03527	DRT	20060915	0	20000000
8000 SF WAREHOUSE/OFFICE/CONCRETE MIXING SILO&STOR				
CUP03599	DRT	20080625	0	20000000
TO CONSTRUCT A THREE-STORY 52,798 SQ.FT. HOTEL WI				
CUP03632	DRT	20090915	0	20000000
COMMUNITY AUCTION AND SALES YARD				
PM32699	DRT	20060223	0	20000000
SCHED H DIVISION OF 5 ACRES INTO (2) PARCELS				
PM35634	DRT	20071221	0	0
DIVIDE 1.89 ACRES INTO 2 LOTS				
PM36034	DRT	20080612	0	20000000
SCHEDULE "E" DIVISION OF 100 ACRES INTO 16 LOTS				
PM36078	DRT	20090521	0	20000000
SUBDIVIDE 2.9 ACRES INTO TWO LOTS				
PP23532	DRT	20080617	0	20000000
GAS STATION AND MINI MARKET & RETAIL STORES				
PP24002	DRT	20090225	0	20000000
PROPOSED FEED STORE				
PP24818	DRT	20101227	0	20000000
1,860 SQ FT HOUSE CONVERT TO CHURCH				
PP25001	DRT	20110818	0	20000000
FEED AND GRAIN SALES				
PP25019	APPLIED	20110921	0	0
ADD SMOKE SHOP/RECYCL COLL FAC/PROPANE TANK TO EXI				
PP25699	DRT	20141107	0	20000000
PLOT PLAN TO CONSTRUCT TWO (2) DRIVE THRU RESTAURA				
PP25768	DRT	20150226	0	0
PP TO REMOVE AN EXISTING GRAIN STORAGE BINS AND TO				
PUP00892	BOS	20070713	0	20000000
ADULT RESIDENTIAL CARE FACILITY				
TR33869	APPLIED	20051005	0	0
SUBDIVIDE 50.2 AC (3 PARCELS) INTO 39 SFR LOTS				

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Approved Cases as of 04/09/2015

CASE NAME	STATUS	APPLIED DATE	APPROVAL DATE	EXPIRED DATE
CASE DESCRIPTION				
CUP01634	APPROVED	02/01/2008	0	NA
PROPOSAL TO REPLACE RESIN PROCESSING SYSTEM				
CUP02305	APPROVED	01/28/2008	0	NA
CUP02691	EXPIRED	12/22/2000	19840904	09/04/1984
AUTOMOBILE DISMANTLER FACILITY				
CUP03227	APPROVED	04/01/1996	19960604	06/04/1998
RESINS MANUFACTURING FACILITY				
CUP03315	APPROVED	05/18/2000	20000725	NA
GAS STATN/CONV STORE/2 FAST FOOD/1 DINE IN RESTRNT				
CUP03320	APPROVED	08/15/2000	20010206	06/01/2030
CONVENIENCE STORE/FAST FOOD RESTAURANT/CAR WASH/			Existing	JTB/Cir.K/T
CUP03370	APPROVED	04/03/2002	20030701	07/01/2006
TRUCK/GASSTATION COMM CTR SEVERAL BLDGS @ 32,000SF				
CUP03425	APPROVED	02/19/2004	20071114	11/14/2009
(4)CONCRETE TILT-UP BUILDINGS(TRUCKING OPERATIONS)				
CUP03468	APPROVED	09/15/2005	20080311	03/11/2010
PROPOSED GAS STATION,FASTFOOD,CARWASH, STORE				
CUP03477	APPROVED	11/14/2005	20080402	04/02/2010
CUP FOR EXISTING STRUCT FOR OFFICE SP/VEHICLE STOR				
CUP03620	APPROVED	03/30/2009	20120118	01/18/2014
GAS STATION/CONV STORE/RETAIL BUILDING				
CUP03620R1	APPROVED	10/23/2013	20141106	NA
ALLOW BEER&WINE SALES WITHIN GAS STATION/MARKET				
CUP03642	APPROVED	04/19/2010	20140128	NA
EXISTING USE AS CONVENIENT STORE W/PROPANE &ALCOHO				
PM25051	APPROVED	01/25/1990	19910514	05/14/1996
DIVIDE APPROX 4 ACRES INTO 4 PARCELS				
PM26154	APPROVED	07/17/1990	19920225	02/25/1998
SUBDIVIDE INTO 4 LOTS				
PM26697	APPROVED	05/02/1991	19970211	02/11/2000
SUBDIVIDE 2.12 ACRES INTO TWO PARCELS.				
PM26873	APPROVED	04/12/1991	19920707	07/07/1998
DIVIDE 2.50 ACRES INTO 4 PARCELS				
PM27140	APPROVED	09/25/1991	19920526	05/26/1998
3.99AC INTO TEN INDUSTRIAL PARCELS				
PM27445	APPROVED	03/25/1992	19930316	03/16/1999
DIVIDE APPROX 14 ACRES INTO 10 LOTS				
PM27485	APPROVED	04/21/1992	19930126	01/26/1999
SUBDIVIDE 26.73 ACRES INTO 10 INDUSTRIAL LOTS				
PM29716	APPROVED	05/18/2000	20000725	07/25/2004
SUBDIVIDE 4.45 ACRES INTO 4 COMMERCIAL PARCELS				
PM33357	APPROVED	10/18/2005	20080421	04/21/2015
SCHED H DIVISION OF 3 AC INTO 3 ONE AC PARCELS.				

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Approved Cases as of 04/09/2015

CASE NAME	STATUS	APPLIED DATE	APPROVAL DATE	EXPIRED DATE
CASE DESCRIPTION				
PM33478	APPROVED	03/21/2006	20070730	07/30/2013
SCHED H DIVISION OF 2.35AC INTO TWO 1-AC PARCELS.				
PM33942	APPROVED	07/28/2005	20080625	06/25/2017
PM33942 PROPOSES A SCHEDULE E SUBDIVISION OF 68.85				
PM34039	APPROVED	10/03/2005	20061113	11/13/2014
SCHED H DIVISION OF 3 AC INTO 3 1-AC. MIN PARCELS				
PM34971	APPROVED	05/31/2007	20080616	06/16/2015
SCHED H DIVISION OF 2.29 AC INTO 2 SFR PARCELS.				
PM35557	APPROVED	08/13/2007	20080722	07/22/2015
Schedule H subdivision of 2.5ac into two parcels				
PM35780	APPROVED	09/20/2007	20080630	06/30/2015
SCHED H DIVISION OF 2.02 ACRES INTO TWO PARCELS.				
PP09997R1	APPROVED	02/19/1997	19970424	NA
REV.PP ADD 10,000 SQFT MAINT BLD. 2400 SQFT OFFICE				
PP09997R2	APPROVED	08/10/2000	20010502	NA
RVP FOR 12,800 SQ FT MAINT BLDG W/OUTDOOR STORAGE				
PP12994	APPROVED	09/25/1991	19920309	03/09/1994
PLOT PLAN FOR PLANNED INDUSTRIAL DEVELOPMENT FOR 8				
PP14485	APPROVED	12/19/1995	19960122	01/22/1999
CONSTRUCTION EQUIP AUCTION				
PP14485R1	APPROVED	08/20/2001	20021104	NA
HEAVY EQUIPMENT AUCTION YARD				
PP14974	APPROVED	04/25/1997	19970630	06/30/1999
STEEL BUILDING FABRICATION				
PP15189R1	APPROVED	02/28/2002	20020812	NA
CO-LOCATE ANT'S/EXPAND LEASE AREA-SEE DESCRIPTION				
PP15189R2	APPROVED	07/03/2007	20070809	NA
INSTALL 30KW EMERGENCY GENERATOR W/IN FACILITY Non-traffic				
PP15197	APPROVED	10/30/1997	19971201	12/01/1999
3 INDUSTRIAL BUILDINGS				
PP16711	APPROVED	09/01/2000	20011217	NA
150' UNMANNED TELECOMMUNICATION MONOPOLE Non-traffic				
PP16763	APPROVED	10/11/2000	20001212	12/12/2002
19500 SQ FT IND BUILDING (18,570 WAREHOUSE 930 OFF				
PP16823	APPROVED	11/17/2000	20010208	02/08/2006
TO CONSTRUCT A 22,000 SQ FT MANUFACTURING FACILITY				
PP16932	APPROVED	02/02/2001	20010423	NA
SHEET METAL MANUFACTURING, 12,000 SQ FT STEEL BLDG				
PP16932R1	APPROVED	10/17/2008	20110711	07/12/2013
ADD RECYCLING COLLECTION CENTER TO A 12,000 S.F. P				
PP18961	APPROVED	10/28/2003	20041215	NA
NATIONAL ARCHIVES & RECORDS ADMIN. WAREHOUSE FAC.				
PP19521	APPROVED	06/11/2004	20061113	11/13/2008
HAY AND FEED STORE				

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Approved Cases as of 04/09/2015

CASE NAME	STATUS	APPLIED DATE	APPROVAL DATE	EXPIRED DATE
CASE DESCRIPTION				
PP19728	APPROVED	09/01/2004	20070227	02/27/2009
CONTRACTORS STORAGE YARD, VEHICLE MAINT AND ADMIN				
PP20699	APPROVED	07/28/2005	20080625	06/25/2012
PP20699 PROPOSES TO DEVELOP FIVE (5) INDUSTRIAL /				
PP20699R1	APPROVED	06/16/2011	20110816	08/16/2013
REDUCE FROM 5 INDUS BLDG TO 3/MODIFY DRAINAGE AND				
PP21552	APPROVED	03/21/2006	20061218	12/18/2008
PROSPD 6 LIGHT INDUS BLDGS; TOTAL OF 14 PARCELS.				
PP21714	APPROVED	05/04/2006	20070921	09/21/2009
UNMNND WRLSS COMM 65' MONOTREE BROADLEAF/OUTDOOR E				
PP22532	APPROVED	02/09/2007	20080107	01/07/2010
OFFICE AND MANUFACTURING FACILITY				
PP23342	APPROVED	03/20/2008	20080820	10/28/2013
MULTI USE INDUSTRIAL PARK WAREHOUSE BUILDINGS				
PP24608	APPROVED	06/17/2010	20140908	09/08/2016
FEED & GRAIN SALES W/6400 SF HAY BARN, 2880 SF STO				
PP24735	APPROVED	09/30/2010	20120326	03/26/2014
50' MONOPINE/12 PANNL ANTS/1 MICRO/6 EQUIP CABINTS				
PP25067	APPROVED	12/22/2011	20130603	06/03/2015
VERIZON 65 FT MONOEUCALYPTUS WIRELESS FACILITY/12				
PP25252	APPROVED	12/20/2012	20130205	NA
399,150 SF WAREHOUSE/OFFICE BLDG FOR DISCOUNT TIRE				
PUP00325	APPROVED	12/26/2000	0	NA
PUP00693	APPROVED	11/17/1989	19910108	01/08/1993
BUILD A CHURCH				
PUP00697	APPROVED	12/22/1989	19940816	08/15/1996
CHURCH FACILITY				
PUP00726	APPROVED	07/26/1991	19911015	10/15/1993
OFFICES AND DAY CARE CENTER				
PUP00765	APPROVED	03/31/1995	19950905	09/05/1997
PUBLIC USE PERMIT FOR 32-BED RESIDENTIAL CARE FACI				
PUP00856	APPROVED	07/19/2002	20030415	NA
DAY CARE CENTER				
PUP00856R1	APPROVED	06/11/2008	20090624	06/24/2011
RENEWTIME&EXPANSION OF EXISTING DAY CARE FACILITY				
PUP00856R2	APPROVED	01/09/2012	20121219	12/29/2014
ADD 2,596 SQ FT CARE TAKERS QUARTER,ADD 2,400SQ FT				
PUP0315	APPROVED	08/07/2000	19751031	11/01/1985
EXPANSION OF FAMILY CARE HOME				
PUP0325	APPROVED	08/07/2000	0	NA
SP00341	APPROVED	04/21/2004	20051012	NA
FOR 6.2 MILLION SQ FT BUS PARK & LGT IND.				

non-traffic

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Approved Cases as of 04/09/2015

CASE NAME	STATUS	APPLIED DATE	APPROVAL DATE	EXPIRED DATE
CASE DESCRIPTION				
TR23234	APPROVED	12/14/1987	19880607	06/07/2001
DIVIDE 44.55 ACRES INTO 170 SINGLE FAMILY RESIDENC				
TR23234M2	APPROVED	08/27/1996	19970429	06/07/2001
MC TO TR23234 TO RECONFIGURE STREETS AND LOTS				
TR30592	APPROVED	01/08/2003	20040225	02/25/2016
TO SUBDIVIDE 34 ACRES INTO 131 SFR LOTS				
TR30592M1	APPROVED	09/01/2005	20060208	02/25/2016
REMOVE TRANS COND. 50.TRANS.22 FOR ROW IMPROVEMNT non-traffic				

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Charlene Hwang So

From: Cecilia So
Sent: Thursday, June 18, 2015 5:50 PM
To: Charlene Hwang So
Cc: CMS Administrator
Subject: FW: 09301: City of Perris Cumulative Developments
Attachments: Site Plan.pdf; Case Map Final.pdf

From: Diane Sbardellati [mailto:dsbardellati@cityofperris.org]
Sent: Monday, June 08, 2015 4:56 PM
To: Cecilia So
Subject: RE: 09301: City of Perris Cumulative Developments

Cecelia,

Sorry for the delay. There's been no updates to this map, unfortunately. I can tell you one of Urban Crossroads projects should be on it – the Integra Distribution Center. I've attached a site plan.

Diane Sbardellati, LEED AP
Associate Planner
City of Perris

(951) 943-5003

From: Cecilia So [mailto:ckso@urbanxroads.com]
Sent: Wednesday, June 03, 2015 4:47 PM
To: Cecilia So; Diane Sbardellati
Cc: Charlene Hwang So; CMS Administrator; Ilene Paik
Subject: RE: 09301: City of Perris Cumulative Developments

Hi Diane,

I wanted to make sure you were in receipt of my request for cumulative developments in the City of Perris. Could you please provide me with any updates that you may have at this time?

Thank you,

CECILIA SO
Assistant Analyst

URBAN CROSSROADS

41 Corporate Park, Suite 300
Irvine, CA 92606
(949) 336-5995 Direct
(949) 660-1994 Main
urbanxroads.com

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

From: Cecilia So
Sent: Monday, May 18, 2015 9:55 AM
To: 'dsbardellati@cityofperris.org'
Cc: Charlene Hwang So; CMS Administrator; 'ipaik@cityofperris.org'
Subject: 09301: City of Perris Cumulative Developments

Hi Diane,

Could you please review the attached map and list of cumulative developments in the City of Perris, and provide any updates that you may have? We have an upcoming project in the City of Moreno Valley that we will be starting soon and wanted to get an updated list of projects for inclusion in the traffic study. Thank you in advance.

CECILIA SO
Assistant Analyst

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Charlene Hwang So

From: Cecilia So
Sent: Wednesday, June 03, 2015 4:23 PM
To: Bawany, Suhaim
Cc: Charlene Hwang So; CMS Administrator; Randel, Travis; Mustafa, Nathan; Eastman, Jay; Murray, David
Subject: RE: City of Riverside Cumulative Developments

Thank you Suhaim, you have been very helpful. Have a great day!

CECILIA SO
Assistant Analyst

URBAN CROSSROADS

41 Corporate Park, Suite 300
Irvine, CA 92606
(949) 336-5995 Direct
(949) 660-1994 Main
urbanxroads.com

From: Bawany, Suhaim [mailto:SBawany@riversideca.gov]
Sent: Tuesday, June 02, 2015 5:21 PM
To: Cecilia So
Cc: Charlene Hwang So; CMS Administrator; Randel, Travis; Mustafa, Nathan; Eastman, Jay; Murray, David
Subject: RE: City of Riverside Cumulative Developments

Hello Cecilia

The list we have is a comprehensive list of all projects and you can feel free to modify the excel sheet to fit your needs. In terms of projects without an approval date, it usually means they are still in the planning stages and have not been approved by either the Planning Commission or City Council.
And the projects highlighted in yellow, those are fairly new projects in the pipeline that have been presented to the Planning Commission or City Council from February until May 2015. Sorry for not clarifying earlier.

Hope this helps and have a nice day.

Thank you!

Suhaim M. Bawany
Planning Technician
City of Riverside | Planning Division
3900 Main Street | Third Floor | Riverside, CA
tel: (951) 826-5371 | fax: (951) 826-5981

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

From: Cecilia So [mailto:ckso@urbanxroads.com]
Sent: Tuesday, June 02, 2015 2:00 PM
To: Bawany, Suhaim
Cc: Charlene Hwang So; CMS Administrator; Randel, Travis; Mustafa, Nathan; Eastman, Jay; Murray, David
Subject: RE: City of Riverside Cumulative Developments

Hello Suhaim,

Would it be appropriate to remove projects with an approval date beyond 2 years (2013)? If so, what should we assume for projects without an approval date? Additionally, I was wondering if there was any significance for the items highlighted in yellow?

Thank you again for your help!

CECILIA SO
Assistant Analyst

URBAN CROSSROADS

41 Corporate Park, Suite 300
Irvine, CA 92606
(949) 336-5995 Direct
(949) 660-1994 Main
urbanxroads.com

From: Bawany, Suhaim [mailto:SBawany@riversideca.gov]
Sent: Monday, June 01, 2015 5:08 PM
To: Cecilia So
Cc: Charlene Hwang So; CMS Administrator; Randel, Travis; Mustafa, Nathan; Eastman, Jay; Murray, David
Subject: RE: City of Riverside Cumulative Developments

Hello Cecilia

All cases have been filtered into one tab labeled "**ALL**".
Unfortunately we haven't updated the Map associated with this list at this time. I will coordinate with Dave to update the Map.

Sorry for the inconvenience.

Suhaim M. Bawany
Planning Technician
City of Riverside | Planning Division
3900 Main Street | Third Floor | Riverside, CA
tel: (951) 826-5371 | fax: (951) 826-5981

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

From: Cecilia So [mailto:ckso@urbanxroads.com]
Sent: Monday, June 01, 2015 1:33 PM
To: Bawany, Suhaim
Cc: Charlene Hwang So; CMS Administrator; Randel, Travis; Mustafa, Nathan; Eastman, Jay; Murray, David
Subject: RE: City of Riverside Cumulative Developments

Hi Suhaim,

Thank you for the quick turnaround and your assistance. I was wondering if you could provide me with any guidance in regards to filtering through this comprehensive list (i.e., if there is a specific tab we should focus on, or if we can eliminate projects that were approved older than X amount of years). Additionally, I noticed that there is a column titled "Map ID #," could you send me the accompanying map to this list?

Thank you for your help!

CECILIA SO
Assistant Analyst

URBAN CROSSROADS

41 Corporate Park, Suite 300
Irvine, CA 92606
(949) 336-5995 Direct
(949) 660-1994 Main
urbanxroads.com

From: Bawany, Suhaim [mailto:SBawany@riversideca.gov]
Sent: Monday, June 01, 2015 1:25 PM
To: Cecilia So
Cc: Charlene Hwang So; CMS Administrator; Randel, Travis; Mustafa, Nathan; Eastman, Jay; Murray, David
Subject: RE: City of Riverside Cumulative Developments

Hello Cecilia

Here is the most updated Cumulative Projects List as of May 2015.

Thank you!

Suhaim M. Bawany
Planning Technician
City of Riverside | Planning Division
3900 Main Street | Third Floor | Riverside, CA
tel: (951) 826-5371 | fax: (951) 826-5981

From: Cecilia So [mailto:ckso@urbanxroads.com]
Sent: Monday, June 01, 2015 11:44 AM
To: Eastman, Jay; Murray, David
Cc: Charlene Hwang So; CMS Administrator; Bawany, Suhaim; Randel, Travis; Mustafa, Nathan
Subject: RE: City of Riverside Cumulative Developments

Hi Jay,

That's no problem. Thank you for the information!

CECILIA SO
Assistant Analyst

URBAN TRANSPORTATION

41 Corporate Park, Suite 300
Irvine, CA 92606
(949) 336-5995 Direct
(949) 660-1994 Main
urbanxroads.com

From: Eastman, Jay [mailto:JEastman@riversideca.gov]
Sent: Monday, June 01, 2015 11:40 AM
To: Cecilia So; Murray, David
Cc: Charlene Hwang So; CMS Administrator; Bawany, Suhaim; Randel, Travis; Mustafa, Nathan
Subject: RE: City of Riverside Cumulative Developments

Cecila,

To provide a bit of clarification, a cumulative list was created last week, and was reviewed late Friday by the Principal Planner who leads the Current Planning Projects Team. Dave will get you the list as soon as possible.

Jay S. Eastman, AICP
Interim City Planner
Planning Division
Community & Economic Development Department
City of Riverside
E: jeastman@riversideca.gov
O: (951) 826-5264
F: (951) 826-5981

From: Cecilia So [mailto:ckso@urbanxroads.com]
Sent: Monday, June 01, 2015 11:27 AM
To: Murray, David
Cc: Eastman, Jay; Charlene Hwang So; CMS Administrator; Bawany, Suhaim; Randel, Travis
Subject: RE: City of Riverside Cumulative Developments

Hi Dave,

I wanted to follow up regarding the status of obtaining an updated cumulative list. Could you please provide me with any updates you may have?

Thank you for your help!

CECILIA SO
Assistant Analyst

URBAN CROSSROADS

41 Corporate Park, Suite 300
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(949) 336-5995 Direct
(949) 660-1994 Main
urbanxroads.com

From: Cecilia So
Sent: Wednesday, May 20, 2015 12:28 PM
To: 'Murray, David'
Cc: Eastman, Jay; Charlene Hwang So; CMS Administrator; Bawany, Suhaim; Randel, Travis
Subject: RE: City of Riverside Cumulative Developments

Hi Dave,

Thanks for your prompt response. We're estimating that we will need the cumulative development information by the end of next week (05/29), at the latest in order to meet our deadlines. Please let me know if this date is possible for you. Thank you for your help.

CECILIA SO
Assistant Analyst

URBAN CROSSROADS

41 Corporate Park, Suite 300
Irvine, CA 92606
(949) 336-5995 Direct
(949) 660-1994 Main
urbanxroads.com

From: Murray, David [mailto:DMurray@riversideca.gov]
Sent: Wednesday, May 20, 2015 12:21 PM
To: Cecilia So
Cc: Eastman, Jay; Charlene Hwang So; CMS Administrator; Bawany, Suhaim; Randel, Travis
Subject: RE: City of Riverside Cumulative Developments

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Cecilia,
We will take a look at any projects that may have been entitled since we last provided a cumulative list in February. I am copying our Planning Technician, Suhaim Bawany. He compiled the previous list for you and will likely provide assistance on this request. Do you have a target date you would like this data?

Thanks,
Dave

David Murray, Senior Planner
City of Riverside | Community Development Department | Planning Division
3900 Main Street, Third Floor | Riverside, CA 92522
(951) 826-5773
dmurray@riversideca.gov

Riverside RECONNECTS STREETCAR STUDY

From: Cecilia So [mailto:ckso@urbanxroads.com]
Sent: Monday, May 18, 2015 9:41 AM
To: Murray, David
Cc: Eastman, Jay; Charlene Hwang So; CMS Administrator
Subject: City of Riverside Cumulative Developments

Hi Dave,

Could you please review the attached map and list of cumulative developments in the City of Riverside, and provide any updates that you may have? We have an upcoming project in the City of Moreno Valley that we will be starting soon and wanted to get an updated list of projects for inclusion in the traffic study. Thank you in advance.

CECILIA SO
Assistant Analyst

URBAN CROSSROADS

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Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
C1	P07-1161	2111 Iowa St	Conditional use permit to establish an indoor rock climbing facility in an existing industrial building	2.80	5,580	-	CC 1/15/08
C2	P07-1181 P07-0593	381 Alessandro Blvd	Revised Conditional Use Permit, Design Review for Auto Parts Store	1.17	1,500	-	CC 5/6/08
C3	P06-0028 P06-0029 P06-0031	3520 Market St	CUP/DR/TM34945; Fox Plaza Mixed Use Development, Up to 205 Condos, restaurant, retail space, 125 unit Hyatt Place Hotel	1.90	31,600	205	CC 6/10/08
C4	P08-0201 P08-0202	1054 N. Orange St	Conditional use permit and design review of plot plan for Senior Apartment Complex	0.77	-	23	CC 6/17/08
C5	P08-0274 P08-0275	2570 Canyon Springs Pkwy	Conditional Use Permit, Design Review for Commercial Bank w/Drive-thru	0.14	2,746	-	CC 9/9/08
C6	P08-0407	19743 Luren Ave	Conditional use permit to allow the construction of a children's daycare center	3.85	10,000	-	CC 11/4/08
C7	P08-0491 P08-0948	1690 Spruce St	Conditional Use Permit to allow entertainment within an existing 7,004 square foot building located in the Business Manufacturing Park in the Hunter Business Park Specific Plan	-	7,004 (existing bldg)	-	CC 2/17/09
C8	P08-0980 P09-0095	3549 Iowa Ave	Revised Conditional Use Permit to allow double-bedroom occupancy and to increase the number of student beds from 760 up to 874 at an existing student housing establishment	11.70	-	-	CC 4/28/09
C9	P08-0960 P09-0025	1360 University Ave	Revised Conditional Use Permit, Design Review to convert existing ground floor retail space into 8 new student housing units (24 bedrooms), allow double-bedroom occupancy, and increase the number of overall student beds from 528 up to 635 beds	5.00	11,459	8	CC 5/12/09
C10	P09-0147	7840 Indiana Ave	Conditional use permit; Car & tire sales, auto body repair & painting	0.86	12,510 (existing bldg)	-	CC 6/9/09
C11	P09-0142	NE corner of Jurupa and Payton Aves	Conditional Use Permit to allow for the development of a surface vehicular storage lot	4.22	-	-	CC 6/23/09
C12	P09-0125	3500 Iowa Ave	Revised Conditional Use Permit to allow double-bedroom occupancy and to increase the number of student beds from 525 to 548 in existing student housing	1.70	-	-	CC 7/28/09
C13	P09-0185	7590-94 Indiana Ave	Conditional use permit; Drive-thru restaurant	0.90	280 (existing bldg)	-	CC 8/11/09
C14	P09-0207 P09-0209 P09-0210	2624 E. Alessandro Blvd	CUP, PM36205, DR Arco Car Wash	1.88	42 ft. long wash tunnel with 100 ft stacking lane	-	CC 10/20/09
C15	P09-0612	1737 Atlanta Ave	Conditional Use Permit to establish an adult day care/work skills learning facility for up to 39 developmentally disabled adults	7.60	3,900 (lease space in existing 41,000 sq.ft. building)	-	CC 12/15/09
C16	P08-0301	6115 Arlington Ave	Conditional use permit; Harvest Christian Fellowship; 450-stall parking Lot	5.38	-	-	ZA 1/27/10
C17	P09-0530 P09-0531	1821 – 1855 Third St	Conditional Use Permit, Design Review for the temporary storage of buses for RTA	2.60	-	-	CC 2/2/10
C18	P09-0582 P09-0583	150 Palmyrita Ave	Conditional Use Permit, Design Review for the establishment of a Sandals Church within an existing building	7.50	95,654 (existing bldg)	-	CC 1/5/10

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Conditional Use Permits

City of Riverside Cumulative Projects List (2/13/14)

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
C19	P09-0717 P09-0718	807 Blaine St	Site Plan Review; Apartment complex	2.00	5,490	55	CC 4/6/10
C20	P09-0808 P08-0809	2340 Fourteenth St	Conditional Use Permit to allow the development of a 4-story, 134 bed senior housing complex	2.87	101,974 (existing bldg)	121	CC 6/14/11
C21	P09-0811	7170-72 Indiana Ave	Conditional use permit; Veterinary clinic	0.45	4,402	-	CC 5/4/10
C22	P09-0835 P10-0002	3372 University Av	Conditional Use Permit and Certificate of Appropriateness to allow the establishment of an approximately 94-foot tall, 6-story office building with a four-story subterranean parking structure containing 453 parking spaces in the Downtown Specific Plan-Raincross District	0.82	132,136	-	CC 4/27/10
C23	P10-0083	10938 Magnolia Ave	Conditional Use Permit, Initial Study; Walgreens	2.92	14,064	-	CC 7/13/10
C24	P10-0090 P10-0091	6287 Day St	Conditional Use Permit, Design Review; Arco, new Gas Canopy and repainting of building fueling station and add 2 additional multi-product fuel pumps	0.91	2,700	-	CC 6/8/10
C25	P10-0095 P10-0168 P10-0171	3050 Chicago Ave	Conditional Use Permit, Rezoning, Design Review for charter school for approximately 250 students from grades K-8; Rezone from BMP to O	1.85	15,685	-	CC 7/27/10
C26	P12-0248	7500 Jurupa Ave	Time extension of conditional use permit (P10-0128) to establish a building materials supply store with wholesale ancillary retail sales within a previously approved 36,822 square foot industrial building	6.59	36,822	-	ZA 5/25/12
C27	P10-0366 P10-0368	3501 Adams St	Rezoning property from Office to Commercial Retail; Conditional Use Permit to allow Check Cashing facility	0.50	3,176 (lease space in existing bldg)	-	CC 7/13/10
C28	P10-0219	4183 Fairgrounds St	Conditional use permit; establish a church with 180 fixed seats within an existing 10,312 square foot industrial building	0.81	10,312 (existing bldg)	-	CC 7/13/10
C29	P10-0259 P10-0270	6686 Indiana Ave	Conditional Use Permit, Design Review; Baker's drive-thru restaurant	0.65	2,234	-	CC 7/27/10
C30	P10-0380	1820 - 1860 University Ave	Conditional Use Permit allow the establishment of a vocational school for approximately 150 students within an existing 29,870 square foot building in the University Avenue Specific Plan	3.31	29,870	-	CC 10/12/10
C31	P10-0511	4500 Riverwalk Pkwy	Conditional Use Permit; La Sierra University School of Business building	30.44	68,573	-	ZA 11/1/10
C32	P10-0557 P10-0559	6365 Valley Springs Pkwy	Conditional Use Permit, Design Review for construction of Navy Federal Credit Union	1.68	3,500	-	CC 1/11/11
C33	P09-0731 P10-0567 P10-0568	1715 – 1745 University Ave	Amendment to the University Avenue Specific Plan to allow drive-thrus in conjunction with retail pharmacies in Subarea 1; CUP/DR for a Walgreens.	0.8	15,004	-	CC 2/8/11
C34	P10-0506 P10-0507 P10-0508 P10-0509	3020 Iowa Ave; northeast corner of Iowa Ave and Blaine St	Conditional Use Permit, Rezoning, Lot Line Consolidation, Variance; student housing project with 216 one, two and four bedroom units with a total of 614 beds within three four-story buildings; Rezone from R-1-7000 to R-3-1500	8.10	-	216	CC 2/22/11
C35	P10-0733	2059 Atlanta Ave	Conditional Use Permit to establish a church with 598 fixed seats within an existing building	3.52	52,000 (existing bldg)	-	CC 3/8/11

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
C36	P09-0419 P10-0476	2278 Main St	Conditional Use Permit, Design Review; Redesign of site with a Gas Station & Car Wash; Request includes off sale of beer & wine	0.77	3,100	-	CC 3/8/11
C37	P10-0715	7701 Indiana Ave	Conditional use permit; Vehicle repair facility	0.70	4,085	-	CC 4/5/11
C38	P11-0014 P11-0015	8432 Magnolia Ave	Conditional use permit and design review for California Baptist University to facilitate the construction of a 42 1/2 foot tall, 2-story building (School of Business) in the Magnolia Ave Specific Plan	1.24	56,717	-	CC 4/26/11
C39	P10-0685 P10-0794	1855 Columbia Ave	Conditional Use Permit, Design Review for an automated vehicle wash facility, new fuel pump, overhead canopy structure and façade improvements to an existing convenience store	0.63	1,014	-	CC 5/24/11
C40	P10-0707 P10-0708	North side Van Buren Blvd, 200 ft West of Wood St	Conditional Use Permit, Design Review for construction of Baker's Drive-Thru	1.17	2,361	-	CC 5/24/11
C41	P11-0018	8537 Magnolia Ave	Conditional Use Permit to convert an existing independent senior housing complex to an assisted living facility for seniors within Magnolia Avenue Specific Plan	2.36	-	98	CC 6/14/11
C42	P11-0087 P11-0088	3520 Adams St	Conditional Use Permit and Design Review for California Baptist University to facilitate the first phase renovation of the existing Adams (Lancer) Plaza for the construction of 2-story, 48 foot tall Student Recreation Center toward the rear (west) portion of the complex in the Magnolia Avenue Specific Plan	7.24	62,463	-	CC 6/14/11
C43	P11-0131 P11-0132	8432 Magnolia Ave	Conditional use permit and Certificate of Appropriateness for California Baptist University to construct a single-story building for expansion of the existing Central Energy Plant and relocation of the CBU Ceramics and Sculpture Studio in the Magnolia Avenue Specific Plan; project is in close proximity to historic James Complex and Harden Square	-	5,745	-	CC 7/12/11
C44	P11-0192 P11-0196	3747 Monroe Ave	Conditional use permit and Certificate of Appropriateness for California Baptist University to construct a new 317-space parking lot and associated improvements. In addition, design improvement to the Hawthorne House and the surrounding landscape. Project site is located in the Magnolia Avenue Specific Plan Overlay Zones	4.02	-	-	CC 8/9/11
C45	P11-0082	711 N. Main St	Conditional Use Permit to legalize an existing vehicle impound yard and offices on a site developed with two single-story office buildings and a predominantly unpaved surface parking lot	0.99	7,737 (existing bldgs)	-	CC 10/18/11
C46	P11-0545	1540 Linden St	Conditional use permit to allow the establishment of a church with 80 fixed seats within an existing building	0.64	11,346 (existing bldg)	-	CC 11/1/11

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Conditional Use Permits

City of Riverside Cumulative Projects List (2/13/14)

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
C47	P11-0460	1044 East La Cadena Dr	Conditional use permit to legalize and expand an adult day care/work skills learning facility for up to 90 developmentally disable adults and 30 staff members within an existing building	1.20	8,562 (existing bldg)	-	CC 12/6/11
C48	P11-0623 P11-0713	10121 Hole Ave	Conditional use permit to convert existing retail space into new fitness facility in the Magnolia Avenue Specific Plan	1.45	15,362	-	CC 2/7/12
C49	P12-0234	3439 Arlington Ave	Design Review; LA Fitness ~9,600 square foot expansion to an existing ~42,000 square foot health and fitness club	5.50	~51,6000	-	ZA 05/31/12
C50	P12-0019 P12-0156 P12-0158	NW cor Riverwalk Parkway and Flat Rock Dr	Conditional Use Permit, Specific Plan Amendment, and Design Review of plot plan and building elevations to facilitate the construction of a vehicle fuel station and wash facility as a 2,400 square foot convenience store and a 3,946 square foot coffee shop in the Commercial Retail La Sierra University Specific Plan Overlay Zone	1.17	6,346	-	CC 9/4/12
C51	P10-0438	3875 Dawes St	DR; Magnolia Garden Condominiums	3.61	-	62	ZA 9/21/12
C52	P12-0266 P12-0267 P12-0268	5938 - 5944 Grand Ave	Conditional Use Permit and Design Review for a 2-story senior housing facility with associated parking, on two vacant parcels approximately 1.4 acres	1.40	-	37	CC 10/9/12
C53	P12-0351	3550 Vine St	Conditional Use Permit to allow the establishment of a vocational/technical school for a maximum of 252 students at any one time within an existing 40,060 square foot 3-story office building in the Marketplace Specific Plan	2.60	10,000 of 2nd floor of existing bldg	-	CC 10/9/12
C54	P11-0627 P11-0628 P11-0777 P11-0778	4901 La Sierra Ave	CUP, DR, LL, RZ; Service Station and Convenience Store at 5-Points	1.01	4,100	-	CC 10/9/12
C55	P12-0360	2100 Alessandro Blvd	Conditional Use Permit to establish a vocational school on a site currently developed with an approximately 11,505 square foot single-story retail building in the Sycamore Canyon Business Park Specific Plan	2.15	11,505 (existing bldg)	-	CPC 12/6/12
C56	P11-0329 P11-0330 P11-0332	1101-1163 Marlborough Ave and 3960 11th St	Conditional use permit, variance and design review for a new passenger train station platform and parking lot for Metrolink Service expansion along with existing SBJL right of way. This is within the Business Manufacturing Park (1101-1163 Marlborough Ave) and Downtown Specific Plan Almond Street District (3960 11th St)	9.56	-	-	CC 12/11/12
C57	P12-0520 P12-0524	3580 Adams St	Conditional use permit; California Baptist University student services complex; rehabilitate existing retail space		36,266	-	CC 1/8/13
C58	P12-0605 P12-0606	4250 Van Buren Blvd	Conditional Use Permit and Design Review, to allow the expansion of a vehicle fuel station consisting of construction of second set of pumps and 1,776 sq.ft. canopy at existing "Food 4 Less" supermarket	7.45	-	-	CC 4/9/13

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
C59	P12-0419 P12-0557 P12-0558 P12-0559	360 Alessandro Blvd	Conditional Use Permit and Design Review to allow the establishment of a stand-alone financial institution; General Plan Amendment to change property from MDR to C; Rezoning from Residential Estate to Office	0.84	3,858	-	CC 5/7/13
C60	P12-0761 P12-0442 P12-0443 P12-0444	2831 Mary St	Conditional Use Permit to allow the development of a CVS drug store that coincides with Stater Bros redevelopment project (Conditional Use Permit, Rezoning, and Design Review)	6.30	56,101	-	CC 5/14/13
C61	P12-0742	6825 - 6900 Jurupa Ave	Conditional Use Permit; Riverside Auto Auction; Vehicle Storage Yard, Minor Vehicle repair and inspections within an existing office/industrial building where the outdoor storage of wholesale vehicles has been previously approved (P10-0282, CC Approved 10/19/10)	27.71	56,000 (existing bldg)	-	CC 6/11/13
C62	P13-0060	5160 Arlington Ave	Conditional Use Permit request on behalf of Chase Bank to allow an existing one drive-thru lane on an existing 4576.87 square foot building to be demolished and reconstructed to include a two lane 36-foot drive thru lane for business purposes	6.26	4,576.87 (existing bldg)	-	CC 6/25/13
C63	P13-0087 P13-0262	2450 Market St	CUP/DR; Conditional Use Permit to allow the reuse of a Senior assisted living facility to allow it to become a low-income single family apartment complex in the Downtown Specific Plan-Market Street Gateway District	1.42	Existing 16,730 sq.ft.complex	77	CPC 8/8/13
C64	P13-0432	6091 Victoria Ave	Conditional Use Permit to construct and operate a day care center at a church facility in a residential & cultural resources zone	3.40	1,831 (existing bldg)	-	CC 9/24/13
C65	P13-0470	8223 California Ave	Conditional Use Permit to re-establish a church and private school; originally approved in 1950s and revised in 1981	5.20	-	-	CC 11/5/13
C66	P13-0159 P13-0160	6692 Indiana Ave	CUP, DR; Proposal to construct new 7-Eleven vehicle fuel station to operate 24 hours within a commercial retail zone	0.75	2,958	-	CC 12/3/13
C67	P13-0181 P13-0182	4824 Jones Ave	CUP, DR; Requesting the expansion of an existing building with 23,124 square foot building for an assembly of people within the Rural Residential zone.	6.14	Existing 33,542 square feet, proposed expansion 23,124 square feet	-	CC 12/17/13
C68	P10-0212 P10-0213	2069 Massachusetts Ave	CUP, DR; Proposal to legalize a bus storage yard for 180 school buses	4.38	-	-	CC 12/17/13
C69	P13-0650 P13-0651	2586 University Ave	MCUP and Certificate of Appropriateness; Proposal to convert an existing 2500 sqft 2-story residence to a bed and breakfast with an 1118 sqft addition	0.23	3,650	-	ZA 12/19/13; CHB 12/18/13
C70	P08-0402 P13-0822	18580 Van Buren Blvd	Conditional use permit to allow the construction of a one-story minor automobile repair shop; Modification of conditions to extend hours	0.93	8,142	-	Original CUP - CC 11/4/08; Modifications of conditions - CC 1/7/14
C71	P13-0785 P13-0787	4247 Van Buren Blvd	CUP, DR; Expansion of existing church	3.43	12,166	-	CC 2/25/14
C72	P13-0989	1200 Columbia Ave	CUP; Assemblies of People church and conference center within existing 64,910 sqft bldg		Existing 64,910		CC 3/11/14
C73	P13-0364 P13-0365	3399 Adams St	CUP, DR; Gas station, convenience store, car wash	0.51	2,941		CC 4/22/14

Conditional Use Permits

City of Riverside Cumulative Projects List (2/13/14)

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
C74	P14-0435	5005 Canyon Crest Dr	MCUP; Temporary use of 2 modular buildings for offices; Saint Andrew's Orthodox Church				ZA 5/22/14
C75	P13-0912 P13-0913	3742 Park Sierra Av	CUP, DR; LA Fitness Sports Club facility		45,000	-	CC 6/17/14
C76	P14-0220	4035 Trail Creek Rd	CUP; Allow occupancy of an existing 4,400 sqft industrial building for use as Sunday school classrooms and offices	-	Existing 4,400 sqft bldg	-	CC 6/17/14
C77	P13-0903 P13-0904	3865 Jackson St	CUP, DR; 18,650 sqft expansion of existing medical emergency department and construction of a 2,005 sqft utility building; Parkview Hospital Medical Center		20,655		6/19/2014
C78	P14-0457	6465 Sycamore Canyon Blvd	MCUP; Health & fitness club/studio under 4,000 sqft within existing 92,410 sqft 2-story office bldg	8.02			ZA 6/30/14
C79	P14-0132	7665 Vine St	CUP; Allow a materials (metal) processing facility to operate	2.25	2 existing bldgs, 30,324 sqft total	-	CC 7/8/14
C80	P14-0188 P14-0403	3390 Orange St	MCUP, COA; Use residential building as offices	0.21			ZA 7/21/14
C81	P14-0315 P14-0437	4334 Vine St	Revised CUP, DR; Security operations building for the adjacent Downtown Metrolink station		3,150 sqft		CPC 7/17/14
C82	P14-0450	2900 Adams St	Revised CUP; to establish classrooms and laboratories within 5 office and warehouse lease spaces; California Baptist University	9.78	9085 sqft		CPC 7/17/14
C83	P13-0967 P13-0968	NE cor Indiana & La Sierra Aves	CUP, DR; Gas station, car wash, detail center		7065 sqft		CPC 8/7/14
C84	P13-0165 P13-0166 P13-0167 P13-0168	Westerly side of La Sierra Ave, southerly of Indiana Ave, northerly of Liverpool Ln	CUP, DR, GPA, RZ; Request to construct a new gas station and car wash; GPA from Office to Commercial; Rezone from Single Family Residential to Commercial	6.83	-	-	CC 8/12/14
C85	P14-0525	3622 Adams St	MCUP; Convert apartments into student housing for California Baptist University				CC 10/09/14
C86	P14-0501 P14-0529 P14-0530	northwest corner of intersection of La Sierra Ave and Pierce Street	CUP, DR; Drive-thru fast food restaurant, Pharmacy Drive-thru, Commercial shopping center	5.21			CC 1/13/15
C87	P14-0673 P14-0675 P14-0928	northeast corner of Van Buren and Magnolia	CUP, LC, PC or N; Walgreens with Drive Thru pharmacy	0.73	10,776		CC 2/03/15
C88	P14-0812 P14-0813 P14-0979 P14-0980 P14-0981 P14-0982 P14-0983 P14-1076	9505 Magnolia	CUP, VA, DR; Sonic Dine in and Drive-Thru; VA for landscaping, Interior side landscape planter, minimum lot size, reduce drive-thru width, increase number of signs allowed, corner blade sign, reduce parking spaces.		3,275		CC 2/03/15

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
C91	P14-0536 P14-0537	Valley Springs & Corporate Centre	CUP, DR; construct an approximately 3,750-square-foot drive-thru business ("Steak and Shake"), located at the northwesterly corner of Valley Springs Parkway and Corporate Centre Place, APN 291-460-017		3,750		CC 5/5/15
C92	P13-0087 P13-0262	2450 Market Street	CUP, DR; establish a 67-unit senior housing facility within an existing three-story, approximately 51,321-square-foot building, on an approximately 1.7-acre site, located at 2450 Market Street situated on the easterly side of Market Street between Ogden Way and Northbend Street, across from Fairmount Park	1.7	51,321		CC 5/5/15
C97	P15-0247 P15-0248 P15-0250 P15-0251 P15-0252 P15-0363	3744, 3768 and 3776 Main Street	CUP, TM, VR; construction of a mixed-use project, consisting of 91 residential units, approximately 8,841 square feet of commercial space and a 115-stall parking garage, on three parcels totaling 0.62 acres, partially developed with an existing commercial building (Imperial Hardware) and a surface parking lot	1.49			
C98	P15-0155	4135 Chicago Avenue	CUP; Open a charter high school in a 10,000 square foot square site				
M1	P05-1055 P05-1056 P05-1057 P05-1058 P05-1059	5202 La Sierra Ave	Tract Map 33403, PRD, GPA, RZ, DR; Sierra Park, 62 unit	7.50	-	62	CC 7/11/06
M2	P06-0501 P06-0554 P06-0555 P06-0056 P06-0557	4710 Riverwalk Pkwy	Parcel Map 34774, SP, RZ, DR, PP; Griffin Riverwalk Apartments	25.50	-	664	CC 10/3/06
M3	P06-1031	1562 Orange St	Tract Map 31825 time extension; Single Family Residences	2.08	-	7	CPC 10/5/06
M4	P06-0900 P08-0269 P08-0270	southwest corner of Lurin Av and Wood Rd	Tract Map 32301; Single Family Residences	10.50	-	20	CPC 4/19/07
M5	P07-0279	north of California Av, west of Bolton Av	TM35455 (RC Zone), Single family residential lots; Lionhead , RC Map	25.94	-	6	CC 5/27/08
M6	P07-1073	APN: 276060003, 012	Tract Map 32180; Subdivide 2 parcels into 9 Single Family Residences in the RE-RL Zone	9.62	-	9	CPC 6/5/08
M7	P08-0084	8616 California Ave	Parcel Map 35852; California Square Redevelopment (Condos)	6.00	-	21	CC 6/17/08
M8	P06-1355	APN: 266160006, 008, 017, 018	Tract Map 33480; Single Family Residences	21.14	-	32	CPC 7/3/08
M9	P06-1396	APN: 266140029, 030	Tract Map 33481; Single Family Residences	18.78	-	25	CPC 7/3/08
M10	P06-1404	APN: 266140002, 021, 022	Tract Map 33482; Single Family Residences	15.13	-	29	CPC 7/3/08

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Conditional Use Permits

City of Riverside Cumulative Projects List (2/13/14)

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
M11	P05-0269 P08-0416	3719 Strong St	Tract Map 33550 and Rezoning of vacant parcels to establish 9 single family residential lots and rezone the property from Multiple Family Residential to Single Family Residential Zone	2.01	-	9	CC 9/16/08
M12	P06-0782	1006 and 1008 Clark St, north side of Paschels Way, east of Clark St, at the north terminus of Cozumel Ct	Tract Map 34908; single family residences	3.38	-	15	CC 1/6/09
M13	P05-1528 P09-0087	East of Gratton St, West of Corsica Ave, North of Van Buren Blvd	Tract Map 34509; 50 Single family lots; Phase I - Develop approx 60 acres to 11 subdivision lots	254.34	-	50	CC 11/06/07; CPC 4/23/09 (Phase I)
M14	P09-0141 P09-0173	South of Clarke St, west of Crystal View Terrace	Parcel Map 34583 to subdivide 2 vacant parcels into 3 single family residential lots; Rezoning 0.47 acres from R-1-1/2 to Residential Conservation Zone	5.72	-	3	CC 9/1/09
M15	P08-0396 P08-0397 P08-0398 P08-0399	NW corner of Dominion Av and Division St	Tract Map 35620; Design Review, General Plan Amendment, and Rezoning to establish a condominium complex	3.75	-	36	CC 11/10/09
M16	P07-1028 P06-0416 P06-0418 P06-0419 P06-0421 P07-0102	NW cor Alessandro Blvd & San Gorgonio Dr	TM 34707/EIR/ DR Alessandro Business Park 4 Industrial/Manufacturing Bldgs	36.63/80.07	662,018	-	CC 3/9/10; Final map approval CC 5/20/14
M17	P08-0727	6639 Hillside Ave	Parcel Map 35901; 5 lots for future industrial development	9.00	-	5	CPC 11/18/10
M18	P10-0577 P10-0671 P10-0672 P10-0798	La Sierra and Indiana Av	Riverwalk Vista Specific Plan - Village 4 (cross streets La Sierra and Indiana Avenue); Amend the Riverwalk Vista Specific Plan to allow two additional complexes (villages) to be developed. Tract Map 35932 to subdivide 21.89 acres of vacant land into 111 lots; additional Tract Map 36323 to subdivide 11.72 acres of vacant land into 52 lots located with the Single Family Residential Zone and Specific Plan (Riverwalk Vista) Overlay Zones	33.61	-	163	CC 2/22/11; Final map approvals CC 3/25/14
M19	P10-0113 P10-0118 P10-0449	19985 Van Buren Blvd; SW corner of Van Buren Blvd and Barton St	Parcel Map 36434 Scoping Session, EIR, DR; Gless Ranch - commercial retail shopping	40.00	425,447	-	CC 2/21/12
M20	P12-0021 P12-0022 P12-0074	3990 Reynolds Rd	Parcel Map 36442; General Plan Amendment to change property from C to MHDR; Rezoning from CR-SP and O-S-R-SP to R-3-3000-SP to consider the establishment of a 4-story multi-family residential development	9.7	-	102	CC 6/5/12

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
M21	P11-0675 P11-0676	South of Arlington; between Royale Pl and Sunset Ranch Dr	Tract Map 36377 and PRD; 10 lot subdivision	13.9	-	10	CC 6/11/13
M22	P13-0389	NE cor Martha Way & Everest Ave	Tract Map 36579; subdivide 2 parcels to accommodate 5 single family dwellings	1.36	-	5	CPC 1/9/14
M23	P13-0723 P13-0724 P13-0725	4325, 4335, 4345, 4355, 4375 Adams St	Tract Map 36654, PRD, DR; subdivide 7.76 acres into 62 single family planned residential development	7.76	-	62	CC 2/25/14
M24	P12-0799 P12-0800	west side of Palm Av between Beechwood & Highland Pl	Tract Map 36516 and Design Review; subdivide 1.26 ac vacant parcel into 7 single family residential lots ranging in size from 7,002 to 8,011 sq.ft.	1.26	-	7	CPC 4/3/14
M25	TM 31147	North of intersection of Wycliffe & Buchanan Streets	Final approval of Tract Map 31147; 59 lot single family subdivision	27.09	-	59	CC 4/15/14
M26	P13-0665	18875 Moss Rd	Tract Map 36641; 8 lot subdivision for future development of single family residences	5.03	-	8	CPC 4/17/14
M27	P12-0601 P12-0697 P12-0698	14601 Dauchy Ave	Tract Map 36370; GPA from VLDR to HR; RZ from R-1-1/2 acre to RC; 10 lot subdivision	9		10	4/17/2014
M28	TM32997	SE cor Alta Crest Ave & Krameria St	Final approval of Tract Map 32997 (P06-0715), a 90 lot single family subdivision	38.6		94	CC 5/20/14
M29	P03-0041 P03-0042 P03-0086	both sides of Jurupa Ave bet. Crest & Rutland Aves	Tract Map 28987, GPA, RZ; Final approval of tract map; 113 lot single family subdivision	47.54		113	CC 6/17/14
M30	P14-0593	APN 135280041	Tract Map 34236, DR; 7 lot subdivision for residential			7	11/12/2014
M31	P14-0176	southwest corner of La Sierra and Victoria Avenues	Tract Map 36713, GPA, RZ; Final approval of tract map; 14 lot single family subdivision	8.8		14	CPC 12/18/14
M32	P13-0905 P13-0906	Northerly side of Arlington Avenue, between Royale Place and Hawarden Drive	Tract Map 36604, PRD; subdivide an existing 12.41 acre parcel having an average natural slope of 26.4% into seven lots for the future construction of single family residences, as well as the establishment of an approximately 5.20 acre open space area, four lettered lots, and a public cul-de-sac street; resulting in a density of 0.56 dwellings per acre in the RC – Residential Conversation zone	12.41		.56/acre	
M33	P12-0393 P12-0394	Easterly side of Hawarden Drive, mid-block between Horace Street and Rolling Ridge Road	Parcel Map; subdivide an approximately 14.63 acre, two-parcel site into three parcels ranging in size from 1.02 to 11.61 acres; a variance for a flag lot, parcel 2, and to allow the existing parcel, located at 6260 Hawarden Drive, to increase from 0.63 acres to 1.02 acres in size, where the Hawarden Drive Special Design Area requires a minimum of 2.0 acres, located at 6240 and 6260 Hawarden Drive, in the RC – Residential Conservation Zone	14.63			

Conditional Use Permits

City of Riverside Cumulative Projects List (2/13/14)

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
M34	P14-1053 P14-1054	Northerly side of Dan Kipper Drive, westerly of the intersection of Dan Kipper Drive and Sycamore Canyon Boulevard	Parcel Map;subdivide three existing parcels, totaling 13.08 acres into 5 lots to facilitate the development of 5 warehouse buildings ranging in size from 36,424 to 53,006 square feet in size.	13.08			
M35	P14-0472 P14-0473 P15-0322 P15-0321	Northerly side of Grove Community Drive, between Trautwein Road and Worchester Lane	TM DR, VR; Tentative Tract Map (TM-39534); a related Planned Residential Development to subdivide an approximately 13.5 acre two-parcel vacant site, into 85 single family residential lots with common open space and shared amenities; the Design Review of the plot plan and building elevations for the proposed residential planned residential development; and variances related to building setback measurements in the R-1-8500-SP – Single Family Residential and Specific Plan (Orangecrest) Overlay Zones.	13.5			

G1	P08-0300	7179 Magnolia Ave	Rezoning property from R-1-7000 to Office	0.41			CC 7/22/08
G2	P07-0425 P09-0196	Magnolia Ave bet Tyler and Buchanan Sts	Magnolia Avenue Specific Plan; General Plan Amendment involving a text change to the Circulation Element of the general plan increasing Magnolia Avenue from a four lane arterial to a six lane arterial between Tyler Street and Buchanan Street				CC 11/10/09
G3	P08-0125 P07-0790	5372-5392 and 5360 Tyler St	General Plan Amendment from Semi-Rural Residential to Public Facilities Institutional; Rezoning from R-3-1500 to Public Facilities; Elementary School Expansion	2.14	Contact School District		CC 1/27/09
G4	P08-0215 P08-0216	10035-10266 Gould St	General Plan Amendment to change approx 54 parcels from HDR to MDR; Rezoning of approximately 54 parcels developed with single and multiple family residences and two vacant parcels from R-3-1500 to R-1-7000-AP-D	21.40			CC 1/27/09
G5	P08-0823	3345 Madison	Rezoning from Single Family Residential to Commercial Retail	0.50			CC 2/24/09
G6	P09-0749	NW Alamo and Main Sts	Rezoning 41 parcels from Business Manufacturing Park to Industrial	54.22			CC 3/9/10
G7	P07-0682 P07-0683	1919 Atlas Dr; 4500 - 4590 Allstate Dr., 1950 and 2000 Market St and 4300 - 4371 Latham St	General Plan Amendment to O; Rezoning from CR to O; 13 parcels	14.09			CC 3/24/09
G8	P09-0002	2255 Chicago Avenue and 1725 – 1735 Spruce St	Rezone a commercial center from the I-SP to the I-BSR-SP Zone	1.70			CC 3/24/09
G9	P09-0551	3524 Central Ave	Rezoning property from the R-1-7000 to Commercial Retail in the Magnolia Avenue Specific Plan	0.44			CC 4/13/10
G10	P09-0112 P09-0113	APN: 234231045	Rezoning from R-1-7000 to Business Manufacturing Park; General Plan Amendment from MDR to B/OP	3.27			CC 5/26/09

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
G11	P09-0424	7797 and 7779 Indiana Ave	Rezoning approximately .51 acres of vacant property on the northwesterly side of Indiana Avenue between Jefferson Street and Winstrom Street, from R-1-7000 to CG in the Riverside Auto Center Specific Plan	0.51			CC 10/13/09
G12	P10-0080	1989 Massachusetts and 2800 – 2880 Hulen Pl	Rezoning from the I zone to the I-ES zone	1.80			CC 6/8/10
G13	P10-0454	4825 Tequesquite Ave	General Plan Amendment to change the Tequesquite Park site from Private Recreational Use to Public Park	43.64			CC 5/17/11
G14	P10-0377	6458 Van Buren Blvd	Rezoning property from Business Manufacturing Park to Commercial Retail	4.04			CC 6/28/11
G15	P11-0595 P11-0596	3375 Arlington Ave	General Plan Amendment to change portion of property from Office to Public Facilites; Rezoning portion of property from Commercial General to Residential Commercial Zone	0.8			CC 7/24/12
G16	P12-0334	NE cor Tequesquite & San Andreas Aves	City initiated General Plan Amendment for compliance with the new Housing Element (2006-2014); From MHDR to HDR for consistency with R-3-1500 multi-family residential zone	2.8			CC 10/22/13
G17	P12-0336	West side of Chicago Ave bet University Ave & 12th St	City initiated Rezoning for compliance with the new Housing Element (2006-2014); From Commercial to Mixed Use Urban (MU-U-SP) in the University Avenue Specific Plan	17.8			CC 10/22/13
G18	P12-0336	9 parcels at SE cor of Duncan Ave & Van Buren Blvd	City initiated Rezoning for compliance with the new Housing Element (2006-2014); From Single Family Residential to Multiple Family Residential & Airport Protection Compatibility Zone E Overlay (R-3-1500-AP-E)	5.6			CC 10/22/13
G19	P13-0263 P13-0264	18171 Van Buren Blvd	GPA from VLDR to C; RZ from R-1-1/2 Acre-SP to CR-SP; to facilitate the development of a retail commercial center on 2 contiguous parcels	7.17			4/21/2014
G20	P13-0553 P13-0554 P13-0583 P14-0065	5940 and 5980 Sycamore Canyon	GP, SP, RZ, DR; 275-unit multiple-family residential development, including common and private amenities and covered and uncovered surface parking, on two contiguous parcels	10.26			CC 03/17/2015
G21	P14-0600, P14-0601, P14-0602 P15-0044	Southeasterly corner of Mt. Baldy Drive and San Gorgonio Drive	RZ, DR, VR, VC; consideration of 1) an Amendment to the Municipal Code (Title 19) to rezone approximately 6.2 acres from the CR-S-2-SP – Commercial Retail, Height of Building (two stories), and Specific Plan (Sycamore Canyon Business Park) Overlay Zones to the BMP-S-2-SP – Business and Manufacturing Park, Height of Building (two stories), and Specific Plan (Sycamore Canyon Business Park) Overlay Zones; 2) for Design Review of the plot plan and building elevations related to the construction of an approximately 121,390 square foot multiple tenant industrial building as associated surface parking and landscaping; 3) for a variance to permit a building to encroach into the required 40-foot front yard setback; 4) vacation of excess right-of-way beyond the terminus of the existing cul-de-sac on Mt. Baldy Drive	6.2			

Conditional Use Permits

City of Riverside Cumulative Projects List (2/13/14)

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G22	P13-0956 P13-0959 P13-0960 P13-0963 P13-0964 P13-0965 P13-0966	Southeast corner of Palmyrita Avenue and Michigan Avenue, and north of Sugarloaf Mountain	GP, SP, VC, TM, DR, MCUP, VR; Consideration of a phased development consisting of three (3) industrial buildings totaling approximately 1,461,449 square feet of Industrial Warehouse Distribution space	72.5			
E1	P06-1237	Fourteenth St and Brockton Av	EIR and Design Review; Jacobs Medical Office (Formerly Chinatown Site)	4.6	65,281		CC 10/7/08
E2	P09-0600 P09-0601	5200 Van Buren Blvd	Environmental Impact Report (EIR) certifying that the adopted resolution for the Wal-Mart Expansion is pursuant of the County of Riverside Land Use Compatability Plan	13.73	125,857 (existing bldg) 22,272 (addition)		CC 1/24/12
V1	P08-0175	along easterly side of Sycamore Canyon Blvd, bet. Cottonwood Av and Alessandro Blvd	Vacation of approximately 5,822 square feet of unused right-of-way	5,822.00			CC 6/3/08
V2	P08-0329	Commerce St bet. Mission Inn and University Aves	Summary vacation of a portion of Commerce Street for future development	17,424.00			CC 7/22/08
V3	P08-0144	portion of Chicago Av and Ferrari Dr	Vacation of Street from La Fayette and Ferrari Drive	94,525.20			CC 9/23/08
V4	P08-0474 P08-0475	Intersection at Bushness Av, La Sierra Av, Hole Av, Pierce St	Traffic Pattern Modification at Five Points Intersection; Designation of Five Points as City Historic Landmark	N/A			CC 10/7/08
V5	P08-0549	Intersection at Antioch and Hillside Aves	Traffic Pattern Modification at Antioch at Hillside	43,560.00			CC 10/28/08
V6	P08-0303 P08-0304 P08-0306	Santa Ana Ave between Jack B. Clarke Way and Ninth St; Jack B. Clarke Way between Santa Fe Avenue and the Railroad; Ninth St between Vine St and the Railroad; and 3141 Ninth St (packinghouse)	Street vacation of approximately 11,000 square feet of Santa Ana Ave between Jack B. Clarke Way and Ninth St; approximately 2,760 square feet of Jack B. Clarke Way between Santa Fe Avenue and the Railroad; and approximately 20,000 square feet of Ninth St between Vine St and the Railroad; Variance for parking; Certificate of Appropriateness to rehabilitate and adaptively re-use existing 2-story 20,212 sq.ft. historic packing house as an office; demolition of existing 6,637 sq.ft. rear addition constructed in 1939, in conjunction with proposed 3-story, 19,625 sq.ft. office addition	33,760.00			CC 11/18/2008; CHB 7/16/08

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
V7	P09-0130	ROW adjacent to 5236 Olivewood Av bet. Panorama and Boxwood Roads	Summary Vacation of portion of Olivewood Ave	18,982.51			CC 5/5/09
V8	P08-0749	ROW adjacent to 6692 Indiana Ave; ROW adacent to 3355 Jane St bet. Indiana Av and BNSF Railroad	Summary Vacation of portion of Indiana Ave and Jane St	12,465.00			CC 5/26/09
V9	P09-0205 P09-0206	Dufferin Av from Stewart St to McAllister Pkwy	Street Vacation and Traffic Pattern Modification to construct knuckle at Dufferin Ave and Steward St and to prohibit vehicle access at Dufferin Ave from McAllister Parkway	23,846.06			CC 7/14/09
V10	P09-0378	Monroe St southwest of California Ave	Summary vaction of approximately 0.213 acres of unimproved right of way along Monroe Street, southwesterly of California	9,278.28			CC 7/28/09
V11	P09-0217	alley between 4290, 4310 Oakwood Pl and 4291, 4319 Rosewood Pl	Vacation of an alley	4,440.00			CC 8/25/09
V12	P09-0505	portion of cul-de-sac bulb adjacent to 5696-5698 Peggy Ln, westerly of Chadbourne Ave	Summary vacation of approximately 4,425 square feet of unused right-of-way located at the westerly terminus of Peggy Lane	4,425.00			CC 10/6/09
V13	P09-0199	south side of Ninth street, between Orange and Lemon Streets	Vacate an existing alleyway to become a part of an alley port entry in conjunction with a 10-story Office Bldg at 3940-3998 Orange St	2,752.00			CC 1/5/10
V14	P10-0001	Stub portion of Ninth St bet. Lime St and 91 Freeway	Vacate a portion of Ninth St; located between Lime Street and Highway 91	6,600.00			CC 5/25/10
V15	P09-0135	Tenth and Eleventh Streets bet. Lime St and	Close remaining portion of Tenth and Eleventh Streets				CC 10/5/10
V16	P10-0667	alley bet. Sixth St, Mission Inn Ave, Main St, and Market St	Summary vacation of approximately 1,605 square feet of excess right-of-way	1,605.00			CC 1/18/11
V17	P10-0799	end of Payton Ave	Summary vacation of the remaining of unused public Right of Way for 5894 Payton Ave	53,654.43			CC 3/22/11
V18	P09-0810	Eucalyptus St, south of Vasquez St	Vacate a portion of Eucalyptus, southerly of Vasquez Street	4,286.74			CPC 5/5/11
V19	P11-0011	21 ft. of ROW along Palm Ave at Rubidoux Ave	Summary vacation of approximately 2,722 square feet of excess right-of-way located at the intersection of Palm Ave and Rubdioux Ave	8,968.00			CC 6/14/11

Conditional Use Permits

City of Riverside Cumulative Projects List (2/13/14)

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
V20	P11-0199	Fairmount Blvd bet. Whittier Pl and University Ave	3892 University Ave, 3902 University Ave, 3892 University Ave, 3907 University Ave, 3907 Whittier Pl; Vacation summary of a portion of Fairmount Blvd. between Whittier Pl. anc University Ave. to construct the Riverside Community College Culinary Institute with an underground parking structure	15,566.00			CC 7/26/11
V21	P11-0502	Magnolia Ave adjacent to Palm Shadows Apartments (3697 Monroe St) bet. Adams and Monroe Streets	Summary vacation to vacate an excess right-of-way along Magnolia Ave in the Magnolia Avenue Specific Plan	679,543.00			CC 11/8/11
V22	P11-0599	alley south of the western terminus at 3716 Elizabeth St and north of the Union Pacific Railroad ROW	Summary Vacation of an approximately 25-foot wide by 149-foot long segment of public alley in the Magnolia Avenue Specific Plan	7,043.00			CC 12/6/11
V23	P09-0794	alley in block surrounded by Mission Inn Ave, Sixth St, Market St, and Fairmount Blvd	Summary vacation of a 15 foot wide alley	5,400.00			CC 1/17/12
V24	P11-0601	alley bet. Seventh St and University Ave, easterly Mesa St	1764 Seventh St; Summary vacation approximately 120-foot by five-foot wide portion of public alley, located between Seventh Street and University Avenue, easterly of Mesa Street, adjacent to the southerly property lines of 1764 and 1774 Seventh Street. The approximately 600 square-foot area to be vacated can be considered excess right-of-way and is no longer needed for street purposes	600.00			CC 2/7/12
V25	P12-0127	3649 Mission Inn Ave	Summary Vacation of approximately 116-foot by 19-foot segment of excess right-of-way siutated on the easterly side of Main Street and Southerly of Sixth Street with the Downtown Specific Plan Raincross District Commercial Retail Zone	2,204.00			CC 5/1/12
V26	P12-0136	6900 Jurupa Ave	Summary Vacation of approximately 6,937 square feet of unused public right-of-way and authorize the preparation of a Certificate of Compliance to incorporate the vacated area into the property of 6900 Jurupa Avenue within the Business Manufacturing Park Zone	6,937.00			CC 5/15/12
V27	P11-0543 P10-0762 P10-0763	Magnolia Ave adjacent to 7431 and 7451 Magnolia Ave	Summary vacation of a segment of public right-of-way along the frontage of 7431 and 7451 Magnolia Ave, which is developed with an apartment complex and related parking areas in the Magnolia Avenue Specific Plan	51,179.00			CC 5/22/12

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
V28	P12-0066	4900 Golden Ave	Summary Vacation of approximately 11-foot wide by 822-foot long segment of excess public right-of-way on the westerly side of Golden Ave and an approximately 12-foot wide by 766-foot long segment of public right-of-way on the northerly side of Pierce Street located within the Residential Estate Zone	18,234.00			CC 9/11/12
V29	P13-0657	NW cor Van Buren Blvd & Magnolia Ave	Summary Vacation of excess right of way				CC 10/22/13
V30	P13-0728	Stacy Ct bet. Paige Dr & Columbia Ave	Summary Vacation				CC 10/22/13
V31	P12-0309	Monte Vista & Pollard	Vacation of approximately .5-acre of public right-of-way, consisting of portions of Monte Vista Drive and Pollard Way, adjacent to the properties at 739 and 778 Monte Vista Drive for a proposed 88-unit apartment project				CPC 03/19/15
V32	P14-0149	Diana Avenue between Adams and Monroe Streets	Vacation of Diana Avenue between Adams and Monroe Streets, including Wilma Court and Emily Court in their entirety, the area to be vacated is approximately 3.4 acres, in Ward 5	3.40			
D1	P08-0701 P08-0702	4393 Tyler St	DR, Rezoning from R-1-7000 to Office; Remodel and reuse of multi-family buildings as offices	0.49	4,950	-	CC 4/21/09
D2	P10-0406 P10-0407 P10-0408	11500 Magnolia Ave	Site Plan Review, Design Review, Variance; Apartment Complex	7.60	-	168	CC 1/11/11
D3	P12-0184 P12-0185 P12-0187	9241 and 9265 Audrey Ave	General Plan Amendment to change property from MDR to C; Rezoning from R-1-7000 to C; and Design review to facilitate the construction of a multiple tenant retail building on a two parcel site, known as the Azar Plaza	0.6	6,150	-	CC 11/13/12
D4	P12-0507 P12-0508 P12-0509 P12-0510	2325 Cottonwood Av	DR, VR LLA, LS/I; 235,741 sqft addition to an existing 400,580 sqft warehouse/ industrial building	9.5 project site	636,321	-	ZA 12/7/12
D5	P12-0717	1710 Main Street	Family Dollar store	1.01	8,039	-	ZA 3/11/13
D6	P12-0741 P12-0743 P14-0238	3545 Central Ave	Riverside Plaza renovations; Pad 3 renovations to consist of 7 tenant spaces with outdoor dining	35.00	-	-	ZA 6/7/13; ZA 7/9/14
D7	P13-0038 P13-0441	3683 Adams St	Rezoning property from Single Family Residential to Mixed Use Neighborhood Zone in the Magnolia Avenue Specific Plan; Design Review for conversion of an existing single family residence into a live/work unit	0.32	1237 (existing residence)	1	CC 8/27/13
D8	P12-0729 P12-0727	4015 Madison St	RZ/DR; Rezoning from R-1-7000 to O-S-1 to accommodate the expansion of parking lot for existing medical office	0.26	-	-	CC 9/24/13
D9	P13-0198 P13-0199 P13-0200 P13-0201	5731, 5741, 5761, & 5797 Pickler St	GP, RZ, COA, PPE; Proposal for rehabilitation of Camp Anza Officer's Club and development of affordable housing with on-site support services for disabled veterans and their families; Rezoning from single family to multi-family (apartment units)	2.14	-	30	CC 11/19/13

4.1-44

R-55 R-56 R-57 R-58 R-60 R-9 R-61

Conditional Use Permits

City of Riverside Cumulative Projects List (2/13/14)

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
D10	P13-0501 P13-0502	3705 Tyler St	PPE, DR; Demolish existing tire building and construct new 2-Tenant Restaurant building within existing shopping center	10.80	6,000	-	CC 12/3/13
D11	P13-0916 P13-0917 P13-0918 P13-0919	10403-10485 Magnolia Ave	DR, RZ, SitePlan Review, VR; Time extension for P05-1521, P08-0706, P08-0740, P08-0794; Magnolia Square mixed use development, Parcel map 36112	16.6	71,211 commercial/retail	315 multi-family; 3 live/work	12/16/2013
D12	P13-0247 P13-0248 P13-0249 P13-0251 P13-0252	9565 Rudicill St	Apartment complex on 4 lots (to be consolidated); Site Plan Review, DR, GPA from B/OP to HDR, Rezone from BMP-SP to R-4-SP, SPA (Citrus Business Park Specific Plan)	4.05	-	102	CC 8/12/14???
D13	P13-0607 P13-0608 P13-0609 P13-0854	SE cor Sycamore Canyon Blvd & Box Springs Rd	Multi-tenant industrial building; GPA, RZ, DR, SPA to remove site from Sycamore Highlands SP and add it to Sycamore Canyon Business Park SP		171,616	-	CC 5/13/14
D14	P13-0207 P13-0208 P13-0209 P13-0210 P13-0211	4445 Magnolia Ave	EIR, GPA, RZ, DR, SP; Riverside Community Hospital proposed expansion				CC 5/20/14
D15	P13-0324 P13-0325 P13-0326 P13-0327	Northerly side of Indiana Ave, Easterly of La Sierra Ave, adjacent to La Sierra Metrolink station	Transit-oriented residential development; Site Plan Review, DR, Rezone from R-1-7000-SP to MU-U-SP, SPA (Riverwalk Vista Specific Plan)	3.7	-	187	CPC 5/8/14
D16	P13-0563 P13-0564	8069 Indiana Ave	DR,VAC; construction of 7,373 sqft addition to facilitate vehicle service and parts sales; Singh Subaru; vacation of Susan Street between Indiana Ave & SR91		7,373		CC 6/3/14
D17	P14-0318	3502 through 3520 Tyler St	PPE, DR; Construct a 10,000 sqft restaurant building; add façade improvements to an existing retail building		10,000		ZA 7/11/14
D18	P14-0183	3105 Market St	DR; Centerpointe Apartments	2.51		146	1/26/2015
A1	P14-0246	NW cor of Sycamore Canyon Blvd & Central Ave	Annexation of a vacant site to facilitate development of retail commercial shopping center	9.4			CC 7/8/14

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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APPENDIX 5.1:

E+P CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	557	10	176	206	0	0	0	0	427	3	140
Future Volume (veh/h)	0	557	10	176	206	0	0	0	0	427	3	140
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	612	8	193	226	0				469	3	89
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1697	759	218	2268	0				519	3	466
Arrive On Green	0.00	0.47	0.47	0.24	1.00	0.00				0.29	0.29	0.29
Sat Flow, veh/h	0	3705	1615	1810	3705	0				1799	12	1615
Grp Volume(v), veh/h	0	612	8	193	226	0				472	0	89
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1810	1805	0				1810	0	1615
Q Serve(g_s), s	0.0	13.0	0.3	12.3	0.0	0.0				30.1	0.0	5.0
Cycle Q Clear(g_c), s	0.0	13.0	0.3	12.3	0.0	0.0				30.1	0.0	5.0
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	1697	759	218	2268	0				522	0	466
V/C Ratio(X)	0.00	0.36	0.01	0.88	0.10	0.00				0.90	0.00	0.19
Avail Cap(c_a), veh/h	0	1697	759	369	2268	0				679	0	606
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.98	0.98	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.3	16.9	44.7	0.0	0.0				41.1	0.0	32.2
Incr Delay (d2), s/veh	0.0	0.6	0.0	6.6	0.1	0.0				13.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.6	0.1	6.5	0.0	0.0				17.0	0.0	2.3
LnGrp Delay(d),s/veh	0.0	20.9	17.0	51.3	0.1	0.0				54.1	0.0	32.3
LnGrp LOS		C	B	D	A					D		C
Approach Vol, veh/h		620			419						561	
Approach Delay, s/veh		20.8			23.7						50.7	
Approach LOS		C			C						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	19.0	61.4		39.6		80.4		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	24.5	36.0		45.0		65.0		
Max Q Clear Time (g_c+I1), s	14.3	15.0		32.1		2.0		
Green Ext Time (p_c), s	0.2	3.3		2.5		3.6		

Intersection Summary	
HCM 2010 Ctrl Delay	32.0
HCM 2010 LOS	C

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
2: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	315	669	0	0	369	522	12	4	113	0	0	0
Future Volume (veh/h)	315	669	0	0	369	522	12	4	113	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	362	769	0	0	424	574	14	5	76			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	384	2798	0	0	1927	862	191	68	229			
Arrive On Green	0.42	1.00	0.00	0.00	0.53	0.53	0.14	0.14	0.14			
Sat Flow, veh/h	1810	3705	0	0	3705	1615	1350	482	1615			
Grp Volume(v), veh/h	362	769	0	0	424	574	19	0	76			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1615	1832	0	1615			
Q Serve(g_s), s	23.0	0.0	0.0	0.0	7.4	30.8	1.1	0.0	5.1			
Cycle Q Clear(g_c), s	23.0	0.0	0.0	0.0	7.4	30.8	1.1	0.0	5.1			
Prop In Lane	1.00		0.00	0.00		1.00	0.74		1.00			
Lane Grp Cap(c), veh/h	384	2798	0	0	1927	862	260	0	229			
V/C Ratio(X)	0.94	0.27	0.00	0.00	0.22	0.67	0.07	0.00	0.33			
Avail Cap(c_a), veh/h	535	2798	0	0	1927	862	260	0	229			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.92	0.92	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.9	0.0	0.0	0.0	14.8	20.2	44.7	0.0	46.4			
Incr Delay (d2), s/veh	17.4	0.2	0.0	0.0	0.3	4.1	0.5	0.0	3.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	13.1	0.1	0.0	0.0	3.8	14.7	0.6	0.0	2.5			
LnGrp Delay(d),s/veh	51.3	0.2	0.0	0.0	15.0	24.3	45.2	0.0	50.3			
LnGrp LOS	D	A			B	C	D		D			
Approach Vol, veh/h		1131			998			95				
Approach Delay, s/veh		16.6			20.4			49.2				
Approach LOS		B			C			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		98.0			28.9	69.1		22.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		93.0			35.5	54.0		17.0
Max Q Clear Time (g_c+I1), s		2.0			25.0	32.8		7.1
Green Ext Time (p_c), s		7.1			0.4	6.3		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

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Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	68	714	823	26	2	68
Future Vol, veh/h	68	714	823	26	2	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	83	871	1004	32	2	83

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1004	0	-	0	1605	502
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	601	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	698	-	-	-	*153	520
Stage 1	-	-	-	-	*320	-
Stage 2	-	-	-	-	*756	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	698	-	-	-	*118	520
Mov Cap-2 Maneuver	-	-	-	-	*118	-
Stage 1	-	-	-	-	*320	-
Stage 2	-	-	-	-	*582	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	14.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	698	-	-	-	474
HCM Lane V/C Ratio	0.119	-	-	-	0.18
HCM Control Delay (s)	10.9	1	-	-	14.3
HCM Lane LOS	B	A	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

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HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)

4: Patterson Avenue & Harley Knox Boulevard

1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	631	11	2	733	14	79	2	9	3	4	6
Future Volume (veh/h)	9	631	11	2	733	14	79	2	9	3	4	6
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	770	11	2	894	17	96	2	6	4	5	5
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	24	1575	704	5	1536	687	597	14	33	329	392	635
Arrive On Green	0.01	0.44	0.44	0.00	0.43	0.43	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1810	3610	1615	1810	3610	1615	1323	36	83	689	996	1615
Grp Volume(v), veh/h	11	770	11	2	894	17	104	0	0	9	0	5
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1805	1615	1442	0	0	1685	0	1615
Q Serve(g_s), s	0.5	13.8	0.3	0.1	17.0	0.6	4.0	0.0	0.0	0.0	0.0	0.2
Cycle Q Clear(g_c), s	0.5	13.8	0.3	0.1	17.0	0.6	4.3	0.0	0.0	0.3	0.0	0.2
Prop In Lane	1.00		1.00	1.00		1.00	0.92		0.06	0.44		1.00
Lane Grp Cap(c), veh/h	24	1575	704	5	1536	687	644	0	0	720	0	635
V/C Ratio(X)	0.46	0.49	0.02	0.41	0.58	0.02	0.16	0.00	0.00	0.01	0.00	0.01
Avail Cap(c_a), veh/h	207	1575	704	107	1536	687	644	0	0	720	0	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.1	18.2	14.4	44.8	19.7	15.0	17.9	0.0	0.0	16.6	0.0	16.6
Incr Delay (d2), s/veh	4.9	1.1	0.0	18.9	1.6	0.1	0.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	7.1	0.2	0.1	8.8	0.3	1.8	0.0	0.0	0.1	0.0	0.1
LnGrp Delay(d),s/veh	49.0	19.3	14.4	63.8	21.4	15.1	18.4	0.0	0.0	16.7	0.0	16.6
LnGrp LOS	D	B	B	E	C	B	B			B		B
Approach Vol, veh/h		792			913			104			14	
Approach Delay, s/veh		19.6			21.3			18.4			16.7	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.4	45.1		40.5	5.4	44.1		40.5
Change Period (Y+Rc), s	* 4.2	5.8		5.1	* 4.2	5.8		5.1
Max Green Setting (Gmax), s	* 5.3	34.2		35.4	* 10	29.2		35.4
Max Q Clear Time (g_c+I1), s	2.1	15.8		2.3	2.5	19.0		6.3
Green Ext Time (p_c), s	0.0	7.3		0.4	0.0	5.3		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	20.4
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	634	2	0	747	0	3
Future Vol, veh/h	634	2	0	747	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	737	2	0	869	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	740	0	1085	370
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	347	-
Critical Hdwy	-	-	5.3	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	-	-	3.1	-	3.8	3.9
Pot Cap-1 Maneuver	-	-	845	-	*286	*800
Stage 1	-	-	-	-	*661	-
Stage 2	-	-	-	-	*780	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	845	-	*286	*800
Mov Cap-2 Maneuver	-	-	-	-	*286	-
Stage 1	-	-	-	-	*661	-
Stage 2	-	-	-	-	*780	-

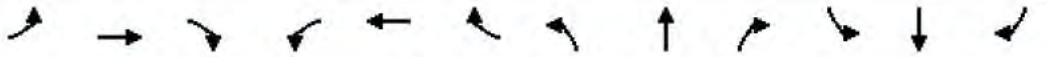
Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	800	-	-	845	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	9.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)
6: Indian Street & Nandina Avenue — 1/6/2016



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	22	112	58	15	5	73	214	36	6	63	4
Future Volume (veh/h)	1	22	112	58	15	5	73	214	36	6	63	4
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	26	81	69	18	5	87	255	36	7	75	4
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	228	294	89	238	202	112	1803	252	16	1789	95
Arrive On Green	0.04	0.12	0.12	0.05	0.13	0.13	0.06	0.57	0.57	0.01	0.51	0.51
Sat Flow, veh/h	1810	1900	1615	1810	1900	1611	1810	3182	444	1810	3484	184
Grp Volume(v), veh/h	1	26	81	69	18	5	87	143	148	7	39	40
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1611	1810	1805	1821	1810	1805	1863
Q Serve(g_s), s	0.0	1.0	2.5	3.0	0.7	0.2	3.8	3.0	3.1	0.3	0.8	0.9
Cycle Q Clear(g_c), s	0.0	1.0	2.5	3.0	0.7	0.2	3.8	3.0	3.1	0.3	0.8	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.10
Lane Grp Cap(c), veh/h	80	228	294	89	238	202	112	1023	1032	16	927	957
V/C Ratio(X)	0.01	0.11	0.28	0.77	0.08	0.02	0.77	0.14	0.14	0.43	0.04	0.04
Avail Cap(c_a), veh/h	120	570	585	131	582	493	176	1023	1032	120	927	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	31.4	15.1	37.6	30.9	22.0	37.0	8.2	8.2	39.4	9.7	9.7
Incr Delay (d2), s/veh	0.0	0.1	0.2	8.2	0.0	0.0	4.2	0.3	0.3	6.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.5	1.1	1.7	0.4	0.1	2.0	1.6	1.6	0.2	0.4	0.5
LnGrp Delay(d),s/veh	36.6	31.5	15.3	45.8	30.9	22.0	41.2	8.5	8.5	45.9	9.8	9.8
LnGrp LOS	D	C	B	D	C	C	D	A	A	D	A	A
Approach Vol, veh/h		108			92			378			86	
Approach Delay, s/veh		19.4			41.6			16.0			12.7	
Approach LOS		B			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	51.5	8.1	15.4	9.2	47.3	7.7	15.8
Change Period (Y+Rc), s	* 4.2	6.2	4.2	* 5.8	* 4.2	6.2	4.2	* 5.8
Max Green Setting (Gmax), s	* 5.3	24.5	5.8	* 24	* 7.8	22.0	5.3	* 25
Max Q Clear Time (g_c+I1), s	2.3	5.1	5.0	4.5	5.8	2.9	2.0	2.7
Green Ext Time (p_c), s	0.0	1.0	0.0	0.2	0.0	1.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	25	5	333	35	1	242
Future Vol, veh/h	25	5	333	35	1	242
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	210	0	-	-	120	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	30	6	396	42	1	288

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	707	417	0	0	438	0
Stage 1	417	-	-	-	-	-
Stage 2	290	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	415	640	-	-	1133	-
Stage 1	669	-	-	-	-	-
Stage 2	808	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	414	640	-	-	1133	-
Mov Cap-2 Maneuver	519	-	-	-	-	-
Stage 1	669	-	-	-	-	-
Stage 2	807	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	519	640	1133	-
HCM Lane V/C Ratio	-	-	0.057	0.009	0.001	-
HCM Control Delay (s)	-	-	12.4	10.7	8.2	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	0	-

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	7	11	31	360	246	20
Future Vol, veh/h	7	11	31	360	246	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	12	34	391	267	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	726	267	267	0	-	0
Stage 1	267	-	-	-	-	-
Stage 2	459	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	403	870	1334	-	-	-
Stage 1	831	-	-	-	-	-
Stage 2	641	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	392	870	1334	-	-	-
Mov Cap-2 Maneuver	497	-	-	-	-	-
Stage 1	831	-	-	-	-	-
Stage 2	625	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1334	-	673	-	-
HCM Lane V/C Ratio	0.025	-	0.029	-	-
HCM Control Delay (s)	7.8	-	10.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	2	20	63	389	254	3
Future Vol, veh/h	2	20	63	389	254	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	22	68	423	276	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	836	276	276	0	-	0
Stage 1	276	-	-	-	-	-
Stage 2	560	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*339	*889	*1334	-	-	-
Stage 1	*839	-	-	-	-	-
Stage 2	*576	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*322	*889	*1334	-	-	-
Mov Cap-2 Maneuver	*437	-	-	-	-	-
Stage 1	*839	-	-	-	-	-
Stage 2	*547	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	1.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 1334	-	813	-	-
HCM Lane V/C Ratio	0.051	-	0.029	-	-
HCM Control Delay (s)	7.8	-	9.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)

10: Indian Street & Harley Knox Boulevard — 6/24/2016



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	301	45	15	446	33	64	148	16	10	61	200
Future Volume (veh/h)	297	301	45	15	446	33	64	148	16	10	61	200
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	323	327	41	16	485	29	70	161	3	11	66	185
Adj No. of Lanes	1	3	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	662	3610	1124	32	1661	98	150	1256	562	78	614	549
Arrive On Green	0.37	0.70	0.70	0.02	0.33	0.33	0.04	0.35	0.35	0.04	0.34	0.34
Sat Flow, veh/h	1810	5187	1615	1810	5002	296	3510	3610	1615	1810	1805	1615
Grp Volume(v), veh/h	323	327	41	16	334	180	70	161	3	11	66	185
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1840	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	13.8	2.0	1.2	0.9	7.1	7.2	1.9	3.0	0.2	0.6	2.5	8.5
Cycle Q Clear(g_c), s	13.8	2.0	1.2	0.9	7.1	7.2	1.9	3.0	0.2	0.6	2.5	8.5
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	662	3610	1124	32	1148	611	150	1256	562	78	614	549
V/C Ratio(X)	0.49	0.09	0.04	0.49	0.29	0.29	0.47	0.13	0.01	0.14	0.11	0.34
Avail Cap(c_a), veh/h	662	3610	1124	90	1148	611	176	1256	562	90	614	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	4.9	10.9	48.7	24.7	24.7	46.7	22.2	35.2	46.1	22.6	24.6
Incr Delay (d2), s/veh	0.2	0.0	0.1	4.2	0.6	1.2	0.8	0.2	0.0	0.3	0.4	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	1.0	0.6	0.5	3.5	3.9	1.0	1.6	0.1	0.3	1.3	4.1
LnGrp Delay(d),s/veh	24.7	5.0	11.0	52.9	25.3	26.0	47.6	22.5	35.3	46.4	23.0	26.3
LnGrp LOS	C	A	B	D	C	C	D	C	D	D	C	C
Approach Vol, veh/h		691			530			234			262	
Approach Delay, s/veh		14.5			26.4			30.1			26.3	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	76.3	8.5	40.2	43.3	39.0	8.5	40.2
Change Period (Y+Rc), s	* 4.2	5.8	4.2	* 6.2	5.8	* 5.8	4.2	* 5.4
Max Green Setting (Gmax), s	* 5	35.6	5.0	* 34	7.4	* 33	5.0	* 35
Max Q Clear Time (g_c+I1), s	2.9	4.0	3.9	10.5	15.8	9.2	2.6	5.0
Green Ext Time (p_c), s	0.0	1.7	0.0	0.8	0.0	1.8	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	22.1
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	385	33	204	134	0	0	0	0	404	3	182
Future Volume (veh/h)	0	385	33	204	134	0	0	0	0	404	3	182
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	438	28	232	152	0				459	3	134
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1628	728	258	2279	0				513	3	461
Arrive On Green	0.00	0.45	0.45	0.24	1.00	0.00				0.29	0.29	0.29
Sat Flow, veh/h	0	3705	1615	1810	3705	0				1798	12	1615
Grp Volume(v), veh/h	0	438	28	232	152	0				462	0	134
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1810	1805	0				1810	0	1615
Q Serve(g_s), s	0.0	9.1	1.2	14.9	0.0	0.0				29.4	0.0	7.8
Cycle Q Clear(g_c), s	0.0	9.1	1.2	14.9	0.0	0.0				29.4	0.0	7.8
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	1628	728	258	2279	0				517	0	461
V/C Ratio(X)	0.00	0.27	0.04	0.90	0.07	0.00				0.89	0.00	0.29
Avail Cap(c_a), veh/h	0	1628	728	430	2279	0				724	0	646
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.99	0.99	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.6	18.4	44.8	0.0	0.0				41.1	0.0	33.4
Incr Delay (d2), s/veh	0.0	0.4	0.1	7.9	0.1	0.0				10.5	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.6	0.5	8.0	0.0	0.0				16.1	0.0	3.5
LnGrp Delay(d),s/veh	0.0	21.0	18.5	52.8	0.1	0.0				51.6	0.0	33.8
LnGrp LOS		C	B	D	A					D		C
Approach Vol, veh/h		466			384						596	
Approach Delay, s/veh		20.8			31.9						47.6	
Approach LOS		C			C						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	21.6	59.1		39.2		80.8		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	28.5	29.0		48.0		62.0		
Max Q Clear Time (g_c+I1), s	16.9	11.1		31.4		2.0		
Green Ext Time (p_c), s	0.2	2.2		2.9		2.4		

Intersection Summary	
HCM 2010 Ctrl Delay	34.8
HCM 2010 LOS	C

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
2: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	560	0	0	330	558	8	0	192	0	0	0
Future Volume (veh/h)	228	560	0	0	330	558	8	0	192	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	271	667	0	0	393	653	10	0	61			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	295	2677	0	0	1983	876	317	0	283			
Arrive On Green	0.33	1.00	0.00	0.00	0.55	0.55	0.17	0.00	0.17			
Sat Flow, veh/h	1810	3705	0	0	3705	1595	1810	0	1615			
Grp Volume(v), veh/h	271	667	0	0	393	653	10	0	61			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1595	1810	0	1615			
Q Serve(g_s), s	17.3	0.0	0.0	0.0	6.6	37.5	0.6	0.0	3.9			
Cycle Q Clear(g_c), s	17.3	0.0	0.0	0.0	6.6	37.5	0.6	0.0	3.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	295	2677	0	0	1983	876	317	0	283			
V/C Ratio(X)	0.92	0.25	0.00	0.00	0.20	0.75	0.03	0.00	0.22			
Avail Cap(c_a), veh/h	490	2677	0	0	1983	876	317	0	283			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.96	0.96	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.6	0.0	0.0	0.0	13.7	20.6	41.1	0.0	42.4			
Incr Delay (d2), s/veh	9.3	0.2	0.0	0.0	0.2	5.7	0.2	0.0	1.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	9.3	0.1	0.0	0.0	3.3	17.7	0.3	0.0	1.9			
LnGrp Delay(d),s/veh	49.0	0.2	0.0	0.0	13.9	26.4	41.3	0.0	44.2			
LnGrp LOS	D	A			B	C	D		D			
Approach Vol, veh/h		938			1046			71				
Approach Delay, s/veh		14.3			21.7			43.8				
Approach LOS		B			C			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		94.0			23.1	70.9		26.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		89.0			32.5	53.0		21.0
Max Q Clear Time (g_c+I1), s		2.0			19.3	39.5		5.9
Green Ext Time (p_c), s		6.5			0.3	5.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	20	732	802	6	14	85
Future Vol, veh/h	20	732	802	6	14	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	832	911	7	16	97

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	911	0	-	0	1372	456
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	461	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	756	-	-	-	*244	557
Stage 1	-	-	-	-	*357	-
Stage 2	-	-	-	-	*756	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	756	-	-	-	*230	557
Mov Cap-2 Maneuver	-	-	-	-	*230	-
Stage 1	-	-	-	-	*357	-
Stage 2	-	-	-	-	*713	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	15.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	756	-	-	-	464
HCM Lane V/C Ratio	0.03	-	-	-	0.242
HCM Control Delay (s)	9.9	0.3	-	-	15.2
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)

4: Patterson Avenue & Harley Knox Boulevard

1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	689	24	4	736	3	33	4	7	6	2	13
Future Volume (veh/h)	3	689	24	4	736	3	33	4	7	6	2	13
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	811	28	5	866	3	39	5	3	7	2	8
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	1459	653	12	1463	655	576	72	39	555	150	665
Arrive On Green	0.01	0.40	0.40	0.01	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1810	3610	1615	1810	3610	1615	1211	176	95	1164	364	1615
Grp Volume(v), veh/h	4	811	28	5	866	3	47	0	0	9	0	8
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1805	1615	1482	0	0	1528	0	1615
Q Serve(g_s), s	0.2	14.7	0.9	0.2	16.0	0.1	1.1	0.0	0.0	0.0	0.0	0.2
Cycle Q Clear(g_c), s	0.2	14.7	0.9	0.2	16.0	0.1	1.5	0.0	0.0	0.2	0.0	0.2
Prop In Lane	1.00		1.00	1.00		1.00	0.83		0.06	0.78		1.00
Lane Grp Cap(c), veh/h	10	1459	653	12	1463	655	688	0	0	704	0	665
V/C Ratio(X)	0.42	0.56	0.04	0.42	0.59	0.00	0.07	0.00	0.00	0.01	0.00	0.01
Avail Cap(c_a), veh/h	106	1459	653	106	1463	655	688	0	0	704	0	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.1	19.5	15.4	42.1	19.8	15.1	15.1	0.0	0.0	14.8	0.0	14.8
Incr Delay (d2), s/veh	10.4	1.5	0.1	8.6	1.8	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	7.6	0.4	0.1	8.3	0.0	0.7	0.0	0.0	0.1	0.0	0.1
LnGrp Delay(d),s/veh	52.5	21.0	15.5	50.7	21.5	15.1	15.3	0.0	0.0	14.8	0.0	14.8
LnGrp LOS	D	C	B	D	C	B	B			B		B
Approach Vol, veh/h		843			874			47			17	
Approach Delay, s/veh		21.0			21.7			15.3			14.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.8	40.1		40.1	4.7	40.2		40.1
Change Period (Y+Rc), s	* 4.2	5.8		5.1	* 4.2	5.8		5.1
Max Green Setting (Gmax), s	* 5	29.9		35.0	* 5	29.9		35.0
Max Q Clear Time (g_c+I1), s	2.2	16.7		2.2	2.2	18.0		3.5
Green Ext Time (p_c), s	0.0	6.3		0.2	0.0	5.9		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	685	2	0	728	0	3
Future Vol, veh/h	685	2	0	728	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	787	2	0	837	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	790	0	1124	395
Stage 1	-	-	-	-	789	-
Stage 2	-	-	-	-	335	-
Critical Hdwy	-	-	5.3	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	-	-	3.1	-	3.8	3.9
Pot Cap-1 Maneuver	-	-	821	-	*273	*793
Stage 1	-	-	-	-	*638	-
Stage 2	-	-	-	-	*795	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	821	-	*273	*793
Mov Cap-2 Maneuver	-	-	-	-	*273	-
Stage 1	-	-	-	-	*638	-
Stage 2	-	-	-	-	*795	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.6
HCM LOS			A

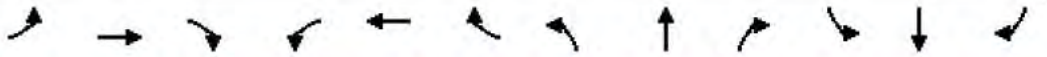
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	793	-	-	821	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	9.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)

6: Indian Street & Nandina Avenue — 1/6/2016



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	80	252	98	24	33	96	276	59	64	222	56
Future Volume (veh/h)	17	80	252	98	24	33	96	276	59	64	222	56
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	105	162	129	32	10	126	363	44	84	292	42
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	44	349	581	154	464	378	319	1350	162	108	873	124
Arrive On Green	0.02	0.18	0.18	0.09	0.24	0.24	0.18	0.42	0.42	0.06	0.28	0.28
Sat Flow, veh/h	1810	1900	1611	1810	1900	1546	1810	3240	390	1810	3173	452
Grp Volume(v), veh/h	22	105	162	129	32	10	126	201	206	84	165	169
Grp Sat Flow(s),veh/h/ln	1810	1900	1611	1810	1900	1546	1810	1805	1825	1810	1805	1819
Q Serve(g_s), s	1.0	3.8	1.2	5.6	1.0	0.4	4.9	5.8	5.9	3.7	5.8	5.9
Cycle Q Clear(g_c), s	1.0	3.8	1.2	5.6	1.0	0.4	4.9	5.8	5.9	3.7	5.8	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		0.25
Lane Grp Cap(c), veh/h	44	349	581	154	464	378	319	752	760	108	496	500
V/C Ratio(X)	0.50	0.30	0.28	0.84	0.07	0.03	0.39	0.27	0.27	0.78	0.33	0.34
Avail Cap(c_a), veh/h	120	570	768	154	606	493	319	752	760	143	496	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	28.2	6.4	36.1	23.2	23.0	29.2	15.3	15.3	37.1	23.1	23.2
Incr Delay (d2), s/veh	3.3	0.2	0.1	30.2	0.0	0.0	0.3	0.9	0.9	12.5	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.0	1.4	4.1	0.5	0.2	2.5	3.1	3.2	2.2	3.1	3.2
LnGrp Delay(d),s/veh	41.9	28.4	6.5	66.3	23.3	23.0	29.5	16.2	16.2	49.6	24.9	25.0
LnGrp LOS	D	C	A	E	C	C	C	B	B	D	C	C
Approach Vol, veh/h		289			171			533			418	
Approach Delay, s/veh		17.1			55.7			19.3			29.9	
Approach LOS		B			E			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	39.5	11.0	20.5	20.3	28.2	6.1	25.4
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	6.2	* 6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 6.3	22.5	* 6.8	24.0	6.8	* 22	* 5.3	25.5
Max Q Clear Time (g_c+I1), s	5.7	7.9	7.6	5.8	6.9	7.9	3.0	3.0
Green Ext Time (p_c), s	0.0	1.2	0.0	0.6	0.0	0.8	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	38	13	441	47	15	508
Future Vol, veh/h	38	13	441	47	15	508
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	210	0	-	-	120	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	49	17	573	61	19	660

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1302	603	0	0	634	0
Stage 1	603	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	133	503	-	-	959	-
Stage 1	550	-	-	-	-	-
Stage 2	511	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	131	503	-	-	959	-
Mov Cap-2 Maneuver	299	-	-	-	-	-
Stage 1	550	-	-	-	-	-
Stage 2	500	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.6	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	299	503	959	-
HCM Lane V/C Ratio	-	-	0.165	0.034	0.02	-
HCM Control Delay (s)	-	-	19.4	12.4	8.8	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.1	0.1	-

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	18	28	14	470	537	9
Future Vol, veh/h	18	28	14	470	537	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	20	30	15	511	584	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1125	584	584	0	-	0
Stage 1	584	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*193	*657	*985	-	-	-
Stage 1	*619	-	-	-	-	-
Stage 2	*588	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*190	*657	*985	-	-	-
Mov Cap-2 Maneuver	*360	-	-	-	-	-
Stage 1	*619	-	-	-	-	-
Stage 2	*579	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.1	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 985	-	497	-	-
HCM Lane V/C Ratio	0.015	-	0.101	-	-
HCM Control Delay (s)	8.7	-	13.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	6	58	31	478	563	2
Future Vol, veh/h	6	58	31	478	563	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	63	34	520	612	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1199	612	612	0	-	0
Stage 1	612	-	-	-	-	-
Stage 2	587	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*161	*618	*927	-	-	-
Stage 1	*583	-	-	-	-	-
Stage 2	*560	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*155	*618	*927	-	-	-
Mov Cap-2 Maneuver	*326	-	-	-	-	-
Stage 1	*583	-	-	-	-	-
Stage 2	*539	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 927	-	570	-	-
HCM Lane V/C Ratio	0.036	-	0.122	-	-
HCM Control Delay (s)	9	-	12.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)

10: Indian Street & Harley Knox Boulevard — 6/24/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	355	312	50	14	244	30	39	171	17	35	159	447
Future Volume (veh/h)	355	312	50	14	244	30	39	171	17	35	159	447
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	433	380	52	17	298	26	48	209	11	43	194	462
Adj No. of Lanes	1	3	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1091	4701	1464	33	1495	128	119	1184	529	60	558	499
Arrive On Green	0.60	0.91	0.91	0.02	0.31	0.31	0.03	0.33	0.33	0.03	0.31	0.31
Sat Flow, veh/h	1810	5187	1615	1810	4867	418	3510	3610	1614	1810	1805	1615
Grp Volume(v), veh/h	433	380	52	17	210	114	48	209	11	43	194	462
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1826	1755	1805	1614	1810	1805	1615
Q Serve(g_s), s	13.7	0.8	1.5	1.0	4.9	5.1	1.5	4.5	0.5	2.6	9.2	30.5
Cycle Q Clear(g_c), s	13.7	0.8	1.5	1.0	4.9	5.1	1.5	4.5	0.5	2.6	9.2	30.5
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1091	4701	1464	33	1063	561	119	1184	529	60	558	499
V/C Ratio(X)	0.40	0.08	0.04	0.51	0.20	0.20	0.40	0.18	0.02	0.71	0.35	0.93
Avail Cap(c_a), veh/h	1091	4701	1464	86	1063	561	160	1184	529	82	558	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	0.5	10.1	53.5	28.1	28.1	52.0	26.4	25.0	52.7	29.4	36.8
Incr Delay (d2), s/veh	0.1	0.0	0.0	4.4	0.4	0.8	0.8	0.3	0.1	8.6	1.7	25.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.4	0.7	0.6	2.4	2.7	0.7	2.3	0.2	1.4	4.8	17.1
LnGrp Delay(d),s/veh	11.5	0.6	10.2	57.9	28.5	29.0	52.9	26.7	25.1	61.2	31.1	62.2
LnGrp LOS	B	A	B	E	C	C	D	C	C	E	C	E
Approach Vol, veh/h		865			341			268			699	
Approach Delay, s/veh		6.6			30.1			31.3			53.5	
Approach LOS		A			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	106.1	9.1	40.2	72.8	39.6	7.9	41.5
Change Period (Y+Rc), s	* 4.2	5.8	5.4	* 6.2	5.8	* 5.8	* 4.2	5.4
Max Green Setting (Gmax), s	* 5.2	45.4	5.0	* 34	16.8	* 34	* 5	34.8
Max Q Clear Time (g_c+I1), s	3.0	3.5	3.5	32.5	15.7	7.1	4.6	6.5
Green Ext Time (p_c), s	0.0	2.1	0.0	0.5	0.2	1.1	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	28.4
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 5.2:

E+P CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Queues — Indian Street Commerce Center TIA (JN09912)

1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 1/6/2016

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	612	11	193	226	472	154
v/c Ratio	0.39	0.02	0.75	0.10	0.85	0.26
Control Delay	26.8	0.0	74.2	11.7	53.4	5.1
Queue Delay	0.0	0.0	0.3	0.0	0.0	0.0
Total Delay	26.8	0.0	74.5	11.7	53.4	5.1
Queue Length 50th (ft)	171	0	160	33	338	0
Queue Length 95th (ft)	267	0	237	67	431	43
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	1550	727	368	2201	679	701
Starvation Cap Reductn	0	0	18	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.02	0.55	0.10	0.70	0.22

Intersection Summary

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

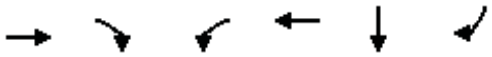
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	362	769	424	600	19	130
v/c Ratio	0.84	0.27	0.23	0.56	0.07	0.38
Control Delay	51.1	3.2	18.0	6.4	45.6	11.3
Queue Delay	0.4	0.4	0.0	0.0	0.0	0.0
Total Delay	51.5	3.5	18.0	6.4	45.6	11.3
Queue Length 50th (ft)	88	34	93	41	13	0
Queue Length 95th (ft)	180	84	140	131	35	52
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	594	2797	1829	1063	259	340
Starvation Cap Reductn	38	1353	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.53	0.23	0.56	0.07	0.38

Intersection Summary

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Queues — Indian Street Commerce Center TIA (JN09912)

1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 6/28/2016



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	438	38	232	152	462	207
v/c Ratio	0.30	0.06	0.78	0.07	0.82	0.32
Control Delay	27.7	3.8	73.8	11.6	50.4	4.7
Queue Delay	0.0	0.0	0.5	0.0	0.0	0.0
Total Delay	27.7	3.8	74.3	11.6	50.4	4.7
Queue Length 50th (ft)	120	0	193	22	330	0
Queue Length 95th (ft)	195	14	271	48	395	45
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	1460	688	428	2190	724	770
Starvation Cap Reductn	0	0	34	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.06	0.59	0.07	0.64	0.27

Intersection Summary

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	271	667	393	664	10	229
v/c Ratio	0.80	0.25	0.21	0.59	0.03	0.49
Control Delay	53.9	2.7	16.4	4.8	41.5	9.3
Queue Delay	0.2	0.3	0.0	0.0	0.0	0.0
Total Delay	54.1	3.0	16.4	4.8	41.5	9.3
Queue Length 50th (ft)	65	13	82	20	7	0
Queue Length 95th (ft)	146	57	118	64	21	53
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	488	2677	1896	1127	315	471
Starvation Cap Reductn	19	1340	0	0	0	0
Spillback Cap Reductn	0	0	69	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.50	0.22	0.59	0.03	0.49

Intersection Summary

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 5.3:

E+P CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

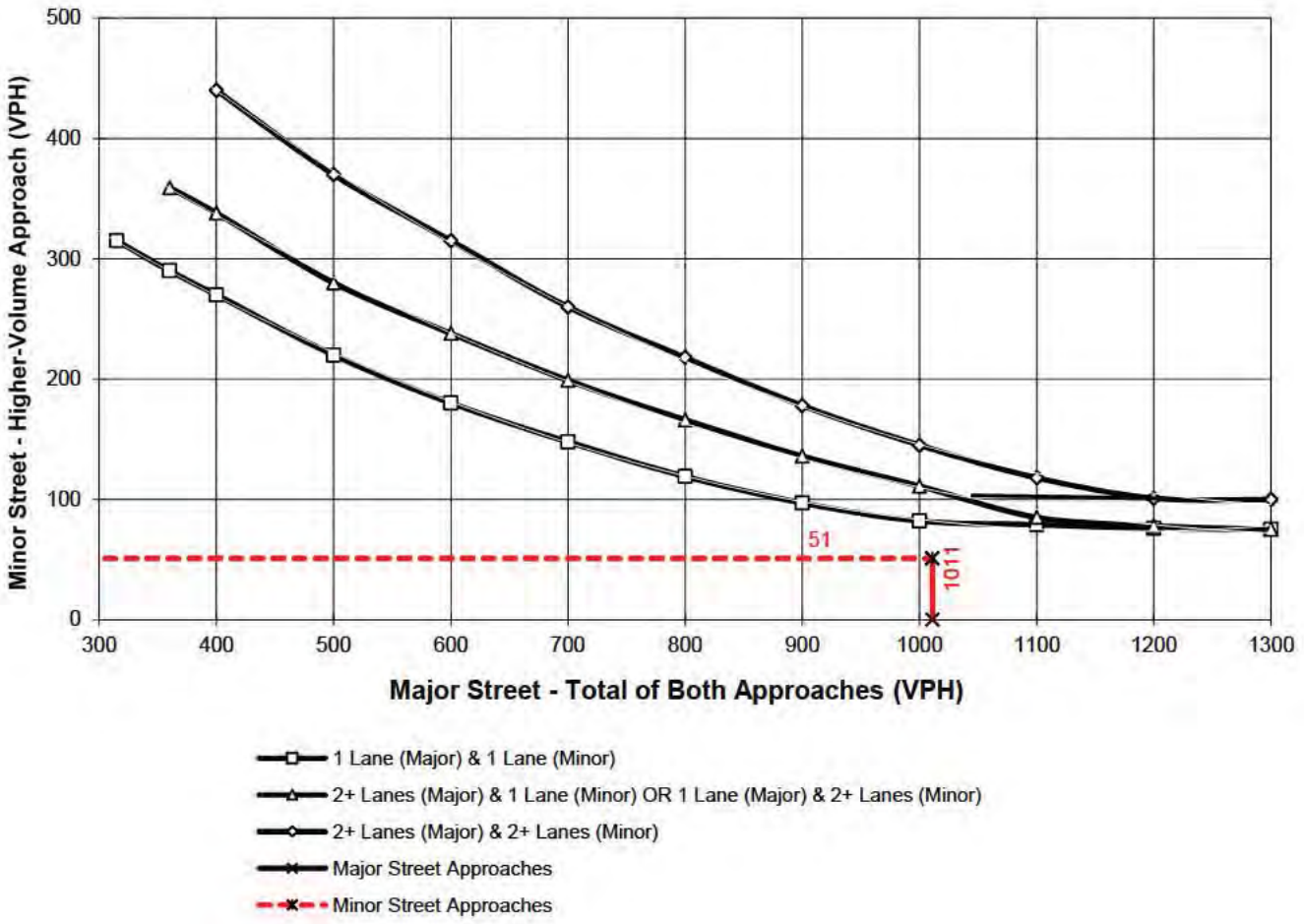
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P Conditions - Weekday PM Peak Hour**

Major Street Name = **Indian Street**
Total of Both Approaches (VPH) = **1011**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Grove View Road**
High Volume Approach (VPH) = **51**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

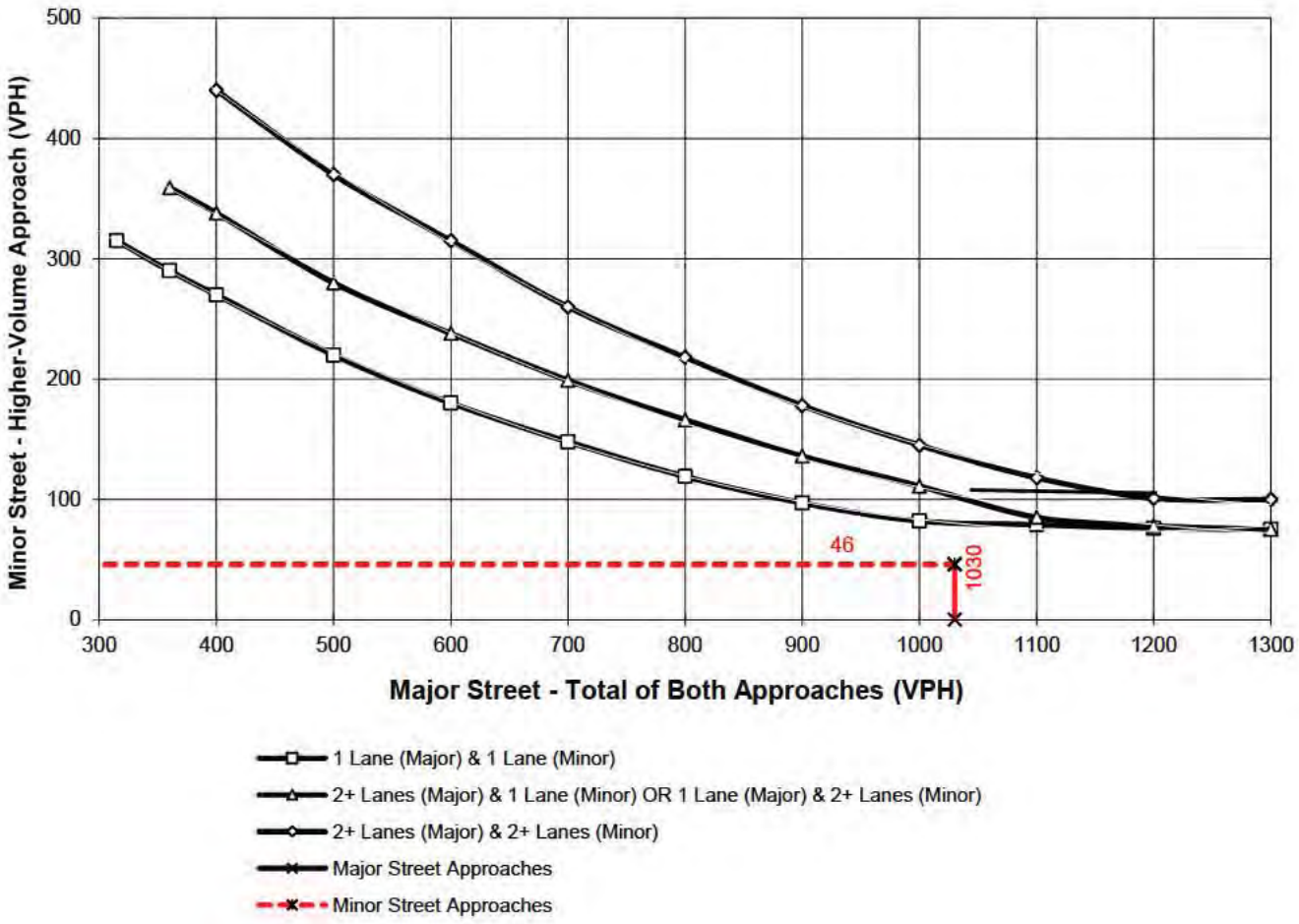
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P Conditions - Weekday PM Peak Hour**

Major Street Name = **Indian Street**
Total of Both Approaches (VPH) = **1030**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Driveway 1**
High Volume Approach (VPH) = **46**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

___ DIST ___ CO ___ RTE ___ PM

TRAFFIC CONDITIONS

CALC BB DATE 01/05/16

CHK CHS DATE 01/05/16

E+P

Jurisdiction: City of Moreno Valley

Major Street: Indian Street — Critical Approach Speed (Major) 50 mph

Minor Street: Driveway 1 — Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = 1 lane — Minor Street Approach Lanes 1 lane

Major Street Future ADT = 13,224 vpd — Minor Street Future ADT = 290 vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... [√]

or

In built up area of isolated community of < 10,000 population ..... [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **13,224**	1 **290**	8,000	5,600 *	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **13,224**	1 **290**	12,000	8,400 *	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more	A 17% B 34%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

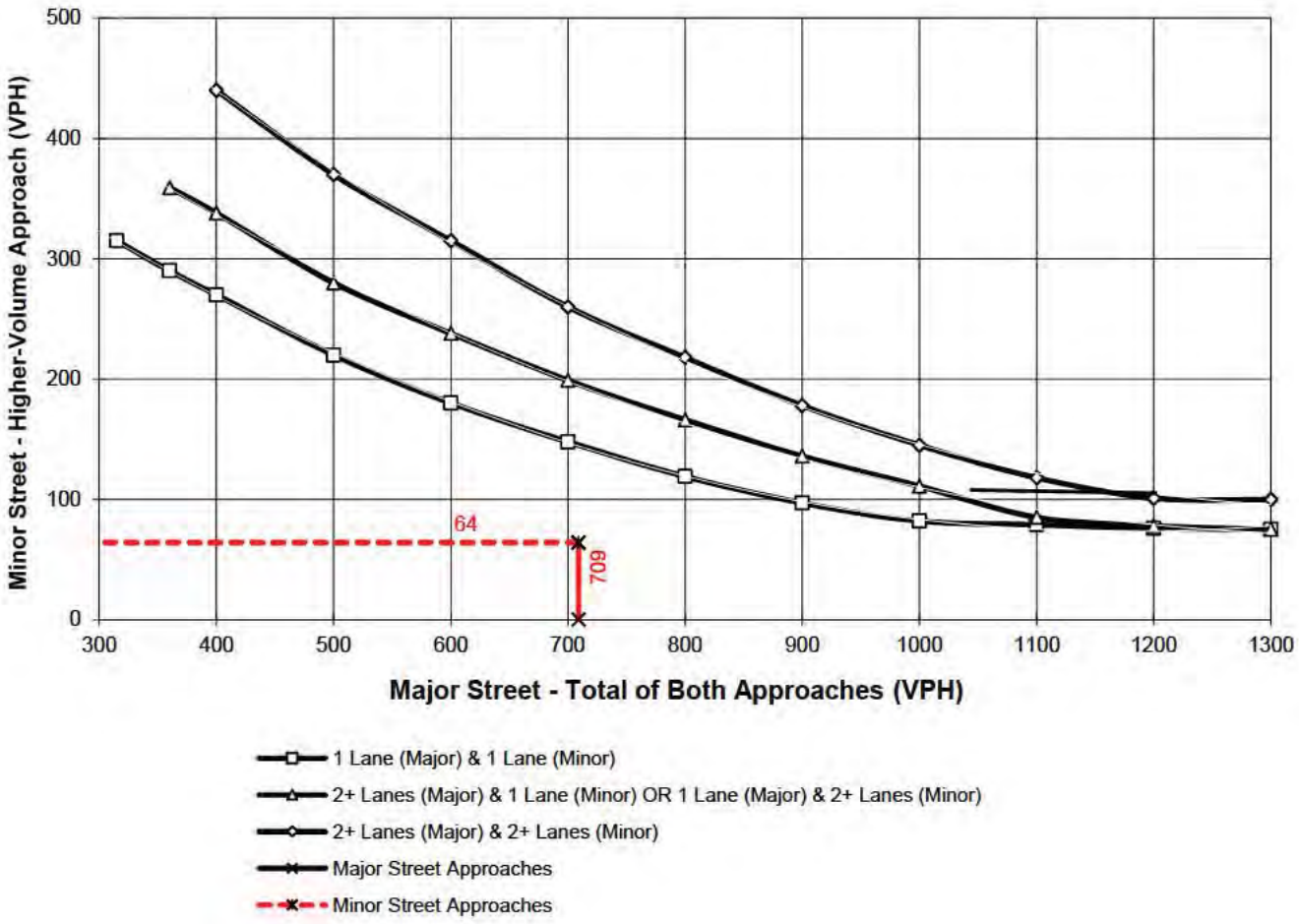
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P Conditions - Weekday AM Peak Hour**

Major Street Name = **Indian Street**
Total of Both Approaches (VPH) = **709**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Driveway 1**
High Volume Approach (VPH) = **64**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

___ DIST ___ CO ___ RTE ___ PM

TRAFFIC CONDITIONS

Jurisdiction: City of Moreno Valley

Major Street: Indian Street

Minor Street: Driveway 2

CALC BB DATE 01/05/16

CHK CHS DATE 01/05/16

E+P

Critical Approach Speed (Major) 50 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = 1 lane

Minor Street Approach Lanes 1 lane

Major Street Future ADT = 13,662 vpd

Minor Street Future ADT = 447 vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √

or

In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Vehicles Per Day on Major Street (Total of Both Approaches) Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Rural
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied (XX)				
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 13,662 / 1 447	8,000	5,600 *	2,400	1,680
2 + / 1	9,600	6,720	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				
Satisfied / Not Satisfied (XX)				
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 13,662 / 1 447	12,000	8,400 *	1,200	850
2 + / 1	14,400	10,080	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied (XX)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ..... A 27% B 53%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 6.1:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	717	44	306	335	0	0	0	0	1511	3	369
Future Volume (veh/h)	0	717	44	306	335	0	0	0	0	1511	3	369
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	788	45	336	368	0				1660	3	340
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	722	323	467	1805	0				1009	2	902
Arrive On Green	0.00	0.20	0.20	0.52	1.00	0.00				0.56	0.56	0.56
Sat Flow, veh/h	0	3705	1615	1810	3705	0				1806	3	1615
Grp Volume(v), veh/h	0	788	45	336	368	0				1663	0	340
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1810	1805	0				1810	0	1615
Q Serve(g_s), s	0.0	24.0	2.8	17.1	0.0	0.0				67.0	0.0	14.1
Cycle Q Clear(g_c), s	0.0	24.0	2.8	17.1	0.0	0.0				67.0	0.0	14.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	722	323	467	1805	0				1010	0	902
V/C Ratio(X)	0.00	1.09	0.14	0.72	0.20	0.00				1.65	0.00	0.38
Avail Cap(c_a), veh/h	0	722	323	467	1805	0				1010	0	902
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.88	0.88	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	48.0	39.5	25.6	0.0	0.0				26.5	0.0	14.8
Incr Delay (d2), s/veh	0.0	61.2	0.9	4.0	0.2	0.0				295.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.1	1.3	8.9	0.1	0.0				115.9	0.0	6.3
LnGrp Delay(d),s/veh	0.0	109.2	40.4	29.7	0.2	0.0				321.6	0.0	15.1
LnGrp LOS		F	D	C	A					F		B
Approach Vol, veh/h		833			704						2003	
Approach Delay, s/veh		105.4			14.3						269.6	
Approach LOS		F			B						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	36.5	29.0		72.0		65.5		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	14.5	* 24		67.0		43.0		
Max Q Clear Time (g_c+I1), s	19.1	26.0		69.0		2.0		
Green Ext Time (p_c), s	0.0	0.0		0.0		1.8		

Intersection Summary	
HCM 2010 Ctrl Delay	180.2
HCM 2010 LOS	F

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
2: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	438	1790	0	0	547	842	93	4	406	0	0	0
Future Volume (veh/h)	438	1790	0	0	547	842	93	4	406	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	503	2057	0	0	629	942	107	5	413			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	613	2698	0	0	1324	592	433	20	404			
Arrive On Green	0.68	1.00	0.00	0.00	0.37	0.37	0.25	0.25	0.25			
Sat Flow, veh/h	1810	3705	0	0	3705	1615	1732	81	1615			
Grp Volume(v), veh/h	503	2057	0	0	629	942	112	0	413			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1615	1813	0	1615			
Q Serve(g_s), s	24.2	0.0	0.0	0.0	16.0	44.0	5.9	0.0	30.0			
Cycle Q Clear(g_c), s	24.2	0.0	0.0	0.0	16.0	44.0	5.9	0.0	30.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.96		1.00			
Lane Grp Cap(c), veh/h	613	2698	0	0	1324	592	453	0	404			
V/C Ratio(X)	0.82	0.76	0.00	0.00	0.48	1.59	0.25	0.00	1.02			
Avail Cap(c_a), veh/h	613	2698	0	0	1324	592	453	0	404			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	16.7	0.0	0.0	0.0	29.1	38.0	36.0	0.0	45.0			
Incr Delay (d2), s/veh	0.8	0.2	0.0	0.0	1.2	273.8	1.3	0.0	50.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	11.9	0.1	0.0	0.0	8.2	64.6	3.1	0.0	19.0			
LnGrp Delay(d),s/veh	17.5	0.2	0.0	0.0	30.4	311.8	37.3	0.0	95.8			
LnGrp LOS	B	A			C	F	D		F			
Approach Vol, veh/h		2560			1571			525				
Approach Delay, s/veh		3.6			199.1			83.3				
Approach LOS		A			F			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		94.7			45.7	49.0		35.0
Change Period (Y+Rc), s		5.0			5.0	* 5		5.0
Max Green Setting (Gmax), s		80.0			32.5	* 44		30.0
Max Q Clear Time (g_c+I1), s		2.0			26.2	46.0		32.0
Green Ext Time (p_c), s		20.0			4.8	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	78.5
HCM 2010 LOS	E

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	21.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	75	2122	1315	29	2	75
Future Vol, veh/h	75	2122	1315	29	2	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	91	2588	1604	35	2	91

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1604	0	-	0	3081	802
Stage 1	-	-	-	-	1604	-
Stage 2	-	-	-	-	1477	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	413	-	-	-	*~ 1	331
Stage 1	-	-	-	-	*153	-
Stage 2	-	-	-	-	*199	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	413	-	-	-	*~ 1	331
Mov Cap-2 Maneuver	-	-	-	-	*~ 1	-
Stage 1	-	-	-	-	*153	-
Stage 2	-	-	-	-	*199	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	$ 1003.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	413	-	-	-	35
HCM Lane V/C Ratio	0.221	-	-	-	2.683
HCM Control Delay (s)	16.2	0	-	-	$ 1003.8
HCM Lane LOS	C	A	-	-	F
HCM 95th %tile Q(veh)	0.8	-	-	-	10.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

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HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)

4: Patterson Avenue & Harley Knox Boulevard

1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	1953	12	12	1190	15	99	2	37	3	4	20
Future Volume (veh/h)	87	1953	12	12	1190	15	99	2	37	3	4	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	2382	13	15	1451	18	121	2	40	4	5	22
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	2044	914	30	1842	824	361	13	105	241	287	471
Arrive On Green	0.07	0.57	0.57	0.02	0.51	0.51	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1810	3610	1615	1810	3610	1615	1060	45	359	679	985	1615
Grp Volume(v), veh/h	106	2382	13	15	1451	18	163	0	0	9	0	22
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1805	1615	1464	0	0	1664	0	1615
Q Serve(g_s), s	6.9	67.9	0.4	1.0	39.5	0.7	9.8	0.0	0.0	0.0	0.0	1.2
Cycle Q Clear(g_c), s	6.9	67.9	0.4	1.0	39.5	0.7	10.5	0.0	0.0	0.4	0.0	1.2
Prop In Lane	1.00		1.00	1.00		1.00	0.74		0.25	0.44		1.00
Lane Grp Cap(c), veh/h	131	2044	914	30	1842	824	479	0	0	529	0	471
V/C Ratio(X)	0.81	1.17	0.01	0.51	0.79	0.02	0.34	0.00	0.00	0.02	0.00	0.05
Avail Cap(c_a), veh/h	157	2044	914	75	1842	824	479	0	0	529	0	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.8	26.0	11.4	58.5	24.1	14.6	33.8	0.0	0.0	30.2	0.0	30.5
Incr Delay (d2), s/veh	19.3	80.3	0.0	4.9	3.5	0.0	1.9	0.0	0.0	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	56.3	0.2	0.5	20.4	0.3	4.6	0.0	0.0	0.2	0.0	0.6
LnGrp Delay(d),s/veh	74.1	106.3	11.4	63.4	27.6	14.6	35.7	0.0	0.0	30.3	0.0	30.7
LnGrp LOS	E	F	B	E	C	B	D			C		C
Approach Vol, veh/h		2501			1484			163			31	
Approach Delay, s/veh		104.4			27.8			35.7			30.6	
Approach LOS		F			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.2	73.7		40.1	12.9	67.0		40.1
Change Period (Y+Rc), s	* 4.2	5.8		5.1	* 4.2	5.8		5.1
Max Green Setting (Gmax), s	* 5	64.9		35.0	* 10	59.5		35.0
Max Q Clear Time (g_c+I1), s	3.0	69.9		3.2	8.9	41.5		12.5
Green Ext Time (p_c), s	0.0	0.0		0.7	0.0	16.4		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	74.0
HCM 2010 LOS	E

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	1955	31	0	1217	0	5
Future Vol, veh/h	1955	31	0	1217	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2273	36	0	1415	0	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2309	0	2857	1155
Stage 1	-	-	-	-	2291	-
Stage 2	-	-	-	-	566	-
Critical Hdwy	-	-	5.3	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	-	-	3.1	-	3.8	3.9
Pot Cap-1 Maneuver	-	-	512	-	*331	*461
Stage 1	-	-	-	-	*424	-
Stage 2	-	-	-	-	*652	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	512	-	*331	*461
Mov Cap-2 Maneuver	-	-	-	-	*331	-
Stage 1	-	-	-	-	*424	-
Stage 2	-	-	-	-	*652	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	461	-	-	512	-
HCM Lane V/C Ratio	0.013	-	-	-	-
HCM Control Delay (s)	12.9	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)
6: Indian Street & Nandina Avenue — 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	32	178	89	24	8	287	1462	119	11	455	24
Future Volume (veh/h)	5	32	178	89	24	8	287	1462	119	11	455	24
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	38	160	106	29	9	342	1740	135	13	542	28
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	14	186	489	124	302	256	371	2205	169	27	1600	83
Arrive On Green	0.01	0.10	0.10	0.07	0.16	0.16	0.20	0.65	0.65	0.01	0.46	0.46
Sat Flow, veh/h	1810	1900	1615	1810	1900	1612	1810	3398	261	1810	3489	180
Grp Volume(v), veh/h	6	38	160	106	29	9	342	915	960	13	280	290
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1612	1810	1805	1854	1810	1805	1864
Q Serve(g_s), s	0.4	2.2	9.2	7.0	1.6	0.6	22.2	43.3	45.2	0.9	11.9	12.0
Cycle Q Clear(g_c), s	0.4	2.2	9.2	7.0	1.6	0.6	22.2	43.3	45.2	0.9	11.9	12.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.10
Lane Grp Cap(c), veh/h	14	186	489	124	302	256	371	1171	1203	27	828	855
V/C Ratio(X)	0.44	0.20	0.33	0.86	0.10	0.04	0.92	0.78	0.80	0.49	0.34	0.34
Avail Cap(c_a), veh/h	80	380	654	124	426	361	519	1171	1203	81	828	855
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.3	49.8	32.4	55.3	43.1	42.7	46.8	15.0	15.3	58.7	20.8	20.8
Incr Delay (d2), s/veh	8.0	0.2	0.1	39.8	0.1	0.0	15.0	5.2	5.6	5.1	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.2	4.1	4.8	0.8	0.3	12.7	23.0	24.8	0.5	6.2	6.4
LnGrp Delay(d),s/veh	67.3	50.0	32.5	95.1	43.2	42.7	61.8	20.2	20.9	63.8	21.9	21.9
LnGrp LOS	E	D	C	F	D	D	E	C	C	E	C	C
Approach Vol, veh/h		204			144			2217			583	
Approach Delay, s/veh		36.8			81.4			26.9			22.8	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	84.1	12.4	17.6	28.8	61.2	5.1	24.9
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	* 4.2	6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 5.4	62.0	* 8.2	24.0	* 34	33.0	* 5.3	26.9
Max Q Clear Time (g_c+I1), s	2.9	47.2	9.0	11.2	24.2	14.0	2.4	3.6
Green Ext Time (p_c), s	0.0	9.0	0.0	0.4	0.4	10.6	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	29.3
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	16	6	1846	33	1	722
Future Vol, veh/h	16	6	1846	33	1	722
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	210	0	-	-	120	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	19	7	2198	39	1	860

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3079	2217	0	0	2237	0
Stage 1	2217	-	-	-	-	-
Stage 2	862	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	~ 0	56	-	-	235	-
Stage 1	90	-	-	-	-	-
Stage 2	425	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	0	56	-	-	235	-
Mov Cap-2 Maneuver	68	-	-	-	-	-
Stage 1	90	-	-	-	-	-
Stage 2	424	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	77.7	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	68	56	235	-
HCM Lane V/C Ratio	-	-	0.28	0.128	0.005	-
HCM Control Delay (s)	-	-	77.4	78.5	20.4	-
HCM Lane LOS	-	-	F	F	C	-
HCM 95th %tile Q(veh)	-	-	1	0.4	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	4	2	1877	5	2	736
Future Vol, veh/h	4	2	1877	5	2	736
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	2	2040	5	2	800

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2847	1023	0	0	2046	0
Stage 1	2043	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Critical Hdwy	5	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5	-	-	-	-	-
Critical Hdwy Stg 2	5	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	*31	237	-	-	279	-
Stage 1	*139	-	-	-	-	-
Stage 2	*438	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	*31	237	-	-	279	-
Mov Cap-2 Maneuver	*106	-	-	-	-	-
Stage 1	*139	-	-	-	-	-
Stage 2	*435	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	34.2	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	130	279	-
HCM Lane V/C Ratio	-	-	0.05	0.008	-
HCM Control Delay (s)	-	-	34.2	18	-
HCM Lane LOS	-	-	D	C	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)
10: Indian Street & Harley Knox Boulevard — 6/24/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	942	877	148	22	609	47	114	222	21	11	80	451
Future Volume (veh/h)	942	877	148	22	609	47	114	222	21	11	80	451
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1024	953	153	24	662	44	124	241	9	12	87	458
Adj No. of Lanes	1	3	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1200	4852	1511	42	1398	92	146	1124	503	25	511	458
Arrive On Green	0.66	0.94	0.94	0.02	0.28	0.28	0.04	0.31	0.31	0.01	0.28	0.28
Sat Flow, veh/h	1810	5187	1615	1810	4964	328	3510	3610	1615	1810	1805	1615
Grp Volume(v), veh/h	1024	953	153	24	460	246	124	241	9	12	87	458
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1834	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	52.7	1.7	0.8	1.6	13.2	13.4	4.2	5.9	0.5	0.8	4.4	34.0
Cycle Q Clear(g_c), s	52.7	1.7	0.8	1.6	13.2	13.4	4.2	5.9	0.5	0.8	4.4	34.0
Prop In Lane	1.00		1.00	1.00		0.18	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1200	4852	1511	42	974	517	146	1124	503	25	511	458
V/C Ratio(X)	0.85	0.20	0.10	0.58	0.47	0.48	0.85	0.21	0.02	0.48	0.17	1.00
Avail Cap(c_a), veh/h	1200	4852	1511	87	974	517	146	1124	503	75	511	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	0.3	0.3	58.0	35.7	35.8	57.1	30.5	28.6	58.8	32.4	43.0
Incr Delay (d2), s/veh	5.8	0.1	0.1	4.7	1.6	3.1	33.2	0.4	0.1	5.3	0.7	42.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.8	0.8	0.4	0.8	6.5	7.2	2.7	3.0	0.2	0.4	2.3	20.5
LnGrp Delay(d),s/veh	21.5	0.4	0.4	62.7	37.4	38.9	90.3	30.9	28.7	64.1	33.1	85.3
LnGrp LOS	C	A	A	E	D	D	F	C	C	E	C	F
Approach Vol, veh/h		2130			730			374			557	
Approach Delay, s/veh		10.5			38.7			50.6			76.7	
Approach LOS		B			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	119.6	9.2	40.2	87.0	39.6	5.8	43.6
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	6.2	5.8	* 5.8	* 4.2	* 6.2
Max Green Setting (Gmax), s	* 5.8	54.8	* 5	34.0	26.8	* 34	* 5	* 35
Max Q Clear Time (g_c+I1), s	3.6	3.7	6.2	36.0	54.7	15.4	2.8	7.9
Green Ext Time (p_c), s	0.0	7.6	0.0	0.0	0.0	2.5	0.0	3.1

Intersection Summary	
HCM 2010 Ctrl Delay	29.6
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 6/28/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↲	↱
Traffic Volume (veh/h)	0	713	132	684	203	0	0	0	0	839	3	313
Future Volume (veh/h)	0	713	132	684	203	0	0	0	0	839	3	313
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	810	140	777	231	0				953	3	283
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	752	336	784	2467	0				677	2	606
Arrive On Green	0.00	0.21	0.21	0.14	0.23	0.00				0.38	0.38	0.38
Sat Flow, veh/h	0	3705	1615	1810	3705	0				1804	6	1615
Grp Volume(v), veh/h	0	810	140	777	231	0				956	0	283
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1810	1805	0				1810	0	1615
Q Serve(g_s), s	0.0	25.0	9.0	51.4	6.1	0.0				45.0	0.0	15.9
Cycle Q Clear(g_c), s	0.0	25.0	9.0	51.4	6.1	0.0				45.0	0.0	15.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	752	336	784	2467	0				679	0	606
V/C Ratio(X)	0.00	1.08	0.42	0.99	0.09	0.00				1.41	0.00	0.47
Avail Cap(c_a), veh/h	0	752	336	784	2467	0				679	0	606
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.87	0.87	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	47.5	41.2	51.2	17.1	0.0				37.5	0.0	28.4
Incr Delay (d2), s/veh	0.0	55.5	3.8	27.7	0.1	0.0				192.6	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.2	4.4	31.9	3.1	0.0				58.7	0.0	7.2
LnGrp Delay(d),s/veh	0.0	103.0	44.9	78.8	17.1	0.0				230.1	0.0	29.0
LnGrp LOS		F	D	E	B					F		C
Approach Vol, veh/h		950			1008						1239	
Approach Delay, s/veh		94.5			64.7						184.2	
Approach LOS		F			E						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	57.5	30.0		50.0		87.5		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	35.5	* 25		45.0		65.0		
Max Q Clear Time (g_c+I1), s	53.4	27.0		47.0		8.1		
Green Ext Time (p_c), s	0.0	0.0		0.0		2.1		

Intersection Summary	
HCM 2010 Ctrl Delay	119.9
HCM 2010 LOS	F

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
2: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	509	1042	0	0	837	1643	51	0	294	0	0	0
Future Volume (veh/h)	509	1042	0	0	837	1643	51	0	294	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	606	1240	0	0	996	1945	61	0	182			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	782	3786	0	0	2076	917	226	0	202			
Arrive On Green	0.86	1.00	0.00	0.00	0.57	0.57	0.13	0.00	0.13			
Sat Flow, veh/h	1810	3705	0	0	3705	1595	1810	0	1615			
Grp Volume(v), veh/h	606	1240	0	0	996	1945	61	0	182			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1595	1810	0	1615			
Q Serve(g_s), s	16.5	0.0	0.0	0.0	19.4	69.0	3.7	0.0	13.3			
Cycle Q Clear(g_c), s	16.5	0.0	0.0	0.0	19.4	69.0	3.7	0.0	13.3			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	782	3786	0	0	2076	917	226	0	202			
V/C Ratio(X)	0.77	0.33	0.00	0.00	0.48	2.12	0.27	0.00	0.90			
Avail Cap(c_a), veh/h	782	3786	0	0	2076	917	226	0	202			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	5.7	0.0	0.0	0.0	15.0	25.5	47.5	0.0	51.8			
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.8	508.0	2.9	0.0	41.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.5	0.0	0.0	0.0	9.9	159.5	2.0	0.0	8.3			
LnGrp Delay(d),s/veh	6.2	0.0	0.0	0.0	15.8	533.5	50.5	0.0	93.7			
LnGrp LOS	A	A			B	F	D		F			
Approach Vol, veh/h		1846			2941			243				
Approach Delay, s/veh		2.0			358.2			82.9				
Approach LOS		A			F			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		130.9			56.9	74.0		20.0
Change Period (Y+Rc), s		5.0			5.0	* 5		5.0
Max Green Setting (Gmax), s		95.0			22.5	* 69		15.0
Max Q Clear Time (g_c+I1), s		2.0			18.5	71.0		15.3
Green Ext Time (p_c), s		7.8			2.5	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	214.2
HCM 2010 LOS	F

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	22	1314	2386	7	15	93
Future Vol, veh/h	22	1314	2386	7	15	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	25	1493	2711	8	17	106

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2711	0	-	0	3508	1356
Stage 1	-	-	-	-	2711	-
Stage 2	-	-	-	-	797	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	153	-	-	-	*~ 1	142
Stage 1	-	-	-	-	*37	-
Stage 2	-	-	-	-	*514	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	153	-	-	-	*0	142
Mov Cap-2 Maneuver	-	-	-	-	*0	-
Stage 1	-	-	-	-	*37	-
Stage 2	-	-	-	-	*21	-

Approach	EB	WB	SB
HCM Control Delay, s	15.6	0	103.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	153	-	-	-	142
HCM Lane V/C Ratio	0.163	-	-	-	0.864
HCM Control Delay (s)	33.1	15.3	-	-	103.7
HCM Lane LOS	D	C	-	-	F
HCM 95th %tile Q(veh)	0.6	-	-	-	5.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
4: Patterson Avenue & Harley Knox Boulevard 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1249	26	39	2198	3	71	4	20	7	2	94
Future Volume (veh/h)	20	1249	26	39	2198	3	71	4	20	7	2	94
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	1469	31	46	2586	3	84	5	19	8	2	104
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	1877	840	142	2126	951	376	27	74	420	99	492
Arrive On Green	0.02	0.52	0.52	0.08	0.59	0.59	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1810	3610	1615	1810	3610	1615	1051	87	243	1195	326	1615
Grp Volume(v), veh/h	24	1469	31	46	2586	3	108	0	0	10	0	104
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1805	1615	1382	0	0	1521	0	1615
Q Serve(g_s), s	1.5	37.9	1.1	2.8	67.7	0.1	6.0	0.0	0.0	0.0	0.0	5.5
Cycle Q Clear(g_c), s	1.5	37.9	1.1	2.8	67.7	0.1	6.6	0.0	0.0	0.4	0.0	5.5
Prop In Lane	1.00		1.00	1.00		1.00	0.78		0.18	0.80		1.00
Lane Grp Cap(c), veh/h	42	1877	840	142	2126	951	476	0	0	519	0	492
V/C Ratio(X)	0.57	0.78	0.04	0.32	1.22	0.00	0.23	0.00	0.00	0.02	0.00	0.21
Avail Cap(c_a), veh/h	79	1877	840	142	2126	951	476	0	0	519	0	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.6	22.3	13.5	50.1	23.6	9.7	30.1	0.0	0.0	28.0	0.0	29.7
Incr Delay (d2), s/veh	4.4	3.3	0.1	0.5	101.9	0.0	1.1	0.0	0.0	0.1	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	19.6	0.5	1.4	63.5	0.0	2.7	0.0	0.0	0.2	0.0	2.6
LnGrp Delay(d),s/veh	60.0	25.7	13.6	50.6	125.5	9.7	31.2	0.0	0.0	28.0	0.0	30.7
LnGrp LOS	E	C	B	D	F	A	C			C		C
Approach Vol, veh/h		1524			2635			108			114	
Approach Delay, s/veh		26.0			124.1			31.2			30.5	
Approach LOS		C			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.9	65.6		40.1	6.9	73.6		40.1
Change Period (Y+Rc), s	5.8	* 5.8		5.1	* 4.2	5.8		5.1
Max Green Setting (Gmax), s	5.1	* 60		35.0	* 5	59.9		35.0
Max Q Clear Time (g_c+I1), s	4.8	39.9		7.5	3.5	69.7		8.6
Green Ext Time (p_c), s	0.0	7.4		0.6	0.0	0.0		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	85.2
HCM 2010 LOS	F

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	1237	20	0	2224	0	7
Future Vol, veh/h	1237	20	0	2224	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1422	23	0	2556	0	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1445	0	2456	722
Stage 1	-	-	-	-	1433	-
Stage 2	-	-	-	-	1023	-
Critical Hdwy	-	-	5.3	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	-	-	3.1	-	3.8	3.9
Pot Cap-1 Maneuver	-	-	706	-	*54	*645
Stage 1	-	-	-	-	*568	-
Stage 2	-	-	-	-	*406	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	706	-	*54	*645
Mov Cap-2 Maneuver	-	-	-	-	*54	-
Stage 1	-	-	-	-	*568	-
Stage 2	-	-	-	-	*406	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	645	-	-	706	-
HCM Lane V/C Ratio	0.012	-	-	-	-
HCM Control Delay (s)	10.7	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary
6: Indian Street & Nandina Avenue

Indian Street Commerce Center TIA (JN09912)
1/6/2016



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	102	456	217	71	37	143	754	109	71	1461	68
Future Volume (veh/h)	39	102	456	217	71	37	143	754	109	71	1461	68
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	134	430	286	93	16	188	992	109	93	1922	57
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	66	380	468	208	554	454	163	2882	317	117	3056	90
Arrive On Green	0.04	0.20	0.20	0.12	0.29	0.29	0.09	0.88	0.88	0.06	0.85	0.85
Sat Flow, veh/h	1810	1900	1611	1810	1900	1557	1810	3279	360	1810	3581	106
Grp Volume(v), veh/h	51	134	430	286	93	16	188	546	555	93	964	1015
Grp Sat Flow(s),veh/h/ln	1810	1900	1611	1810	1900	1557	1810	1805	1834	1810	1805	1881
Q Serve(g_s), s	3.4	7.3	24.0	13.8	4.4	0.9	10.8	6.3	6.3	6.1	20.2	20.6
Cycle Q Clear(g_c), s	3.4	7.3	24.0	13.8	4.4	0.9	10.8	6.3	6.3	6.1	20.2	20.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		0.06
Lane Grp Cap(c), veh/h	66	380	468	208	554	454	163	1587	1612	117	1541	1606
V/C Ratio(X)	0.77	0.35	0.92	1.37	0.17	0.04	1.15	0.34	0.34	0.80	0.63	0.63
Avail Cap(c_a), veh/h	133	380	468	208	554	454	163	1587	1612	142	1541	1606
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	41.3	115.8	53.1	31.6	30.4	54.6	1.3	1.3	55.4	2.8	2.8
Incr Delay (d2), s/veh	6.9	0.2	23.0	195.8	0.1	0.0	118.1	0.6	0.6	18.6	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.9	3.0	18.2	2.3	0.4	10.7	3.3	3.3	3.7	10.5	11.3
LnGrp Delay(d),s/veh	64.2	41.5	138.7	248.9	31.7	30.4	172.7	1.9	1.8	74.0	4.7	4.7
LnGrp LOS	E	D	F	F	C	C	F	A	A	E	A	A
Approach Vol, veh/h		615			395			1289			2072	
Approach Delay, s/veh		111.4			188.9			26.8			7.8	
Approach LOS		F			F			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	113.3	19.6	29.8	15.0	110.2	8.6	40.8
Change Period (Y+Rc), s	* 4.2	6.2	5.8	* 5.8	* 4.2	6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 9.4	52.4	13.8	* 24	* 11	51.0	* 8.8	29.0
Max Q Clear Time (g_c+I1), s	8.1	8.3	15.8	26.0	12.8	22.6	5.4	6.4
Green Ext Time (p_c), s	0.0	21.9	0.0	0.0	0.0	17.4	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	44.3
HCM 2010 LOS	D

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	36	14	999	39	16	2039
Future Vol, veh/h	36	14	999	39	16	2039
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	210	0	-	-	120	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	47	18	1297	51	21	2648

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	4013	1323	0	0	1348	0
Stage 1	1323	-	-	-	-	-
Stage 2	2690	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	-	193	-	-	517	-
Stage 1	251	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %	2		-	-		-
Mov Cap-1 Maneuver	-	193	-	-	517	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	251	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s		0	0.1
HCM LOS	-		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	193	517	-
HCM Lane V/C Ratio	-	-	-	0.094	0.04	-
HCM Control Delay (s)	-	-	-	25.6	12.3	-
HCM Lane LOS	-	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	-	0.3	0.1	-

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	7	4	1034	2	1	2074
Future Vol, veh/h	7	4	1034	2	1	2074
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	50	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	4	1124	2	1	2254

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3382	563	0	0	1126	0
Stage 1	1125	-	-	-	-	-
Stage 2	2257	-	-	-	-	-
Critical Hdwy	5	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5	-	-	-	-	-
Critical Hdwy Stg 2	5	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	-	475	-	-	628	-
Stage 1	355	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %	2		-	-		-
Mov Cap-1 Maneuver	-	475	-	-	628	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	355	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s		0	0
HCM LOS	-		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	628	-
HCM Lane V/C Ratio	-	-	-	0.002	-
HCM Control Delay (s)	-	-	-	10.7	-
HCM Lane LOS	-	-	-	B	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)

10: Indian Street & Harley Knox Boulevard — 6/24/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	678	488	112	19	863	31	168	205	27	51	238	1194
Future Volume (veh/h)	678	488	112	19	863	31	168	205	27	51	238	1194
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	827	595	128	23	1052	27	205	250	23	62	290	1373
Adj No. of Lanes	1	3	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1474	5656	1761	40	1482	38	170	1173	524	80	579	518
Arrive On Green	0.81	1.00	1.00	0.02	0.28	0.28	0.05	0.32	0.32	0.04	0.32	0.32
Sat Flow, veh/h	1810	5187	1615	1810	5201	133	3510	3610	1614	1810	1805	1615
Grp Volume(v), veh/h	827	595	128	23	699	380	205	250	23	62	290	1373
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1876	1755	1805	1614	1810	1805	1615
Q Serve(g_s), s	18.7	0.0	0.0	1.5	21.7	21.8	5.8	6.0	1.2	4.1	15.6	38.5
Cycle Q Clear(g_c), s	18.7	0.0	0.0	1.5	21.7	21.8	5.8	6.0	1.2	4.1	15.6	38.5
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1474	5656	1761	40	986	535	170	1173	524	80	579	518
V/C Ratio(X)	0.56	0.11	0.07	0.57	0.71	0.71	1.21	0.21	0.04	0.78	0.50	2.65
Avail Cap(c_a), veh/h	1474	5656	1761	86	986	535	170	1173	524	81	579	518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.8	0.0	0.0	58.1	38.4	38.5	57.1	29.4	27.7	56.8	33.0	40.7
Incr Delay (d2), s/veh	0.3	0.0	0.1	4.6	4.3	7.8	136.1	0.4	0.2	32.9	3.1	747.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	0.0	0.0	0.8	11.0	12.4	6.0	3.1	0.5	2.8	8.2	124.8
LnGrp Delay(d),s/veh	4.1	0.0	0.1	62.7	42.8	46.2	193.2	29.8	27.9	89.7	36.0	788.7
LnGrp LOS	A	A	A	E	D	D	F	C	C	F	D	F
Approach Vol, veh/h		1550			1102			478			1725	
Approach Delay, s/veh		2.2			44.4			99.8			637.0	
Approach LOS		A			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	138.2	10.0	44.7	105.1	40.0	9.5	45.2
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	6.2	5.8	* 5.8	* 4.2	* 6.2
Max Green Setting (Gmax), s	* 5.7	50.3	* 5.8	37.8	21.8	* 34	* 5.4	* 39
Max Q Clear Time (g_c+I1), s	3.5	2.0	7.8	40.5	20.7	23.8	6.1	8.0
Green Ext Time (p_c), s	0.0	4.3	0.0	0.0	0.3	3.3	0.0	15.1

Intersection Summary		
HCM 2010 Ctrl Delay		246.9
HCM 2010 LOS		F

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 6.2:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	717	44	313	335	0	0	0	0	1581	3	369
Future Volume (veh/h)	0	717	44	313	335	0	0	0	0	1581	3	369
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	788	45	344	368	0				1737	3	340
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	722	323	467	1805	0				1009	2	902
Arrive On Green	0.00	0.20	0.20	0.52	1.00	0.00				0.56	0.56	0.56
Sat Flow, veh/h	0	3705	1615	1810	3705	0				1807	3	1615
Grp Volume(v), veh/h	0	788	45	344	368	0				1740	0	340
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1810	1805	0				1810	0	1615
Q Serve(g_s), s	0.0	24.0	2.8	17.8	0.0	0.0				67.0	0.0	14.1
Cycle Q Clear(g_c), s	0.0	24.0	2.8	17.8	0.0	0.0				67.0	0.0	14.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	722	323	467	1805	0				1010	0	902
V/C Ratio(X)	0.00	1.09	0.14	0.74	0.20	0.00				1.72	0.00	0.38
Avail Cap(c_a), veh/h	0	722	323	467	1805	0				1010	0	902
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.87	0.87	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	48.0	39.5	25.8	0.0	0.0				26.5	0.0	14.8
Incr Delay (d2), s/veh	0.0	61.2	0.9	4.6	0.2	0.0				329.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.1	1.3	9.4	0.1	0.0				125.5	0.0	6.3
LnGrp Delay(d),s/veh	0.0	109.2	40.4	30.4	0.2	0.0				355.6	0.0	15.1
LnGrp LOS		F	D	C	A					F		B
Approach Vol, veh/h		833			712						2080	
Approach Delay, s/veh		105.4			14.8						300.0	
Approach LOS		F			B						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	36.5	29.0		72.0		65.5		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	14.5	* 24		67.0		43.0		
Max Q Clear Time (g_c+I1), s	19.8	26.0		69.0		2.0		
Green Ext Time (p_c), s	0.0	0.0		0.0		1.8		

Intersection Summary	
HCM 2010 Ctrl Delay	199.3
HCM 2010 LOS	F

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
2: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	438	1860	0	0	554	860	93	4	414	0	0	0
Future Volume (veh/h)	438	1860	0	0	554	860	93	4	414	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	503	2138	0	0	637	963	107	5	422			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	616	2703	0	0	1324	592	433	20	404			
Arrive On Green	0.68	1.00	0.00	0.00	0.37	0.37	0.25	0.25	0.25			
Sat Flow, veh/h	1810	3705	0	0	3705	1615	1732	81	1615			
Grp Volume(v), veh/h	503	2138	0	0	637	963	112	0	422			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1615	1813	0	1615			
Q Serve(g_s), s	24.0	0.0	0.0	0.0	16.3	44.0	5.9	0.0	30.0			
Cycle Q Clear(g_c), s	24.0	0.0	0.0	0.0	16.3	44.0	5.9	0.0	30.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.96		1.00			
Lane Grp Cap(c), veh/h	616	2703	0	0	1324	592	453	0	404			
V/C Ratio(X)	0.82	0.79	0.00	0.00	0.48	1.63	0.25	0.00	1.05			
Avail Cap(c_a), veh/h	616	2703	0	0	1324	592	453	0	404			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	16.5	0.0	0.0	0.0	29.2	38.0	36.0	0.0	45.0			
Incr Delay (d2), s/veh	0.8	0.2	0.0	0.0	1.3	289.5	1.3	0.0	57.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	11.6	0.1	0.0	0.0	8.4	67.2	3.1	0.0	19.7			
LnGrp Delay(d),s/veh	17.2	0.2	0.0	0.0	30.5	327.5	37.3	0.0	102.1			
LnGrp LOS	B	A			C	F	D		F			
Approach Vol, veh/h		2641			1600			534				
Approach Delay, s/veh		3.5			209.2			88.5				
Approach LOS		A			F			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		94.9			45.9	49.0		35.0
Change Period (Y+Rc), s		5.0			5.0	* 5		5.0
Max Green Setting (Gmax), s		80.0			32.5	* 44		30.0
Max Q Clear Time (g_c+I1), s		2.0			26.0	46.0		32.0
Green Ext Time (p_c), s		22.0			5.1	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	81.9
HCM 2010 LOS	F

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	390.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	75	2200	1340	29	2	75
Future Vol, veh/h	75	2200	1340	29	2	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	91	2683	1634	35	2	91

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1634	0	-	0	3158	817
Stage 1	-	-	-	-	1634	-
Stage 2	-	-	-	-	1524	-
Critical Hdwy	10	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	~ 28	-	-	-	*~ 0	324
Stage 1	-	-	-	-	*148	-
Stage 2	-	-	-	-	*151	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	~ 28	-	-	-	*0	324
Mov Cap-2 Maneuver	-	-	-	-	*0	-
Stage 1	-	-	-	-	*148	-
Stage 2	-	-	-	-	*151	-

Approach	EB	WB	SB
HCM Control Delay, s	$ 637.9	0	20.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	~ 28	-	-	-	324
HCM Lane V/C Ratio	3.267	-	-	-	0.29
HCM Control Delay (s)	$ 1313.7	$ 614.9	-	-	20.6
HCM Lane LOS	F	F	-	-	C
HCM 95th %tile Q(veh)	11	-	-	-	1.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
4: Patterson Avenue & Harley Knox Boulevard 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	2031	12	13	1215	15	99	2	40	3	4	20
Future Volume (veh/h)	87	2031	12	13	1215	15	99	2	40	3	4	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	2477	13	16	1482	18	121	2	44	4	5	22
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	2041	913	31	1842	824	354	13	113	241	286	471
Arrive On Green	0.07	0.57	0.57	0.02	0.51	0.51	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1810	3610	1615	1810	3610	1615	1035	46	387	676	981	1615
Grp Volume(v), veh/h	106	2477	13	16	1482	18	167	0	0	9	0	22
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1805	1615	1468	0	0	1658	0	1615
Q Serve(g_s), s	6.9	67.8	0.4	1.1	40.9	0.7	10.0	0.0	0.0	0.0	0.0	1.2
Cycle Q Clear(g_c), s	6.9	67.8	0.4	1.1	40.9	0.7	10.8	0.0	0.0	0.4	0.0	1.2
Prop In Lane	1.00		1.00	1.00		1.00	0.72		0.26	0.44		1.00
Lane Grp Cap(c), veh/h	131	2041	913	31	1842	824	480	0	0	527	0	471
V/C Ratio(X)	0.81	1.21	0.01	0.51	0.80	0.02	0.35	0.00	0.00	0.02	0.00	0.05
Avail Cap(c_a), veh/h	157	2041	913	75	1842	824	480	0	0	527	0	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.8	26.1	11.4	58.5	24.4	14.6	33.9	0.0	0.0	30.2	0.0	30.5
Incr Delay (d2), s/veh	19.3	101.0	0.0	4.8	3.9	0.0	2.0	0.0	0.0	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	62.1	0.2	0.6	21.4	0.3	4.7	0.0	0.0	0.2	0.0	0.6
LnGrp Delay(d),s/veh	74.1	127.1	11.5	63.3	28.3	14.6	35.8	0.0	0.0	30.3	0.0	30.7
LnGrp LOS	E	F	B	E	C	B	D			C		C
Approach Vol, veh/h		2596			1516			167			31	
Approach Delay, s/veh		124.3			28.5			35.8			30.6	
Approach LOS		F			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	73.6		40.1	12.9	67.0		40.1
Change Period (Y+Rc), s	* 4.2	5.8		5.1	* 4.2	5.8		5.1
Max Green Setting (Gmax), s	* 5	64.9		35.0	* 10	59.5		35.0
Max Q Clear Time (g_c+I1), s	3.1	69.8		3.2	8.9	42.9		12.8
Green Ext Time (p_c), s	0.0	0.0		0.7	0.0	15.4		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	86.5
HCM 2010 LOS	F

Notes

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Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	2036	31	0	1243	0	5
Future Vol, veh/h	2036	31	0	1243	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2367	36	0	1445	0	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2403	0	2963	1202
Stage 1	-	-	-	-	2385	-
Stage 2	-	-	-	-	578	-
Critical Hdwy	-	-	5.3	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	-	-	3.1	-	3.8	3.9
Pot Cap-1 Maneuver	-	-	498	-	*297	*440
Stage 1	-	-	-	-	*416	-
Stage 2	-	-	-	-	*652	-
Platoon blocked, %	-	-	1	-	1	1
Mov Cap-1 Maneuver	-	-	498	-	*297	*440
Mov Cap-2 Maneuver	-	-	-	-	*297	-
Stage 1	-	-	-	-	*416	-
Stage 2	-	-	-	-	*652	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	440	-	-	498	-
HCM Lane V/C Ratio	0.013	-	-	-	-
HCM Control Delay (s)	13.3	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)
6: Indian Street & Nandina Avenue — 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	32	183	97	24	8	289	1462	122	11	455	24
Future Volume (veh/h)	5	32	183	97	24	8	289	1462	122	11	455	24
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	38	166	115	29	9	344	1740	138	13	542	28
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	14	192	495	124	307	260	373	2192	172	27	1587	82
Arrive On Green	0.01	0.10	0.10	0.07	0.16	0.16	0.21	0.65	0.65	0.01	0.45	0.45
Sat Flow, veh/h	1810	1900	1615	1810	1900	1612	1810	3392	266	1810	3489	180
Grp Volume(v), veh/h	6	38	166	115	29	9	344	917	961	13	280	290
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1612	1810	1805	1853	1810	1805	1864
Q Serve(g_s), s	0.4	2.2	9.5	7.6	1.6	0.6	22.4	43.8	45.8	0.9	12.0	12.1
Cycle Q Clear(g_c), s	0.4	2.2	9.5	7.6	1.6	0.6	22.4	43.8	45.8	0.9	12.0	12.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.10
Lane Grp Cap(c), veh/h	14	192	495	124	307	260	373	1166	1197	27	821	848
V/C Ratio(X)	0.44	0.20	0.34	0.93	0.09	0.03	0.92	0.79	0.80	0.49	0.34	0.34
Avail Cap(c_a), veh/h	80	380	656	124	426	361	519	1166	1197	81	821	848
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.3	49.5	32.1	55.6	42.8	42.4	46.7	15.3	15.6	58.7	21.1	21.1
Incr Delay (d2), s/veh	8.0	0.2	0.1	58.8	0.0	0.0	15.3	5.4	5.8	5.1	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.2	4.3	5.8	0.8	0.3	12.8	23.4	25.1	0.5	6.2	6.5
LnGrp Delay(d),s/veh	67.3	49.7	32.3	114.4	42.9	42.4	62.0	20.6	21.4	63.8	22.2	22.2
LnGrp LOS	E	D	C	F	D	D	E	C	C	E	C	C
Approach Vol, veh/h		210			153			2222			583	
Approach Delay, s/veh		36.4			96.6			27.3			23.2	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	83.7	12.4	17.9	28.9	60.8	5.1	25.2
Change Period (Y+Rc), s	* 4.2	6.2	* 4.2	5.8	* 4.2	6.2	* 4.2	5.8
Max Green Setting (Gmax), s	* 5.4	62.0	* 8.2	24.0	* 34	33.0	* 5.3	26.9
Max Q Clear Time (g_c+I1), s	2.9	47.8	9.6	11.5	24.4	14.1	2.4	3.6
Green Ext Time (p_c), s	0.0	8.8	0.0	0.4	0.4	10.6	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	30.5
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	26	6	1851	38	1	736
Future Vol, veh/h	26	6	1851	38	1	736
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	210	0	-	-	120	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	31	7	2204	45	1	876

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3105	2226	0	0	2249	0
Stage 1	2226	-	-	-	-	-
Stage 2	879	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	0	55	-	-	232	-
Stage 1	89	-	-	-	-	-
Stage 2	420	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	0	55	-	-	232	-
Mov Cap-2 Maneuver	67	-	-	-	-	-
Stage 1	89	-	-	-	-	-
Stage 2	418	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	95	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	67	55	232	-
HCM Lane V/C Ratio	-	-	0.462	0.13	0.005	-
HCM Control Delay (s)	-	-	98.4	80	20.6	-
HCM Lane LOS	-	-	F	F	C	-
HCM 95th %tile Q(veh)	-	-	1.8	0.4	0	-

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	7	0	11	4	0	2	31	1879	5	2	739	20
Future Vol, veh/h	7	0	11	4	0	2	31	1879	5	2	739	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	50	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	0	12	4	0	2	34	2042	5	2	803	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1907	2933	413	2519	2942	1024	825	0	0	2048	0	0
Stage 1	818	818	-	2113	2113	-	-	-	-	-	-	-
Stage 2	1089	2115	-	406	829	-	-	-	-	-	-	-
Critical Hdwy	5.2	6.5	5.2	5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	162	12	*801	*74	12	236	1163	-	-	278	-	-
Stage 1	726	642	-	*129	93	-	-	-	-	-	-	-
Stage 2	233	92	-	*755	633	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	156	11	*801	*71	11	236	1163	-	-	278	-	-
Mov Cap-2 Maneuver	210	82	-	*118	84	-	-	-	-	-	-	-
Stage 1	705	637	-	*125	90	-	-	-	-	-	-	-
Stage 2	224	89	-	*739	628	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.9	31.6	0.1	0
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1163	-	-	382	142	278	-	-
HCM Lane V/C Ratio	0.029	-	-	0.051	0.046	0.008	-	-
HCM Control Delay (s)	8.2	-	-	14.9	31.6	18.1	-	-
HCM Lane LOS	A	-	-	B	D	C	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	2	20	63	1908	747	3
Future Vol, veh/h	2	20	63	1908	747	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	22	68	2074	812	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1988	408	815	0	-	0
Stage 1	814	-	-	-	-	-
Stage 2	1174	-	-	-	-	-
Critical Hdwy	5.2	5.2	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	144	*801	1176	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	260	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	136	*801	1176	-	-	-
Mov Cap-2 Maneuver	208	-	-	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	245	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1176	-	636	-	-
HCM Lane V/C Ratio	0.058	-	0.038	-	-
HCM Control Delay (s)	8.2	-	10.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)
10: Indian Street & Harley Knox Boulevard — 6/24/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1023	877	148	22	609	60	114	222	21	16	80	477
Future Volume (veh/h)	1023	877	148	22	609	60	114	222	21	16	80	477
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1112	953	153	24	662	58	124	241	9	17	87	486
Adj No. of Lanes	1	3	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1200	4852	1511	42	1368	119	146	1108	496	33	511	458
Arrive On Green	0.66	0.94	0.94	0.02	0.28	0.28	0.04	0.31	0.31	0.02	0.28	0.28
Sat Flow, veh/h	1810	5187	1615	1810	4855	422	3510	3610	1615	1810	1805	1615
Grp Volume(v), veh/h	1112	953	153	24	470	250	124	241	9	17	87	486
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1819	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	64.4	1.7	0.8	1.6	13.6	13.7	4.2	5.9	0.5	1.1	4.4	34.0
Cycle Q Clear(g_c), s	64.4	1.7	0.8	1.6	13.6	13.7	4.2	5.9	0.5	1.1	4.4	34.0
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1200	4852	1511	42	974	512	146	1108	496	33	511	458
V/C Ratio(X)	0.93	0.20	0.10	0.58	0.48	0.49	0.85	0.22	0.02	0.52	0.17	1.06
Avail Cap(c_a), veh/h	1200	4852	1511	87	974	512	146	1108	496	75	511	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.6	0.3	0.3	58.0	35.8	35.9	57.1	30.9	29.0	58.4	32.4	43.0
Incr Delay (d2), s/veh	12.0	0.1	0.1	4.7	1.7	3.3	33.2	0.5	0.1	4.7	0.7	59.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	35.8	0.8	0.4	0.8	6.7	7.3	2.7	3.0	0.2	0.6	2.3	22.7
LnGrp Delay(d),s/veh	29.6	0.4	0.4	62.7	37.5	39.2	90.3	31.3	29.0	63.1	33.1	102.5
LnGrp LOS	C	A	A	E	D	D	F	C	C	E	C	F
Approach Vol, veh/h		2218			744			374			590	
Approach Delay, s/veh		15.1			38.9			50.8			91.2	
Approach LOS		B			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	119.6	9.2	40.2	87.0	39.6	6.4	43.0
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	6.2	5.8	* 5.8	* 4.2	* 6.2
Max Green Setting (Gmax), s	* 5.8	54.8	* 5	34.0	26.8	* 34	* 5	* 35
Max Q Clear Time (g_c+I1), s	3.6	3.7	6.2	36.0	66.4	15.7	3.1	7.9
Green Ext Time (p_c), s	0.0	8.2	0.0	0.0	0.0	2.6	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	34.4
HCM 2010 LOS	C

Notes

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HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 6/28/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	713	132	704	203	0	0	0	0	874	3	313
Future Volume (veh/h)	0	713	132	704	203	0	0	0	0	874	3	313
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	810	140	800	231	0				993	3	283
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	752	336	784	2467	0				677	2	606
Arrive On Green	0.00	0.21	0.21	0.14	0.23	0.00				0.38	0.38	0.38
Sat Flow, veh/h	0	3705	1615	1810	3705	0				1804	5	1615
Grp Volume(v), veh/h	0	810	140	800	231	0				996	0	283
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1810	1805	0				1810	0	1615
Q Serve(g_s), s	0.0	25.0	9.0	52.0	6.1	0.0				45.0	0.0	15.9
Cycle Q Clear(g_c), s	0.0	25.0	9.0	52.0	6.1	0.0				45.0	0.0	15.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	752	336	784	2467	0				679	0	606
V/C Ratio(X)	0.00	1.08	0.42	1.02	0.09	0.00				1.47	0.00	0.47
Avail Cap(c_a), veh/h	0	752	336	784	2467	0				679	0	606
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.86	0.86	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	47.5	41.2	51.4	17.1	0.0				37.5	0.0	28.4
Incr Delay (d2), s/veh	0.0	55.5	3.8	35.1	0.1	0.0				218.4	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.2	4.4	33.7	3.1	0.0				63.6	0.0	7.2
LnGrp Delay(d),s/veh	0.0	103.0	44.9	86.5	17.1	0.0				255.9	0.0	29.0
LnGrp LOS		F	D	F	B					F		C
Approach Vol, veh/h		950			1031						1279	
Approach Delay, s/veh		94.5			71.0						205.7	
Approach LOS		F			E						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	57.5	30.0		50.0		87.5		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	35.5	* 25		45.0		65.0		
Max Q Clear Time (g_c+I1), s	54.0	27.0		47.0		8.1		
Green Ext Time (p_c), s	0.0	0.0		0.0		2.1		

Intersection Summary	
HCM 2010 Ctrl Delay	130.7
HCM 2010 LOS	F

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
2: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	509	1077	0	0	857	1695	51	0	297	0	0	0
Future Volume (veh/h)	509	1077	0	0	857	1695	51	0	297	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	606	1282	0	0	1020	2007	61	0	186			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	783	3788	0	0	2076	917	226	0	202			
Arrive On Green	0.87	1.00	0.00	0.00	0.57	0.57	0.13	0.00	0.13			
Sat Flow, veh/h	1810	3705	0	0	3705	1595	1810	0	1615			
Grp Volume(v), veh/h	606	1282	0	0	1020	2007	61	0	186			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1595	1810	0	1615			
Q Serve(g_s), s	16.4	0.0	0.0	0.0	20.1	69.0	3.7	0.0	13.7			
Cycle Q Clear(g_c), s	16.4	0.0	0.0	0.0	20.1	69.0	3.7	0.0	13.7			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	783	3788	0	0	2076	917	226	0	202			
V/C Ratio(X)	0.77	0.34	0.00	0.00	0.49	2.19	0.27	0.00	0.92			
Avail Cap(c_a), veh/h	783	3788	0	0	2076	917	226	0	202			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	5.7	0.0	0.0	0.0	15.1	25.5	47.5	0.0	51.9			
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.8	538.4	2.9	0.0	45.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.5	0.0	0.0	0.0	10.2	167.2	2.0	0.0	8.7			
LnGrp Delay(d),s/veh	6.1	0.0	0.0	0.0	15.9	563.9	50.5	0.0	97.5			
LnGrp LOS	A	A			B	F	D		F			
Approach Vol, veh/h		1888			3027			247				
Approach Delay, s/veh		2.0			379.2			85.9				
Approach LOS		A			F			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		130.9			56.9	74.0		20.0
Change Period (Y+Rc), s		5.0			5.0	* 5		5.0
Max Green Setting (Gmax), s		95.0			22.5	* 69		15.0
Max Q Clear Time (g_c+I1), s		2.0			18.4	71.0		15.7
Green Ext Time (p_c), s		8.2			2.6	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	227.2
HCM 2010 LOS	F

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	9.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	22	1352	2457	7	15	93
Future Vol, veh/h	22	1352	2457	7	15	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	25	1536	2792	8	17	106

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2792	0	-	0	3610	1396
Stage 1	-	-	-	-	2792	-
Stage 2	-	-	-	-	818	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	142	-	-	-	*~ 0	133
Stage 1	-	-	-	-	*33	-
Stage 2	-	-	-	-	*490	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	142	-	-	-	*0	133
Mov Cap-2 Maneuver	-	-	-	-	*0	-
Stage 1	-	-	-	-	*33	-
Stage 2	-	-	-	-	*490	-

Approach	EB	WB	SB
HCM Control Delay, s	17.6	0	122.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	142	-	-	-	133
HCM Lane V/C Ratio	0.176	-	-	-	0.923
HCM Control Delay (s)	35.7	17.3	-	-	122.1
HCM Lane LOS	E	C	-	-	F
HCM 95th %tile Q(veh)	0.6	-	-	-	6.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
4: Patterson Avenue & Harley Knox Boulevard 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1287	26	41	2269	3	71	4	21	7	2	94
Future Volume (veh/h)	20	1287	26	41	2269	3	71	4	21	7	2	94
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	1514	31	48	2669	3	84	5	20	8	2	104
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	1979	885	62	2020	904	357	26	74	402	95	471
Arrive On Green	0.02	0.55	0.55	0.03	0.56	0.56	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1810	3610	1615	1810	3610	1615	1042	88	254	1192	325	1615
Grp Volume(v), veh/h	24	1514	31	48	2669	3	109	0	0	10	0	104
Grp Sat Flow(s),veh/h/ln	1810	1805	1615	1810	1805	1615	1384	0	0	1517	0	1615
Q Serve(g_s), s	1.6	39.2	1.1	3.2	67.1	0.1	6.5	0.0	0.0	0.0	0.0	5.9
Cycle Q Clear(g_c), s	1.6	39.2	1.1	3.2	67.1	0.1	7.1	0.0	0.0	0.4	0.0	5.9
Prop In Lane	1.00		1.00	1.00		1.00	0.77		0.18	0.80		1.00
Lane Grp Cap(c), veh/h	42	1979	885	62	2020	904	457	0	0	497	0	471
V/C Ratio(X)	0.58	0.77	0.04	0.77	1.32	0.00	0.24	0.00	0.00	0.02	0.00	0.22
Avail Cap(c_a), veh/h	75	1979	885	89	2020	904	457	0	0	497	0	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.0	21.1	12.5	57.5	26.4	11.7	32.5	0.0	0.0	30.3	0.0	32.2
Incr Delay (d2), s/veh	4.7	2.9	0.1	13.3	148.2	0.0	1.2	0.0	0.0	0.1	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	20.1	0.5	1.8	74.7	0.0	2.9	0.0	0.0	0.2	0.0	2.7
LnGrp Delay(d),s/veh	62.7	24.0	12.6	70.8	174.6	11.7	33.8	0.0	0.0	30.3	0.0	33.3
LnGrp LOS	E	C	B	E	F	B	C			C		C
Approach Vol, veh/h		1569			2720			109			114	
Approach Delay, s/veh		24.3			172.6			33.8			33.0	
Approach LOS		C			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.3	71.6		40.1	7.0	72.9		40.1
Change Period (Y+Rc), s	* 4.2	5.8		5.1	* 4.2	5.8		5.1
Max Green Setting (Gmax), s	* 5.9	64.0		35.0	* 5	64.9		35.0
Max Q Clear Time (g_c+I1), s	5.2	41.2		7.9	3.6	69.1		9.1
Green Ext Time (p_c), s	0.0	21.2		0.6	0.0	0.0		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	114.1
HCM 2010 LOS	F

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	1276	20	0	2298	0	7
Future Vol, veh/h	1276	20	0	2298	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1467	23	0	2641	0	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1490	0	2535	745
Stage 1	-	-	-	-	1478	-
Stage 2	-	-	-	-	1057	-
Critical Hdwy	-	-	5.3	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	-	-	3.1	-	3.8	3.9
Pot Cap-1 Maneuver	-	-	750	-	*49	*623
Stage 1	-	-	-	-	*619	-
Stage 2	-	-	-	-	*384	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	750	-	*49	*623
Mov Cap-2 Maneuver	-	-	-	-	*49	-
Stage 1	-	-	-	-	*619	-
Stage 2	-	-	-	-	*384	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.9
HCM LOS			B

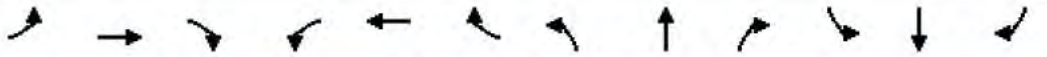
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	623	-	-	750	-
HCM Lane V/C Ratio	0.013	-	-	-	-
HCM Control Delay (s)	10.9	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)

6: Indian Street & Nandina Avenue — 1/6/2016



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	102	458	221	71	37	148	754	117	71	1461	68
Future Volume (veh/h)	39	102	458	221	71	37	148	754	117	71	1461	68
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	134	433	291	93	16	195	992	120	93	1922	57
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	66	380	468	208	554	454	163	1414	171	925	3131	92
Arrive On Green	0.04	0.20	0.20	0.12	0.29	0.29	0.09	0.44	0.44	0.51	0.87	0.87
Sat Flow, veh/h	1810	1900	1611	1810	1900	1557	1810	3238	392	1810	3581	106
Grp Volume(v), veh/h	51	134	433	291	93	16	195	553	559	93	964	1015
Grp Sat Flow(s),veh/h/ln	1810	1900	1611	1810	1900	1557	1810	1805	1825	1810	1805	1881
Q Serve(g_s), s	3.4	7.3	24.0	13.8	4.4	0.7	10.8	29.8	29.9	3.2	17.3	17.6
Cycle Q Clear(g_c), s	3.4	7.3	24.0	13.8	4.4	0.7	10.8	29.8	29.9	3.2	17.3	17.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		0.06
Lane Grp Cap(c), veh/h	66	380	468	208	554	454	163	788	797	925	1579	1645
V/C Ratio(X)	0.77	0.35	0.93	1.40	0.17	0.04	1.20	0.70	0.70	0.10	0.61	0.62
Avail Cap(c_a), veh/h	133	380	468	208	554	454	163	788	797	925	1579	1645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.3	41.3	124.3	53.1	31.6	19.0	54.6	27.4	27.5	15.1	2.0	2.1
Incr Delay (d2), s/veh	6.9	0.2	24.2	205.7	0.1	0.0	133.4	5.2	5.1	0.0	1.8	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.9	3.1	18.8	2.3	0.3	11.4	15.9	16.2	1.6	9.1	9.5
LnGrp Delay(d),s/veh	64.2	41.5	148.4	258.8	31.7	19.0	188.0	32.6	32.6	15.1	3.8	3.8
LnGrp LOS	E	D	F	F	C	B	F	C	C	B	A	A
Approach Vol, veh/h		618			400			1307			2072	
Approach Delay, s/veh		118.3			196.4			55.8			4.3	
Approach LOS		F			F			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	69.2	58.6	19.6	29.8	15.0	112.8	8.6	40.8
Change Period (Y+Rc), s	6.2	* 6.2	5.8	* 5.8	* 4.2	6.2	* 4.2	5.8
Max Green Setting (Gmax), s	9.4	* 52	13.8	* 24	* 11	51.0	* 8.8	29.0
Max Q Clear Time (g_c+I1), s	5.2	31.9	15.8	26.0	12.8	19.6	5.4	6.4
Green Ext Time (p_c), s	2.6	4.0	0.0	0.0	0.0	11.3	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	53.1
HCM 2010 LOS	D

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	41	14	1011	51	16	2045
Future Vol, veh/h	41	14	1011	51	16	2045
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	210	0	-	-	120	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	53	18	1313	66	21	2656

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	4043	1346	0	0	1379	0
Stage 1	1346	-	-	-	-	-
Stage 2	2697	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	-	187	-	-	504	-
Stage 1	245	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %	2		-	-		-
Mov Cap-1 Maneuver	-	187	-	-	504	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	245	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s		0	0.1
HCM LOS	-		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	187	504	-
HCM Lane V/C Ratio	-	-	-	0.097	0.041	-
HCM Control Delay (s)	-	-	-	26.3	12.4	-
HCM Lane LOS	-	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	-	0.3	0.1	-

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	18	0	28	7	0	4	14	1040	2	1	2076	9
Future Vol, veh/h	18	0	28	7	0	4	14	1040	2	1	2076	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	50	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	20	0	30	8	0	4	15	1130	2	1	2257	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2860	3427	1133	2292	3430	566	2266	0	0	1133	0	0
Stage 1	2264	2264	-	1162	1162	-	-	-	-	-	-	-
Stage 2	596	1163	-	1130	2268	-	-	-	-	-	-	-
Critical Hdwy	5.2	6.5	5.2	5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	*~ 18	*0	*206	*195	*0	473	*309	-	-	624	-	-
Stage 1	*194	*170	-	*342	*272	-	-	-	-	-	-	-
Stage 2	*462	*271	-	*195	*170	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	*~ 17	*0	*206	*159	*0	473	*309	-	-	624	-	-
Mov Cap-2 Maneuver	*159	*128	-	*143	*120	-	-	-	-	-	-	-
Stage 1	*185	*170	-	*325	*259	-	-	-	-	-	-	-
Stage 2	*436	*258	-	*166	*170	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	31.5	25	0.2	0
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 309	-	-	185	192	624	-	-
HCM Lane V/C Ratio	0.049	-	-	0.27	0.062	0.002	-	-
HCM Control Delay (s)	17.3	-	-	31.5	25	10.8	-	-
HCM Lane LOS	C	-	-	D	D	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	1	0.2	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	6	58	31	1048	2102	2
Future Vol, veh/h	6	58	31	1048	2102	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	63	34	1139	2285	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2923	1143	2287	0	-	0
Stage 1	2286	-	-	-	-	-
Stage 2	637	-	-	-	-	-
Critical Hdwy	5.2	5.2	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	*13	*206	*309	-	-	-
Stage 1	*194	-	-	-	-	-
Stage 2	*494	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	*11	*206	*309	-	-	-
Mov Cap-2 Maneuver	*127	-	-	-	-	-
Stage 1	*194	-	-	-	-	-
Stage 2	*440	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	33.4	0.5	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	* 309	-	195	-	-
HCM Lane V/C Ratio	0.109	-	0.357	-	-
HCM Control Delay (s)	18.1	-	33.4	-	-
HCM Lane LOS	C	-	D	-	-
HCM 95th %tile Q(veh)	0.4	-	1.5	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)

10: Indian Street & Harley Knox Boulevard — 6/24/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	717	488	112	19	863	37	168	205	27	63	238	1268
Future Volume (veh/h)	717	488	112	19	863	37	168	205	27	63	238	1268
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	874	595	128	23	1052	34	205	250	23	77	290	1463
Adj No. of Lanes	1	3	1	1	3	0	2	2	1	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1523	5797	1805	40	1471	48	170	1173	524	81	581	519
Arrive On Green	0.84	1.00	1.00	0.02	0.28	0.28	0.05	0.33	0.33	0.05	0.32	0.32
Sat Flow, veh/h	1810	5187	1615	1810	5162	167	3510	3610	1614	1810	1805	1615
Grp Volume(v), veh/h	874	595	128	23	705	381	205	250	23	77	290	1463
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1871	1755	1805	1614	1810	1805	1615
Q Serve(g_s), s	17.8	0.0	0.0	1.5	22.0	22.0	5.8	6.0	1.2	5.1	15.6	38.6
Cycle Q Clear(g_c), s	17.8	0.0	0.0	1.5	22.0	22.0	5.8	6.0	1.2	5.1	15.6	38.6
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1523	5797	1805	40	986	533	170	1173	524	81	581	519
V/C Ratio(X)	0.57	0.10	0.07	0.57	0.71	0.72	1.21	0.21	0.04	0.95	0.50	2.82
Avail Cap(c_a), veh/h	1523	5797	1805	86	986	533	170	1173	524	81	581	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	2.9	0.0	0.0	58.1	38.5	38.5	57.1	29.4	27.7	57.2	32.9	40.7
Incr Delay (d2), s/veh	0.3	0.0	0.1	4.6	4.4	8.0	136.1	0.4	0.2	80.6	3.1	822.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	0.0	0.0	0.8	11.1	12.5	6.0	3.1	0.5	4.4	8.2	135.9
LnGrp Delay(d),s/veh	3.3	0.0	0.1	62.7	42.9	46.5	193.2	29.8	27.9	137.7	35.9	863.3
LnGrp LOS	A	A	A	E	D	D	F	C	C	F	D	F
Approach Vol, veh/h		1597			1109			478			1830	
Approach Delay, s/veh		1.8			44.6			99.8			701.7	
Approach LOS		A			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	140.9	10.0	44.8	107.8	40.0	9.6	45.2
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	6.2	5.8	* 5.8	* 4.2	* 6.2
Max Green Setting (Gmax), s	* 5.7	50.3	* 5.8	37.8	21.8	* 34	* 5.4	* 39
Max Q Clear Time (g_c+I1), s	3.5	2.0	7.8	40.6	19.8	24.0	7.1	8.0
Green Ext Time (p_c), s	0.0	4.4	0.0	0.0	0.7	3.3	0.0	17.3

Intersection Summary	
HCM 2010 Ctrl Delay	276.0
HCM 2010 LOS	F

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 6.3:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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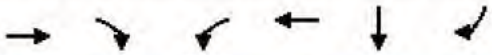
Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	788	48	336	368	1663	405
v/c Ratio	1.09	0.13	1.54	0.28	1.65	0.41
Control Delay	106.1	6.7	286.8	13.0	319.5	8.7
Queue Delay	94.5	0.0	0.0	0.0	0.1	0.0
Total Delay	200.7	6.7	286.8	13.0	319.5	8.7
Queue Length 50th (ft)	~362	0	~366	58	~1867	81
Queue Length 95th (ft)	#488	22	#506	81	#2131	149
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	722	374	218	1293	1010	987
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	703	0	0	0	13	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	41.47	0.13	1.54	0.28	1.67	0.41

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	503	2057	629	968	112	467
v/c Ratio	1.03	0.85	0.48	1.02	0.25	1.04
Control Delay	96.0	15.9	30.6	49.5	37.8	90.2
Queue Delay	29.0	48.0	0.0	0.0	0.0	0.0
Total Delay	125.0	63.9	30.6	49.5	37.8	90.2
Queue Length 50th (ft)	367	414	195	~455	70	~349
Queue Length 95th (ft)	m309	m270	240	#685	117	#528
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	488	2406	1323	953	453	451
Starvation Cap Reductn	182	1150	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.64	1.64	0.48	1.02	0.25	1.04

Intersection Summary

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Queue shown is maximum after two cycles.

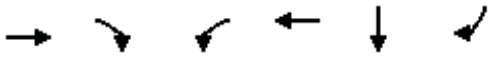
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Queues — Indian Street Commerce Center TIA (JN09912)

1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 6/28/2016



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	810	150	777	231	956	356
v/c Ratio	1.08	0.39	1.46	0.12	1.41	0.48
Control Delay	100.6	25.7	240.9	5.7	223.6	13.4
Queue Delay	13.5	0.0	0.0	0.0	0.3	0.0
Total Delay	114.1	25.7	240.9	5.7	223.8	13.4
Queue Length 50th (ft)	~368	54	~829	25	~994	78
Queue Length 95th (ft)	#476	113	#1039	35	#1205	157
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	752	389	533	1955	679	737
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	333	0	0	0	26	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.93	0.39	1.46	0.12	1.46	0.48

Intersection Summary

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95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	606	1240	996	1956	61	350
v/c Ratio	1.79	0.43	0.48	1.76	0.27	1.09
Control Delay	396.7	11.4	15.9	364.1	51.1	105.4
Queue Delay	1.4	50.2	0.4	0.0	0.0	0.0
Total Delay	398.1	61.6	16.4	364.1	51.1	105.4
Queue Length 50th (ft)	~630	303	226	~2115	43	~204
Queue Length 95th (ft)	m#502	m201	252	#2149	81	#345
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	338	2857	2075	1113	225	322
Starvation Cap Reductn	38	1871	0	0	0	0
Spillback Cap Reductn	0	0	556	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	2.02	1.26	0.66	1.76	0.27	1.09

Intersection Summary

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Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 6.4:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Queues — Indian Street Commerce Center TIA (JN09912)

1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 1/6/2016

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	788	48	344	368	1740	405
v/c Ratio	1.09	0.13	1.58	0.28	1.72	0.41
Control Delay	106.1	6.7	302.3	13.2	353.0	9.0
Queue Delay	626.3	0.0	0.0	0.0	0.1	0.0
Total Delay	732.4	6.7	302.3	13.2	353.1	9.0
Queue Length 50th (ft)	~362	0	~380	58	~1991	85
Queue Length 95th (ft)	#488	22	#520	83	#2255	153
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	722	374	218	1293	1010	984
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	722	0	0	0	22	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	788.00	0.13	1.58	0.28	1.76	0.41

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	503	2138	637	989	112	476
v/c Ratio	1.03	0.89	0.48	1.04	0.25	1.06
Control Delay	96.3	16.3	30.7	56.2	37.8	95.7
Queue Delay	29.0	47.6	0.0	0.0	0.0	0.0
Total Delay	125.3	63.9	30.7	56.2	37.8	95.7
Queue Length 50th (ft)	365	427	197	~526	70	~364
Queue Length 95th (ft)	m306	m270	242	#720	117	#544
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	488	2406	1323	953	453	451
Starvation Cap Reductn	182	1149	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.64	1.70	0.48	1.04	0.25	1.06

Intersection Summary

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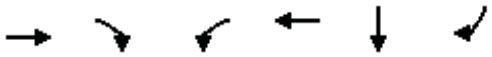
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Queues
Indian Street Commerce Center TIA (JN09912)
1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.
6/28/2016



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	810	150	800	231	996	356
v/c Ratio	1.08	0.39	1.50	0.12	1.47	0.49
Control Delay	100.6	25.7	259.4	5.7	248.5	14.2
Queue Delay	13.5	0.0	0.0	0.0	0.4	0.0
Total Delay	114.1	25.7	259.4	5.7	249.0	14.2
Queue Length 50th (ft)	~368	54	~867	25	~1058	84
Queue Length 95th (ft)	#476	113	#1077	35	#1268	163
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	752	389	533	1955	679	731
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	333	0	0	0	41	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.93	0.39	1.50	0.12	1.56	0.49

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	606	1282	1020	2018	61	354
v/c Ratio	1.79	0.45	0.49	1.81	0.27	1.13
Control Delay	396.8	11.8	16.1	388.8	51.1	120.3
Queue Delay	1.4	50.2	0.5	0.0	0.0	0.0
Total Delay	398.1	62.0	16.6	388.8	51.1	120.3
Queue Length 50th (ft)	~629	321	234	~2216	43	~224
Queue Length 95th (ft)	m#500	m203	260	#2244	81	#365
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	338	2857	2075	1113	225	314
Starvation Cap Reductn	38	1869	0	0	0	0
Spillback Cap Reductn	0	0	558	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	2.02	1.30	0.67	1.81	0.27	1.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 6.5:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

California MUTCD 2014 Edition
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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

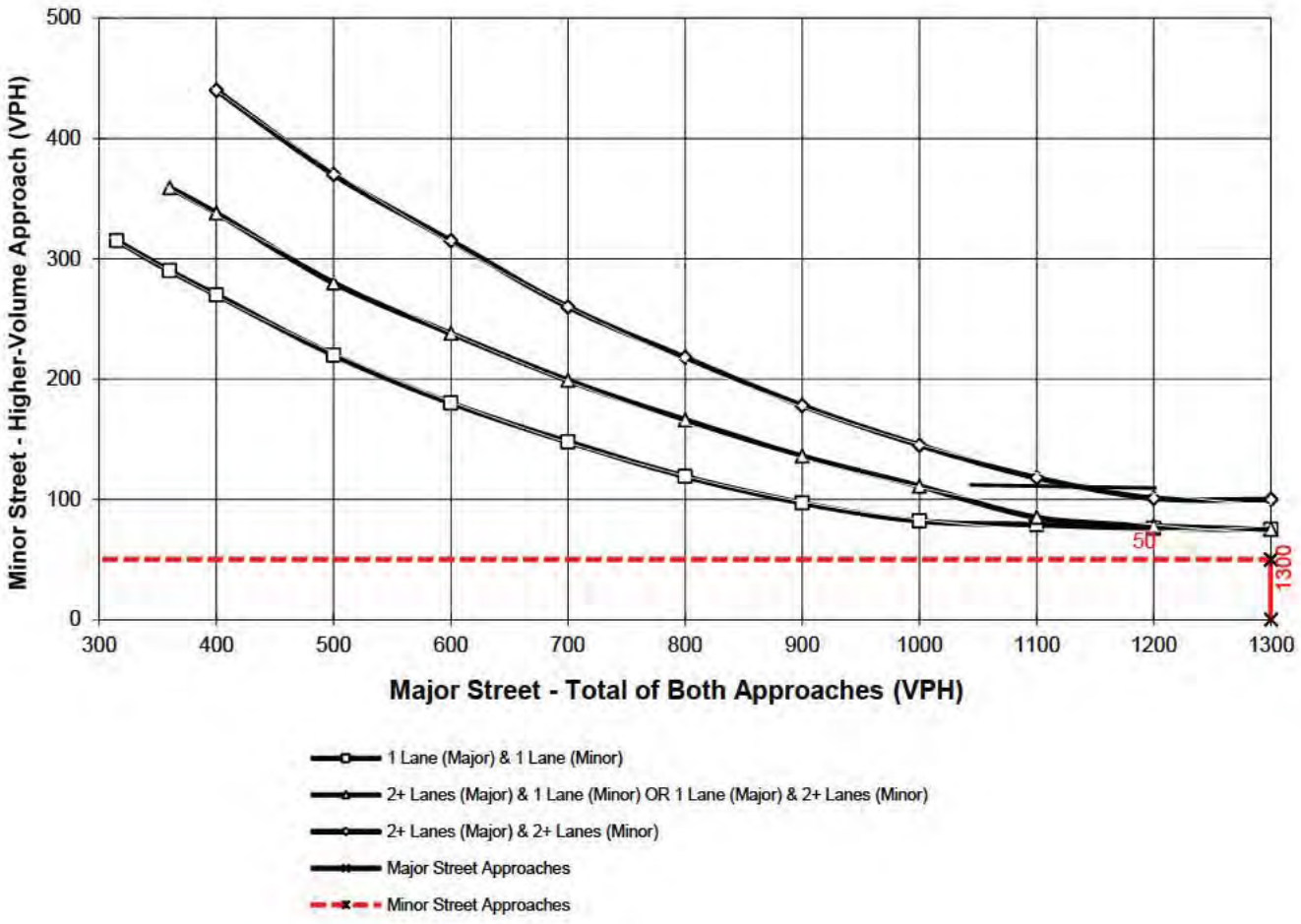
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2020 Without Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Indian Street** — Total of Both Approaches (VPH) = **3093**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Grove View Road** — High Volume Approach (VPH) = **50**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 6.6:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

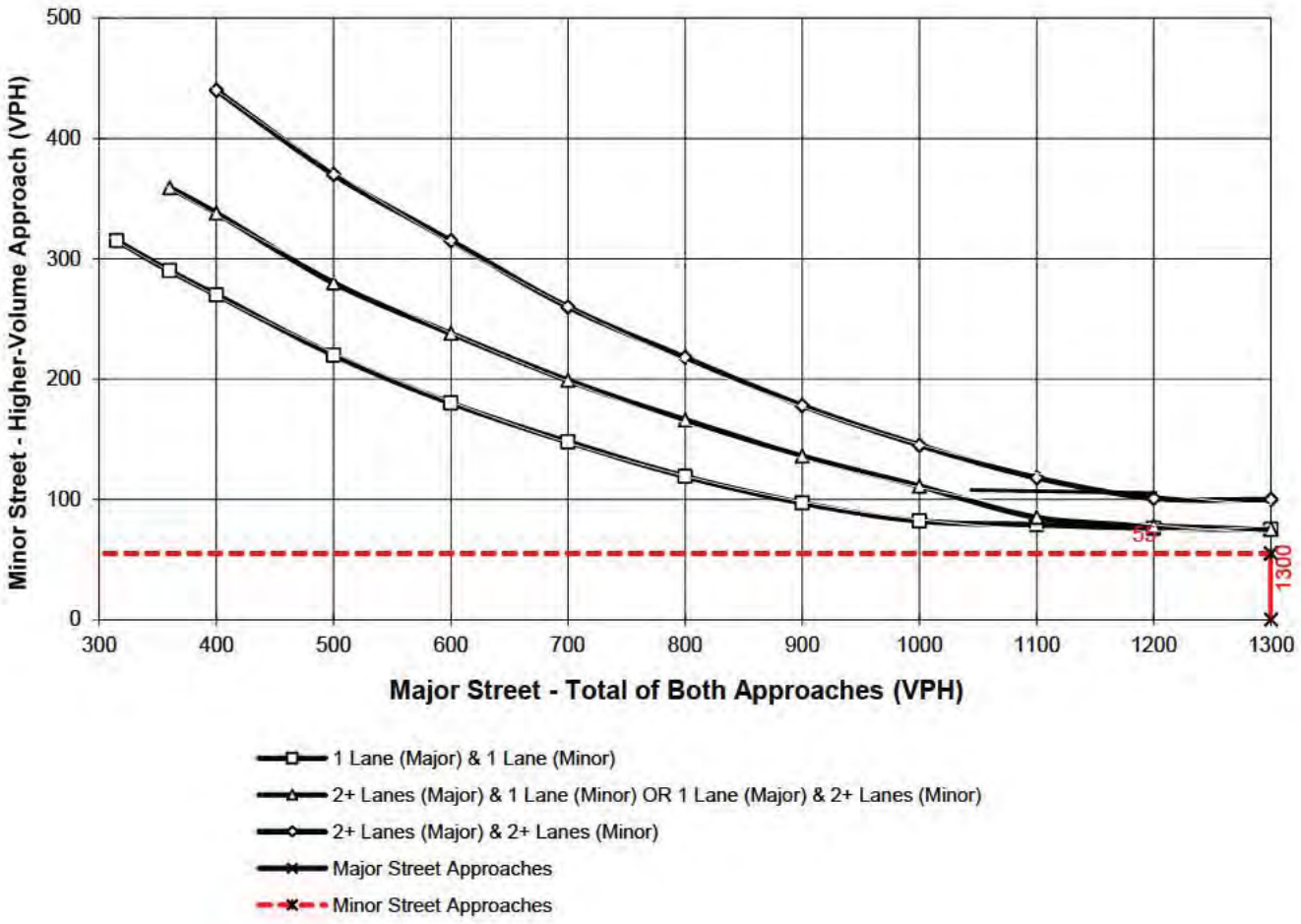
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2020 With Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Indian Street**
Total of Both Approaches (VPH) = **3123**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Grove View Road**
High Volume Approach (VPH) = **55**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

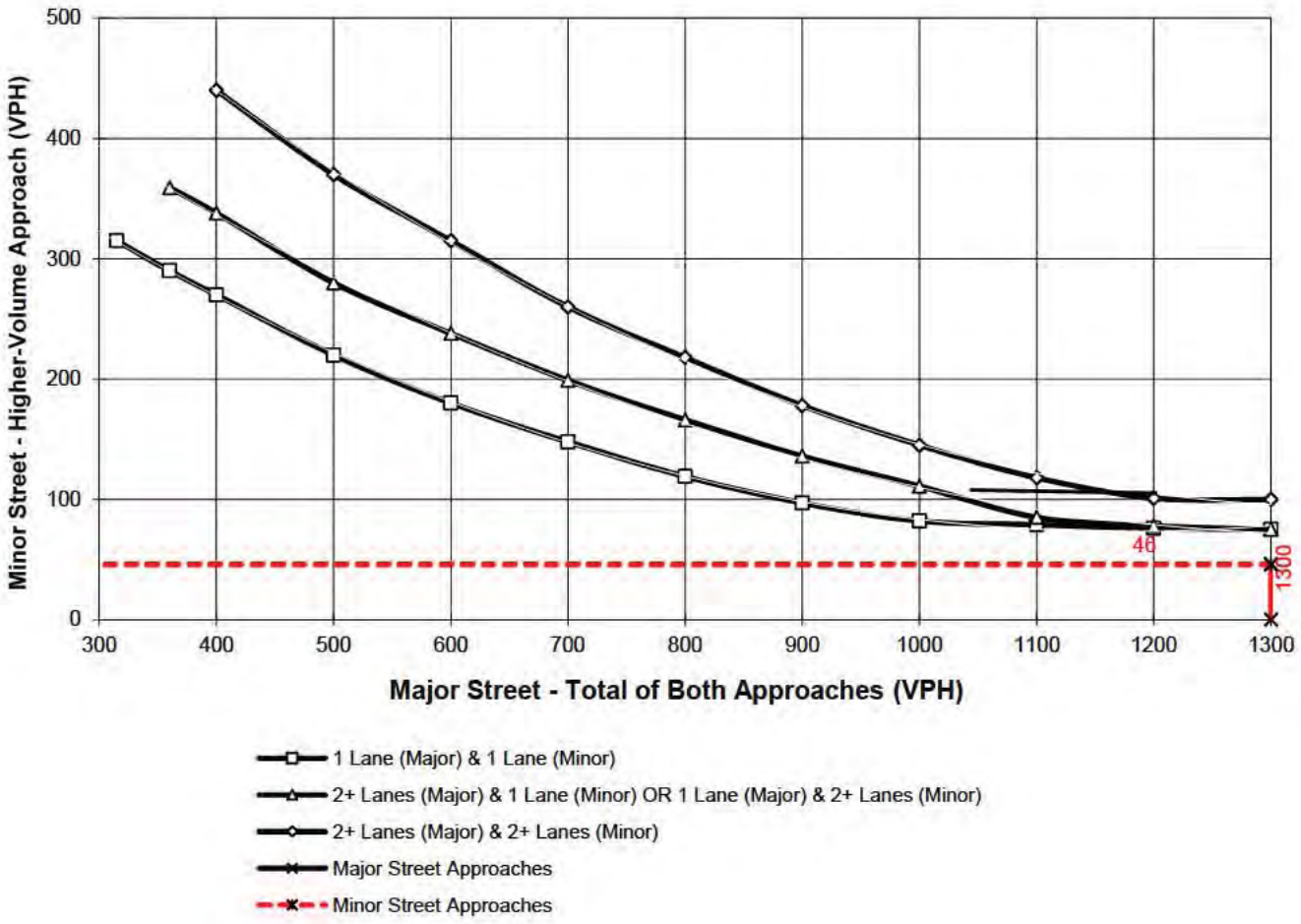
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2020 WP Conditions - Weekday PM Peak Hour**

Major Street Name = **Indian Street**
Total of Both Approaches (VPH) = **3142**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Driveway 1**
High Volume Approach (VPH) = **46**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	2020 WP
				CALC BMB	DATE 01/06/16
				CHK CHS	DATE 01/06/16

Jurisdiction: City of Moreno Valley
Major Street: Indian Street
Minor Street: Driveway 1
Critical Approach Speed (Major) 50 mph
Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = 2 lane
Minor Street Approach Lanes 1 lane

Major Street Future ADT = 24,552 vpd
Minor Street Future ADT = 290 vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √
or
In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
CONDITION A - Minimum Vehicular Volume (RURAL XX)				
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 / 1	8,000	5,600	2,400	1,680
2 + 24,552 / 1 290	9,600	6,720 *	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 / 1	12,000	8,400	1,200	850
2 + 24,552 / 1 290	14,400	10,080 *	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B Satisfied / Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ..... A 17% B 34%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

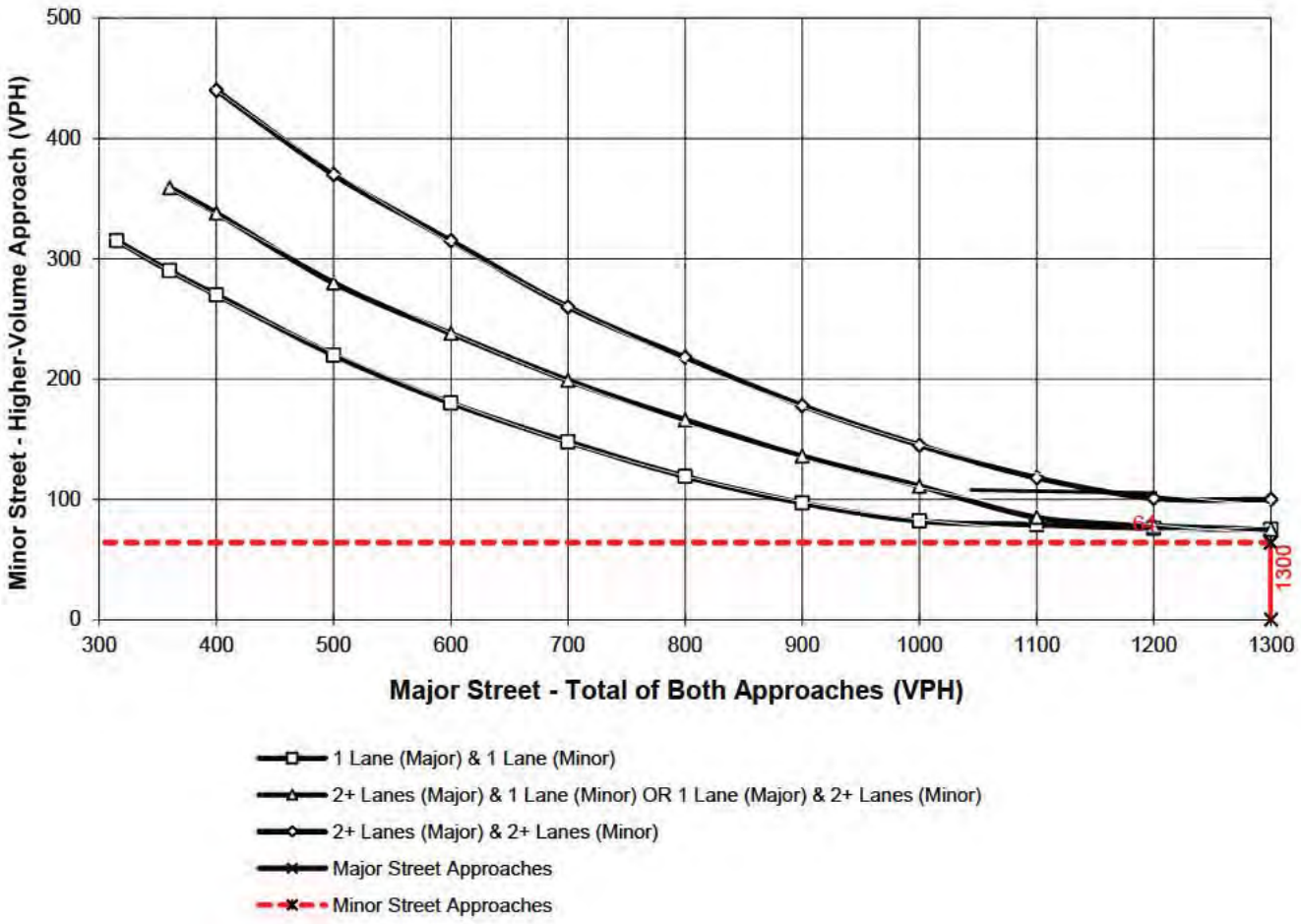
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2020 WP Conditions - Weekday AM Peak Hour**

Major Street Name = **Indian Street**
Total of Both Approaches (VPH) = **2721**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Driveway 1**
High Volume Approach (VPH) = **64**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	2020 WP
				CALC BMB	DATE 01/06/16
				CHK CHS	DATE 01/06/16

Jurisdiction: City of Moreno Valley
Major Street: Indian Street
Minor Street: Driveway 2
Critical Approach Speed (Major) 50 mph
Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = 2 lane
Minor Street Approach Lanes 1 lane

Major Street Future ADT = 24,989 vpd
Minor Street Future ADT = 447 vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √
or
In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
CONDITION A - Minimum Vehicular Volume — Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 / 1	8,000	5,600	2,400	1,680
2 + 24,989 / 1 447	9,600	6,720 *	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic — Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 / 1	12,000	8,400	1,200	850
2 + 24,989 / 1 447	14,400	10,080 *	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B — Satisfied / Not Satisfied XX				
No one condition satisfied, but following conditions fulfilled 80% of more ..... A 27% B 53%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 6.7:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	717	44	306	335	0	0	0	0	1511	3	369
Future Volume (veh/h)	0	717	44	306	335	0	0	0	0	1511	3	369
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	788	45	336	368	0				1660	3	340
Adj No. of Lanes	0	2	1	2	2	0				2	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	965	432	388	1499	0				1760	7	804
Arrive On Green	0.00	0.27	0.27	0.15	0.55	0.00				0.50	0.50	0.50
Sat Flow, veh/h	0	3705	1615	3510	3705	0				3510	14	1603
Grp Volume(v), veh/h	0	788	45	336	368	0				1660	0	343
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1755	1805	0				1755	0	1617
Q Serve(g_s), s	0.0	24.5	2.5	11.2	6.3	0.0				53.7	0.0	16.1
Cycle Q Clear(g_c), s	0.0	24.5	2.5	11.2	6.3	0.0				53.7	0.0	16.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	965	432	388	1499	0				1760	0	811
V/C Ratio(X)	0.00	0.82	0.10	0.87	0.25	0.00				0.94	0.00	0.42
Avail Cap(c_a), veh/h	0	965	432	395	1499	0				1814	0	836
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.92	0.92	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	41.2	33.1	50.3	17.1	0.0				28.3	0.0	18.9
Incr Delay (d2), s/veh	0.0	7.6	0.5	15.9	0.4	0.0				10.5	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.3	1.2	6.3	3.2	0.0				28.4	0.0	7.2
LnGrp Delay(d),s/veh	0.0	48.8	33.6	66.2	17.5	0.0				38.8	0.0	19.3
LnGrp LOS		D	C	E	B					D		B
Approach Vol, veh/h		833			704						2003	
Approach Delay, s/veh		48.0			40.8						35.4	
Approach LOS		D			D						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	17.8	37.1		65.2		54.8		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	13.5	30.0		62.0		48.0		
Max Q Clear Time (g_c+I1), s	13.2	26.5		55.7		8.3		
Green Ext Time (p_c), s	0.0	1.7		4.5		5.3		

Intersection Summary	
HCM 2010 Ctrl Delay	39.4
HCM 2010 LOS	D

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
2: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	438	1790	0	0	547	842	93	4	406	0	0	0
Future Volume (veh/h)	438	1790	0	0	547	842	93	4	406	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	503	2057	0	0	629	0	107	5	413			
Adj No. of Lanes	2	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	567	2286	0	0	1598	715	491	23	458			
Arrive On Green	0.16	0.63	0.00	0.00	0.44	0.00	0.28	0.28	0.28			
Sat Flow, veh/h	3510	3705	0	0	3705	1615	1732	81	1615			
Grp Volume(v), veh/h	503	2057	0	0	629	0	112	0	413			
Grp Sat Flow(s),veh/h/ln	1755	1805	0	0	1805	1615	1813	0	1615			
Q Serve(g_s), s	16.8	58.3	0.0	0.0	14.1	0.0	5.7	0.0	29.5			
Cycle Q Clear(g_c), s	16.8	58.3	0.0	0.0	14.1	0.0	5.7	0.0	29.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.96		1.00			
Lane Grp Cap(c), veh/h	567	2286	0	0	1598	715	514	0	458			
V/C Ratio(X)	0.89	0.90	0.00	0.00	0.39	0.00	0.22	0.00	0.90			
Avail Cap(c_a), veh/h	717	2286	0	0	1598	715	514	0	458			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.31	0.31	0.00	0.00	0.63	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	49.2	18.8	0.0	0.0	22.6	0.0	32.8	0.0	41.4			
Incr Delay (d2), s/veh	3.3	2.1	0.0	0.0	0.5	0.0	1.0	0.0	23.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.4	29.2	0.0	0.0	7.1	0.0	3.0	0.0	16.2			
LnGrp Delay(d),s/veh	52.5	20.8	0.0	0.0	23.0	0.0	33.8	0.0	65.1			
LnGrp LOS	D	C			C		C		E			
Approach Vol, veh/h		2560			629			525				
Approach Delay, s/veh		27.1			23.0			58.4				
Approach LOS		C			C			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		81.0			22.9	58.1		39.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		76.0			24.5	48.0		34.0
Max Q Clear Time (g_c+I1), s		60.3			18.8	16.1		31.5
Green Ext Time (p_c), s		11.6			0.6	18.7		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	30.8
HCM 2010 LOS	C

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	75	2122	1315	29	2	75
Future Volume (veh/h)	75	2122	1315	29	2	75
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	91	2588	1604	35	2	91
Adj No. of Lanes	1	2	2	1	0	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	116	2657	2273	1017	6	251
Arrive On Green	0.06	0.74	0.63	0.63	0.16	0.16
Sat Flow, veh/h	1810	3705	3705	1615	34	1570
Grp Volume(v), veh/h	91	2588	1604	35	94	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1615	1621	0
Q Serve(g_s), s	5.0	66.9	29.6	0.8	5.2	0.0
Cycle Q Clear(g_c), s	5.0	66.9	29.6	0.8	5.2	0.0
Prop In Lane	1.00			1.00	0.02	0.97
Lane Grp Cap(c), veh/h	116	2657	2273	1017	259	0
V/C Ratio(X)	0.78	0.97	0.71	0.03	0.36	0.00
Avail Cap(c_a), veh/h	208	2657	2273	1017	259	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.30	0.30	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.1	12.3	12.3	7.0	37.5	0.0
Incr Delay (d2), s/veh	1.3	5.2	1.9	0.1	3.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	34.3	15.1	0.4	2.6	0.0
LnGrp Delay(d),s/veh	47.4	17.5	14.2	7.1	41.3	0.0
LnGrp LOS	D	B	B	A	D	
Approach Vol, veh/h		2679	1639		94	
Approach Delay, s/veh		18.5	14.1		41.3	
Approach LOS		B	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		79.4		20.6	10.6	68.8		
Change Period (Y+Rc), s		5.8		4.6	* 4.2	5.8		
Max Green Setting (Gmax), s		73.6		16.0	* 12	57.9		
Max Q Clear Time (g_c+I1), s		68.9		7.2	7.0	31.6		
Green Ext Time (p_c), s		4.6		0.1	0.0	24.1		

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
4: Patterson Avenue & Harley Knox Boulevard 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	1953	12	12	1190	15	99	2	37	3	4	20
Future Volume (veh/h)	87	1953	12	12	1190	15	99	2	37	3	4	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	2382	13	15	1451	18	121	2	40	4	5	22
Adj No. of Lanes	1	3	1	1	3	1	0	1	0	0	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	2936	914	30	2646	824	361	13	105	241	287	471
Arrive On Green	0.07	0.57	0.57	0.02	0.51	0.51	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1810	5187	1615	1810	5187	1615	1060	45	359	679	985	1615
Grp Volume(v), veh/h	106	2382	13	15	1451	18	163	0	0	9	0	22
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1615	1464	0	0	1664	0	1615
Q Serve(g_s), s	6.9	44.2	0.4	1.0	22.8	0.7	9.8	0.0	0.0	0.0	0.0	1.2
Cycle Q Clear(g_c), s	6.9	44.2	0.4	1.0	22.8	0.7	10.5	0.0	0.0	0.4	0.0	1.2
Prop In Lane	1.00		1.00	1.00		1.00	0.74		0.25	0.44		1.00
Lane Grp Cap(c), veh/h	131	2936	914	30	2646	824	479	0	0	529	0	471
V/C Ratio(X)	0.81	0.81	0.01	0.51	0.55	0.02	0.34	0.00	0.00	0.02	0.00	0.05
Avail Cap(c_a), veh/h	157	2936	914	75	2646	824	479	0	0	529	0	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.8	20.9	11.4	58.5	20.0	14.6	33.8	0.0	0.0	30.2	0.0	30.5
Incr Delay (d2), s/veh	19.3	2.6	0.0	4.9	0.8	0.0	1.9	0.0	0.0	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	21.6	0.2	0.5	11.1	0.3	4.6	0.0	0.0	0.2	0.0	0.6
LnGrp Delay(d),s/veh	74.1	23.4	11.4	63.4	20.8	14.6	35.7	0.0	0.0	30.3	0.0	30.7
LnGrp LOS	E	C	B	E	C	B	D			C		C
Approach Vol, veh/h		2501			1484			163			31	
Approach Delay, s/veh		25.5			21.2			35.7			30.6	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.2	73.7		40.1	12.9	67.0		40.1
Change Period (Y+Rc), s	* 4.2	5.8		5.1	* 4.2	5.8		5.1
Max Green Setting (Gmax), s	* 5	64.9		35.0	* 10	59.5		35.0
Max Q Clear Time (g_c+I1), s	3.0	46.2		3.2	8.9	24.8		12.5
Green Ext Time (p_c), s	0.0	16.6		0.7	0.0	28.2		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	24.4
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	16	6	1846	33	1	722
Future Volume (veh/h)	16	6	1846	33	1	722
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	19	7	2198	39	1	860
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	96	86	2827	50	2	2985
Arrive On Green	0.05	0.05	0.78	0.78	0.00	0.83
Sat Flow, veh/h	1810	1615	3724	64	1810	3705
Grp Volume(v), veh/h	19	7	1090	1147	1	860
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1889	1810	1805
Q Serve(g_s), s	0.9	0.4	30.3	30.8	0.0	4.9
Cycle Q Clear(g_c), s	0.9	0.4	30.3	30.8	0.0	4.9
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	96	86	1406	1471	2	2985
V/C Ratio(X)	0.20	0.08	0.78	0.78	0.40	0.29
Avail Cap(c_a), veh/h	205	183	1406	1471	103	2985
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.93	0.93
Uniform Delay (d), s/veh	40.8	40.5	5.6	5.6	44.9	1.8
Incr Delay (d2), s/veh	0.4	0.1	4.2	4.2	32.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.2	16.2	17.3	0.0	2.5
LnGrp Delay(d),s/veh	41.1	40.7	9.8	9.8	77.3	2.0
LnGrp LOS	D	D	A	A	E	A
Approach Vol, veh/h	26		2237			861
Approach Delay, s/veh	41.0		9.8			2.1
Approach LOS	D		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	4.3	76.3				80.6		9.4
Change Period (Y+Rc), s	* 4.2	6.2				6.2		4.6
Max Green Setting (Gmax), s	* 5.1	59.7				69.0		10.2
Max Q Clear Time (g_c+I1), s	2.0	32.8				6.9		2.9
Green Ext Time (p_c), s	0.0	18.4				29.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.9
HCM 2010 LOS	A

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary
10: Indian Street & Harley Knox Boulevard

Indian Street Commerce Center TIA (JN09912)
6/24/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	942	877	148	22	609	47	114	222	21	11	80	451
Future Volume (veh/h)	942	877	148	22	609	47	114	222	21	11	80	451
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1024	953	153	24	662	44	124	241	9	12	87	458
Adj No. of Lanes	2	3	1	1	3	0	2	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2130	4706	1465	42	1540	102	146	1124	503	25	1023	1438
Arrive On Green	0.61	0.91	0.91	0.02	0.31	0.31	0.04	0.31	0.31	0.01	0.28	0.28
Sat Flow, veh/h	3510	5187	1615	1810	4967	328	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	1024	953	153	24	460	246	124	241	9	12	87	458
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1729	1837	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	19.4	2.5	1.2	1.6	12.7	12.8	4.2	5.9	0.5	0.8	2.1	3.6
Cycle Q Clear(g_c), s	19.4	2.5	1.2	1.6	12.7	12.8	4.2	5.9	0.5	0.8	2.1	3.6
Prop In Lane	1.00		1.00	1.00		0.18	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2130	4706	1465	42	1072	570	146	1124	503	25	1023	1438
V/C Ratio(X)	0.48	0.20	0.10	0.58	0.43	0.43	0.85	0.21	0.02	0.48	0.09	0.32
Avail Cap(c_a), veh/h	2130	4706	1465	87	1072	570	146	1124	503	75	1023	1438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.1	0.6	0.6	58.0	32.9	33.0	57.1	30.5	28.6	58.8	31.6	11.2
Incr Delay (d2), s/veh	0.1	0.1	0.1	4.7	1.3	2.4	33.2	0.4	0.1	5.3	0.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	1.2	0.6	0.8	6.3	6.9	2.7	3.0	0.2	0.4	1.1	7.7
LnGrp Delay(d),s/veh	13.2	0.7	0.7	62.7	34.2	35.4	90.3	30.9	28.7	64.1	31.7	11.8
LnGrp LOS	B	A	A	E	C	D	F	C	C	E	C	B
Approach Vol, veh/h		2130			730			374			557	
Approach Delay, s/veh		6.7			35.5			50.6			16.1	
Approach LOS		A			D			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	115.0	9.2	40.2	78.9	43.0	5.8	43.6
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	6.2	5.8	* 5.8	* 4.2	* 6.2
Max Green Setting (Gmax), s	* 5.8	54.8	* 5	34.0	23.4	* 37	* 5	* 35
Max Q Clear Time (g_c+I1), s	3.6	4.5	6.2	5.6	21.4	14.8	2.8	7.9
Green Ext Time (p_c), s	0.0	8.0	0.0	2.0	0.7	2.6	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	713	132	684	203	0	0	0	0	839	3	313
Future Volume (veh/h)	0	713	132	684	203	0	0	0	0	839	3	313
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	810	140	777	231	0				953	3	283
Adj No. of Lanes	0	2	1	2	2	0				2	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1212	542	853	2225	0				1055	5	481
Arrive On Green	0.00	0.34	0.34	0.08	0.20	0.00				0.30	0.30	0.30
Sat Flow, veh/h	0	3705	1615	3510	3705	0				3510	17	1601
Grp Volume(v), veh/h	0	810	140	777	231	0				953	0	286
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1755	1805	0				1755	0	1618
Q Serve(g_s), s	0.0	23.1	7.6	26.4	6.2	0.0				31.3	0.0	18.0
Cycle Q Clear(g_c), s	0.0	23.1	7.6	26.4	6.2	0.0				31.3	0.0	18.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1212	542	853	2225	0				1055	0	486
V/C Ratio(X)	0.00	0.67	0.26	0.91	0.10	0.00				0.90	0.00	0.59
Avail Cap(c_a), veh/h	0	1212	542	951	2225	0				1141	0	526
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.66	0.66	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	34.1	29.0	53.9	20.8	0.0				40.3	0.0	35.7
Incr Delay (d2), s/veh	0.0	2.9	1.2	8.0	0.1	0.0				9.7	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.0	3.6	13.8	3.2	0.0				16.5	0.0	8.2
LnGrp Delay(d),s/veh	0.0	37.1	30.1	61.9	20.9	0.0				50.0	0.0	37.2
LnGrp LOS		D	C	E	C					D		D
Approach Vol, veh/h		950			1008						1239	
Approach Delay, s/veh		36.0			52.5						47.0	
Approach LOS		D			D						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	33.6	45.3		41.1		78.9		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	32.5	34.0		39.0		71.0		
Max Q Clear Time (g_c+I1), s	28.4	25.1		33.3		8.2		
Green Ext Time (p_c), s	0.8	3.2		2.8		4.9		

Intersection Summary	
HCM 2010 Ctrl Delay	45.5
HCM 2010 LOS	D

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
2: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	509	1042	0	0	837	1643	51	0	294	0	0	0
Future Volume (veh/h)	509	1042	0	0	837	1643	51	0	294	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	606	1240	0	0	996	0	61	0	182			
Adj No. of Lanes	2	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	659	2286	0	0	1503	672	513	0	458			
Arrive On Green	0.38	1.00	0.00	0.00	0.42	0.00	0.28	0.00	0.28			
Sat Flow, veh/h	3510	3705	0	0	3705	1615	1810	0	1615			
Grp Volume(v), veh/h	606	1240	0	0	996	0	61	0	182			
Grp Sat Flow(s),veh/h/ln	1755	1805	0	0	1805	1615	1810	0	1615			
Q Serve(g_s), s	19.8	0.0	0.0	0.0	26.7	0.0	3.0	0.0	10.9			
Cycle Q Clear(g_c), s	19.8	0.0	0.0	0.0	26.7	0.0	3.0	0.0	10.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	659	2286	0	0	1503	672	513	0	458			
V/C Ratio(X)	0.92	0.54	0.00	0.00	0.66	0.00	0.12	0.00	0.40			
Avail Cap(c_a), veh/h	834	2286	0	0	1503	672	513	0	458			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.51	0.51	0.00	0.00	0.09	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	36.6	0.0	0.0	0.0	28.2	0.0	31.9	0.0	34.7			
Incr Delay (d2), s/veh	6.7	0.5	0.0	0.0	0.2	0.0	0.5	0.0	2.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.0	0.2	0.0	0.0	13.3	0.0	1.6	0.0	5.2			
LnGrp Delay(d),s/veh	43.3	0.5	0.0	0.0	28.4	0.0	32.4	0.0	37.3			
LnGrp LOS	D	A			C		C		D			
Approach Vol, veh/h		1846			996			243				
Approach Delay, s/veh		14.5			28.4			36.1				
Approach LOS		B			C			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		81.0			26.0	55.0		39.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		76.0			28.5	44.0		34.0
Max Q Clear Time (g_c+I1), s		2.0			21.8	28.7		12.9
Green Ext Time (p_c), s		15.7			0.8	9.1		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	20.7
HCM 2010 LOS	C

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	1314	2386	7	15	93
Future Volume (veh/h)	22	1314	2386	7	15	93
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	1493	2711	8	17	106
Adj No. of Lanes	1	2	2	1	0	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	43	2816	2604	1165	30	187
Arrive On Green	0.02	0.52	0.72	0.72	0.13	0.13
Sat Flow, veh/h	1810	3705	3705	1615	225	1403
Grp Volume(v), veh/h	25	1493	2711	8	124	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1615	1641	0
Q Serve(g_s), s	1.6	32.8	86.6	0.2	8.5	0.0
Cycle Q Clear(g_c), s	1.6	32.8	86.6	0.2	8.5	0.0
Prop In Lane	1.00			1.00	0.14	0.85
Lane Grp Cap(c), veh/h	43	2816	2604	1165	219	0
V/C Ratio(X)	0.59	0.53	1.04	0.01	0.57	0.00
Avail Cap(c_a), veh/h	75	2816	2604	1165	219	0
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	58.5	14.1	16.7	4.7	48.8	0.0
Incr Delay (d2), s/veh	3.7	0.6	29.4	0.0	10.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	16.5	53.0	0.1	4.5	0.0
LnGrp Delay(d),s/veh	62.2	14.7	46.1	4.7	59.0	0.0
LnGrp LOS	E	B	F	A	E	
Approach Vol, veh/h		1518	2719		124	
Approach Delay, s/veh		15.5	46.0		59.0	
Approach LOS		B	D		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		99.4		20.6	7.0	92.4		
Change Period (Y+Rc), s		5.8		4.6	* 4.2	5.8		
Max Green Setting (Gmax), s		93.6		16.0	* 5	84.4		
Max Q Clear Time (g_c+I1), s		34.8		10.5	3.6	88.6		
Green Ext Time (p_c), s		49.4		0.1	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	35.8
HCM 2010 LOS	D

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
4: Patterson Avenue & Harley Knox Boulevard 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1249	26	39	2198	3	71	4	20	7	2	94
Future Volume (veh/h)	20	1249	26	39	2198	3	71	4	20	7	2	94
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	1469	31	46	2586	3	84	5	19	8	2	104
Adj No. of Lanes	1	3	1	1	3	1	0	1	0	0	1	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	2697	840	142	3056	952	376	27	74	420	99	492
Arrive On Green	0.02	0.52	0.52	0.08	0.59	0.59	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1810	5187	1615	1810	5187	1615	1051	87	243	1195	326	1615
Grp Volume(v), veh/h	24	1469	31	46	2586	3	108	0	0	10	0	104
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1615	1382	0	0	1521	0	1615
Q Serve(g_s), s	1.5	21.8	1.1	2.8	47.0	0.1	6.0	0.0	0.0	0.0	0.0	5.5
Cycle Q Clear(g_c), s	1.5	21.8	1.1	2.8	47.0	0.1	6.6	0.0	0.0	0.4	0.0	5.5
Prop In Lane	1.00		1.00	1.00		1.00	0.78		0.18	0.80		1.00
Lane Grp Cap(c), veh/h	42	2697	840	142	3056	952	476	0	0	519	0	492
V/C Ratio(X)	0.57	0.54	0.04	0.32	0.85	0.00	0.23	0.00	0.00	0.02	0.00	0.21
Avail Cap(c_a), veh/h	79	2697	840	142	3056	952	476	0	0	519	0	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.6	18.5	13.5	50.1	19.4	9.7	30.1	0.0	0.0	28.0	0.0	29.7
Incr Delay (d2), s/veh	4.4	0.8	0.1	0.5	3.1	0.0	1.1	0.0	0.0	0.1	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	10.5	0.5	1.4	23.1	0.0	2.7	0.0	0.0	0.2	0.0	2.6
LnGrp Delay(d),s/veh	60.0	19.3	13.6	50.6	22.5	9.7	31.2	0.0	0.0	28.0	0.0	30.7
LnGrp LOS	E	B	B	D	C	A	C			C		C
Approach Vol, veh/h		1524			2635			108			114	
Approach Delay, s/veh		19.8			22.9			31.2			30.5	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.9	65.6		40.1	6.9	73.7		40.1
Change Period (Y+Rc), s	5.8	* 5.8		5.1	* 4.2	5.8		5.1
Max Green Setting (Gmax), s	5.1	* 60		35.0	* 5	59.9		35.0
Max Q Clear Time (g_c+I1), s	4.8	23.8		7.5	3.5	49.0		8.6
Green Ext Time (p_c), s	0.0	8.4		0.6	0.0	8.7		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	22.2
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)
7: Indian Street & Grove View Road — 3/24/2016

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	36	14	999	39	16	2039
Future Volume (veh/h)	36	14	999	39	16	2039
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	47	18	1297	51	21	2648
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	161	144	2555	100	41	2855
Arrive On Green	0.09	0.09	0.72	0.72	0.02	0.79
Sat Flow, veh/h	1810	1615	3636	139	1810	3705
Grp Volume(v), veh/h	47	18	660	688	21	2648
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1875	1810	1805
Q Serve(g_s), s	2.2	0.9	14.5	14.5	1.0	51.8
Cycle Q Clear(g_c), s	2.2	0.9	14.5	14.5	1.0	51.8
Prop In Lane	1.00	1.00		0.07	1.00	
Lane Grp Cap(c), veh/h	161	144	1302	1353	41	2855
V/C Ratio(X)	0.29	0.12	0.51	0.51	0.51	0.93
Avail Cap(c_a), veh/h	201	179	1302	1353	105	2855
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.09	0.09
Uniform Delay (d), s/veh	38.3	37.7	5.5	5.5	43.5	7.4
Incr Delay (d2), s/veh	0.4	0.1	1.4	1.4	0.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.4	7.7	8.0	0.5	25.3
LnGrp Delay(d),s/veh	38.7	37.9	6.9	6.9	43.8	8.1
LnGrp LOS	D	D	A	A	D	A
Approach Vol, veh/h	65		1348			2669
Approach Delay, s/veh	38.5		6.9			8.4
Approach LOS	D		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.2	71.1				77.4		12.6
Change Period (Y+Rc), s	* 4.2	6.2				6.2		4.6
Max Green Setting (Gmax), s	* 5.2	59.8				69.2		10.0
Max Q Clear Time (g_c+I1), s	3.0	16.5				53.8		4.2
Green Ext Time (p_c), s	0.0	34.9				14.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)
10: Indian Street & Harley Knox Boulevard — 6/24/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	678	488	112	19	863	31	168	205	27	51	238	1194
Future Volume (veh/h)	678	488	112	19	863	31	168	205	27	51	238	1194
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	827	595	128	23	1052	27	205	250	23	62	290	1373
Adj No. of Lanes	2	3	1	1	3	0	2	2	1	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1613	3807	1185	40	1474	38	170	1098	491	80	1023	1200
Arrive On Green	0.46	0.73	0.73	0.02	0.28	0.28	0.05	0.30	0.30	0.04	0.28	0.28
Sat Flow, veh/h	3510	5187	1615	1810	5201	133	3510	3610	1613	1810	3610	1615
Grp Volume(v), veh/h	827	595	128	23	699	380	205	250	23	62	290	1373
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1729	1876	1755	1805	1613	1810	1805	1615
Q Serve(g_s), s	20.0	4.1	4.1	1.5	21.8	21.8	5.8	6.2	1.2	4.1	7.5	34.0
Cycle Q Clear(g_c), s	20.0	4.1	4.1	1.5	21.8	21.8	5.8	6.2	1.2	4.1	7.5	34.0
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1613	3807	1185	40	980	532	170	1098	491	80	1023	1200
V/C Ratio(X)	0.51	0.16	0.11	0.57	0.71	0.71	1.21	0.23	0.05	0.78	0.28	1.14
Avail Cap(c_a), veh/h	1613	3807	1185	86	980	532	170	1098	491	97	1023	1200
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	4.8	10.0	58.1	38.6	38.6	57.1	31.2	29.5	56.8	33.5	15.4
Incr Delay (d2), s/veh	0.1	0.1	0.2	4.6	4.4	8.0	136.1	0.5	0.2	21.9	0.7	75.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	2.0	1.8	0.8	11.0	12.5	6.0	3.2	0.6	2.5	3.8	39.3
LnGrp Delay(d),s/veh	23.0	4.9	10.2	62.7	43.1	46.6	193.2	31.7	29.7	78.6	34.2	90.7
LnGrp LOS	C	A	B	E	D	D	F	C	C	E	C	F
Approach Vol, veh/h		1550			1102			478			1725	
Approach Delay, s/veh		15.0			44.7			100.9			80.8	
Approach LOS		B			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	93.9	11.2	40.2	60.9	39.8	9.5	41.9
Change Period (Y+Rc), s	* 4.2	5.8	5.4	* 6.2	5.8	* 5.8	* 4.2	5.4
Max Green Setting (Gmax), s	* 5.7	54.1	5.8	* 34	25.8	* 34	* 6.4	34.2
Max Q Clear Time (g_c+I1), s	3.5	6.1	7.8	36.0	22.0	23.8	6.1	8.2
Green Ext Time (p_c), s	0.0	4.6	0.0	0.0	1.0	3.2	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	53.6
HCM 2010 LOS	D

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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APPENDIX 6.8:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	717	44	313	335	0	0	0	0	1581	3	369
Future Volume (veh/h)	0	717	44	313	335	0	0	0	0	1581	3	369
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	788	45	344	368	0				1737	3	340
Adj No. of Lanes	0	2	1	2	2	0				2	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	918	411	395	1460	0				1798	7	821
Arrive On Green	0.00	0.25	0.25	0.15	0.54	0.00				0.51	0.51	0.51
Sat Flow, veh/h	0	3705	1615	3510	3705	0				3510	14	1603
Grp Volume(v), veh/h	0	788	45	344	368	0				1737	0	343
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1755	1805	0				1755	0	1617
Q Serve(g_s), s	0.0	25.0	2.6	11.5	6.5	0.0				57.3	0.0	15.8
Cycle Q Clear(g_c), s	0.0	25.0	2.6	11.5	6.5	0.0				57.3	0.0	15.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	918	411	395	1460	0				1798	0	828
V/C Ratio(X)	0.00	0.86	0.11	0.87	0.25	0.00				0.97	0.00	0.41
Avail Cap(c_a), veh/h	0	918	411	395	1460	0				1814	0	836
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.92	0.92	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	42.7	34.3	50.2	18.0	0.0				28.3	0.0	18.1
Incr Delay (d2), s/veh	0.0	10.2	0.5	16.7	0.4	0.0				13.9	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.8	1.2	6.5	3.3	0.0				31.2	0.0	7.1
LnGrp Delay(d),s/veh	0.0	52.9	34.8	66.9	18.4	0.0				42.1	0.0	18.4
LnGrp LOS		D	C	E	B					D		B
Approach Vol, veh/h		833			712						2080	
Approach Delay, s/veh		51.9			41.8						38.2	
Approach LOS		D			D						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	18.0	35.5		66.5		53.5		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	13.5	30.0		62.0		48.0		
Max Q Clear Time (g_c+I1), s	13.5	27.0		59.3		8.5		
Green Ext Time (p_c), s	0.0	1.5		2.2		5.3		

Intersection Summary	
HCM 2010 Ctrl Delay	42.1
HCM 2010 LOS	D

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	438	1860	0	0	554	860	93	4	414	0	0	0
Future Volume (veh/h)	438	1860	0	0	554	860	93	4	414	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	503	2138	0	0	637	0	107	5	422			
Adj No. of Lanes	2	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	567	2286	0	0	1598	715	491	23	458			
Arrive On Green	0.16	0.63	0.00	0.00	0.44	0.00	0.28	0.28	0.28			
Sat Flow, veh/h	3510	3705	0	0	3705	1615	1732	81	1615			
Grp Volume(v), veh/h	503	2138	0	0	637	0	112	0	422			
Grp Sat Flow(s),veh/h/ln	1755	1805	0	0	1805	1615	1813	0	1615			
Q Serve(g_s), s	16.8	63.9	0.0	0.0	14.3	0.0	5.7	0.0	30.4			
Cycle Q Clear(g_c), s	16.8	63.9	0.0	0.0	14.3	0.0	5.7	0.0	30.4			
Prop In Lane	1.00		0.00	0.00		1.00	0.96		1.00			
Lane Grp Cap(c), veh/h	567	2286	0	0	1598	715	514	0	458			
V/C Ratio(X)	0.89	0.94	0.00	0.00	0.40	0.00	0.22	0.00	0.92			
Avail Cap(c_a), veh/h	717	2286	0	0	1598	715	514	0	458			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.25	0.25	0.00	0.00	0.61	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	49.2	19.8	0.0	0.0	22.6	0.0	32.8	0.0	41.7			
Incr Delay (d2), s/veh	2.6	2.6	0.0	0.0	0.5	0.0	1.0	0.0	26.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.4	32.3	0.0	0.0	7.3	0.0	3.0	0.0	17.0			
LnGrp Delay(d),s/veh	51.9	22.4	0.0	0.0	23.1	0.0	33.8	0.0	68.3			
LnGrp LOS	D	C			C		C		E			
Approach Vol, veh/h		2641			637			534				
Approach Delay, s/veh		28.0			23.1			61.0				
Approach LOS		C			C			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		81.0			22.9	58.1		39.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		76.0			24.5	48.0		34.0
Max Q Clear Time (g_c+I1), s		65.9			18.8	16.3		32.4
Green Ext Time (p_c), s		8.3			0.6	19.6		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	31.8
HCM 2010 LOS	C

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	75	2200	1340	29	2	75
Future Volume (veh/h)	75	2200	1340	29	2	75
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	91	2683	1634	35	2	91
Adj No. of Lanes	1	2	2	1	0	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	116	2657	2273	1017	6	251
Arrive On Green	0.06	0.74	0.63	0.63	0.16	0.16
Sat Flow, veh/h	1810	3705	3705	1615	34	1570
Grp Volume(v), veh/h	91	2683	1634	35	94	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1615	1621	0
Q Serve(g_s), s	5.0	73.6	30.6	0.8	5.2	0.0
Cycle Q Clear(g_c), s	5.0	73.6	30.6	0.8	5.2	0.0
Prop In Lane	1.00			1.00	0.02	0.97
Lane Grp Cap(c), veh/h	116	2657	2273	1017	259	0
V/C Ratio(X)	0.78	1.01	0.72	0.03	0.36	0.00
Avail Cap(c_a), veh/h	208	2657	2273	1017	259	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.23	0.23	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.1	13.2	12.5	7.0	37.5	0.0
Incr Delay (d2), s/veh	1.0	10.9	2.0	0.1	3.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	39.8	15.6	0.4	2.6	0.0
LnGrp Delay(d),s/veh	47.1	24.1	14.5	7.1	41.3	0.0
LnGrp LOS	D	F	B	A	D	
Approach Vol, veh/h		2774	1669		94	
Approach Delay, s/veh		24.8	14.4		41.3	
Approach LOS		C	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		79.4		20.6	10.6	68.8		
Change Period (Y+Rc), s		5.8		4.6	* 4.2	5.8		
Max Green Setting (Gmax), s		73.6		16.0	* 12	57.9		
Max Q Clear Time (g_c+I1), s		75.6		7.2	7.0	32.6		
Green Ext Time (p_c), s		0.0		0.1	0.0	23.5		

Intersection Summary	
HCM 2010 Ctrl Delay	21.3
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
4: Patterson Avenue & Harley Knox Boulevard 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	2031	12	13	1215	15	99	2	40	3	4	20
Future Volume (veh/h)	87	2031	12	13	1215	15	99	2	40	3	4	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	2477	13	16	1482	18	121	2	44	4	5	22
Adj No. of Lanes	1	3	1	1	3	1	0	1	0	0	1	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	2932	913	31	2646	824	354	13	113	241	286	471
Arrive On Green	0.07	0.57	0.57	0.02	0.51	0.51	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1810	5187	1615	1810	5187	1615	1035	46	387	676	981	1615
Grp Volume(v), veh/h	106	2477	13	16	1482	18	167	0	0	9	0	22
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1615	1468	0	0	1658	0	1615
Q Serve(g_s), s	6.9	47.7	0.4	1.1	23.5	0.7	10.0	0.0	0.0	0.0	0.0	1.2
Cycle Q Clear(g_c), s	6.9	47.7	0.4	1.1	23.5	0.7	10.8	0.0	0.0	0.4	0.0	1.2
Prop In Lane	1.00		1.00	1.00		1.00	0.72		0.26	0.44		1.00
Lane Grp Cap(c), veh/h	131	2932	913	31	2646	824	480	0	0	527	0	471
V/C Ratio(X)	0.81	0.84	0.01	0.51	0.56	0.02	0.35	0.00	0.00	0.02	0.00	0.05
Avail Cap(c_a), veh/h	157	2932	913	75	2646	824	480	0	0	527	0	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.8	21.7	11.4	58.5	20.2	14.6	33.9	0.0	0.0	30.2	0.0	30.5
Incr Delay (d2), s/veh	19.3	3.2	0.0	4.8	0.9	0.0	2.0	0.0	0.0	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	23.3	0.2	0.6	11.3	0.3	4.7	0.0	0.0	0.2	0.0	0.6
LnGrp Delay(d),s/veh	74.1	24.9	11.5	63.3	21.0	14.6	35.8	0.0	0.0	30.3	0.0	30.7
LnGrp LOS	E	C	B	E	C	B	D			C		C
Approach Vol, veh/h		2596			1516			167			31	
Approach Delay, s/veh		26.8			21.4			35.8			30.6	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	73.6		40.1	12.9	67.0		40.1
Change Period (Y+Rc), s	* 4.2	5.8		5.1	* 4.2	5.8		5.1
Max Green Setting (Gmax), s	* 5	64.9		35.0	* 10	59.5		35.0
Max Q Clear Time (g_c+I1), s	3.1	49.7		3.2	8.9	25.5		12.8
Green Ext Time (p_c), s	0.0	14.0		0.7	0.0	28.6		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	25.3
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	26	6	1851	38	1	736
Future Volume (veh/h)	26	6	1851	38	1	736
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	31	7	2204	45	1	876
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	123	110	2764	56	2	2931
Arrive On Green	0.07	0.07	0.76	0.76	0.00	0.81
Sat Flow, veh/h	1810	1615	3713	74	1810	3705
Grp Volume(v), veh/h	31	7	1096	1153	1	876
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1887	1810	1805
Q Serve(g_s), s	1.5	0.4	32.8	33.4	0.0	5.4
Cycle Q Clear(g_c), s	1.5	0.4	32.8	33.4	0.0	5.4
Prop In Lane	1.00	1.00		0.04	1.00	
Lane Grp Cap(c), veh/h	123	110	1379	1441	2	2931
V/C Ratio(X)	0.25	0.06	0.79	0.80	0.40	0.30
Avail Cap(c_a), veh/h	205	183	1379	1441	103	2931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.92	0.92
Uniform Delay (d), s/veh	39.8	39.2	6.4	6.5	44.9	2.1
Incr Delay (d2), s/veh	0.4	0.1	4.8	4.8	32.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.2	17.7	18.9	0.0	2.8
LnGrp Delay(d),s/veh	40.2	39.3	11.2	11.2	77.1	2.3
LnGrp LOS	D	D	B	B	E	A
Approach Vol, veh/h	38		2249			877
Approach Delay, s/veh	40.0		11.2			2.4
Approach LOS	D		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	4.3	74.9				79.3		10.7
Change Period (Y+Rc), s	4.2	6.2				6.2		4.6
Max Green Setting (Gmax), s	5.1	59.7				69.0		10.2
Max Q Clear Time (g_c+I1), s	2.0	35.4				7.4		3.5
Green Ext Time (p_c), s	0.0	17.3				29.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)

10: Indian Street & Harley Knox Boulevard — 6/24/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1023	877	148	22	609	60	114	222	21	16	80	477
Future Volume (veh/h)	1023	877	148	22	609	60	114	222	21	16	80	477
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1112	953	153	24	662	58	124	241	9	17	87	486
Adj No. of Lanes	2	3	1	1	3	0	2	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2097	4509	1404	42	1368	119	146	1108	496	33	1023	1422
Arrive On Green	0.60	0.87	0.87	0.02	0.28	0.28	0.04	0.31	0.31	0.02	0.28	0.28
Sat Flow, veh/h	3510	5187	1615	1810	4855	422	3510	3610	1615	1810	3610	1615
Grp Volume(v), veh/h	1112	953	153	24	470	250	124	241	9	17	87	486
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1729	1819	1755	1805	1615	1810	1805	1615
Q Serve(g_s), s	22.4	3.5	1.6	1.6	13.6	13.7	4.2	5.9	0.5	1.1	2.1	4.0
Cycle Q Clear(g_c), s	22.4	3.5	1.6	1.6	13.6	13.7	4.2	5.9	0.5	1.1	2.1	4.0
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2097	4509	1404	42	974	512	146	1108	496	33	1023	1422
V/C Ratio(X)	0.53	0.21	0.11	0.58	0.48	0.49	0.85	0.22	0.02	0.52	0.09	0.34
Avail Cap(c_a), veh/h	2097	4509	1404	87	974	512	146	1108	496	75	1023	1422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	1.3	1.1	58.0	35.8	35.9	57.1	30.9	29.0	58.4	31.6	9.9
Incr Delay (d2), s/veh	0.1	0.1	0.2	4.7	1.7	3.3	33.2	0.5	0.1	4.7	0.2	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	1.7	0.8	0.8	6.7	7.3	2.7	3.0	0.2	0.6	1.1	7.7
LnGrp Delay(d),s/veh	14.4	1.4	1.3	62.7	37.5	39.2	90.3	31.3	29.0	63.1	31.7	10.5
LnGrp LOS	B	A	A	E	D	D	F	C	C	E	C	B
Approach Vol, veh/h		2218			744			374			590	
Approach Delay, s/veh		7.9			38.9			50.8			15.2	
Approach LOS		A			D			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	110.2	9.2	40.2	77.6	39.6	6.4	43.0
Change Period (Y+Rc), s	* 4.2	5.8	* 4.2	6.2	5.8	* 5.8	* 4.2	* 6.2
Max Green Setting (Gmax), s	* 5.8	54.8	* 5	34.0	26.8	* 34	* 5	* 35
Max Q Clear Time (g_c+I1), s	3.6	5.5	6.2	6.0	24.4	15.7	3.1	7.9
Green Ext Time (p_c), s	0.0	8.4	0.0	2.1	0.9	2.6	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	18.9
HCM 2010 LOS	B

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	713	132	704	203	0	0	0	0	874	3	313
Future Volume (veh/h)	0	713	132	704	203	0	0	0	0	874	3	313
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	810	140	800	231	0				993	3	283
Adj No. of Lanes	0	2	1	2	2	0				2	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1163	520	873	2196	0				1083	5	494
Arrive On Green	0.00	0.32	0.32	0.08	0.20	0.00				0.31	0.31	0.31
Sat Flow, veh/h	0	3705	1615	3510	3705	0				3510	17	1601
Grp Volume(v), veh/h	0	810	140	800	231	0				993	0	286
Grp Sat Flow(s),veh/h/ln	0	1805	1615	1755	1805	0				1755	0	1618
Q Serve(g_s), s	0.0	23.5	7.7	27.1	6.3	0.0				32.7	0.0	17.8
Cycle Q Clear(g_c), s	0.0	23.5	7.7	27.1	6.3	0.0				32.7	0.0	17.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1163	520	873	2196	0				1083	0	499
V/C Ratio(X)	0.00	0.70	0.27	0.92	0.11	0.00				0.92	0.00	0.57
Avail Cap(c_a), veh/h	0	1163	520	951	2196	0				1141	0	526
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.64	0.64	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	35.6	30.2	53.8	21.3	0.0				40.0	0.0	34.9
Incr Delay (d2), s/veh	0.0	3.5	1.3	8.4	0.1	0.0				11.3	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.3	3.6	14.2	3.2	0.0				17.6	0.0	8.1
LnGrp Delay(d),s/veh	0.0	39.0	31.5	62.2	21.4	0.0				51.3	0.0	36.2
LnGrp LOS		D	C	E	C					D		D
Approach Vol, veh/h		950			1031						1279	
Approach Delay, s/veh		37.9			53.1						47.9	
Approach LOS		D			D						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	34.3	43.6		42.0		78.0		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	32.5	34.0		39.0		71.0		
Max Q Clear Time (g_c+I1), s	29.1	25.5		34.7		8.3		
Green Ext Time (p_c), s	0.7	3.1		2.3		4.9		

Intersection Summary	
HCM 2010 Ctrl Delay	46.6
HCM 2010 LOS	D

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
2: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	509	1077	0	0	857	1695	51	0	297	0	0	0
Future Volume (veh/h)	509	1077	0	0	857	1695	51	0	297	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	606	1282	0	0	1020	0	61	0	186			
Adj No. of Lanes	2	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	656	2286	0	0	1506	674	513	0	458			
Arrive On Green	0.37	1.00	0.00	0.00	0.42	0.00	0.28	0.00	0.28			
Sat Flow, veh/h	3510	3705	0	0	3705	1615	1810	0	1615			
Grp Volume(v), veh/h	606	1282	0	0	1020	0	61	0	186			
Grp Sat Flow(s),veh/h/ln	1755	1805	0	0	1805	1615	1810	0	1615			
Q Serve(g_s), s	19.8	0.0	0.0	0.0	27.5	0.0	3.0	0.0	11.2			
Cycle Q Clear(g_c), s	19.8	0.0	0.0	0.0	27.5	0.0	3.0	0.0	11.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	656	2286	0	0	1506	674	513	0	458			
V/C Ratio(X)	0.92	0.56	0.00	0.00	0.68	0.00	0.12	0.00	0.41			
Avail Cap(c_a), veh/h	775	2286	0	0	1506	674	513	0	458			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.47	0.47	0.00	0.00	0.09	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	36.7	0.0	0.0	0.0	28.4	0.0	31.9	0.0	34.8			
Incr Delay (d2), s/veh	7.6	0.5	0.0	0.0	0.2	0.0	0.5	0.0	2.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.1	0.1	0.0	0.0	13.8	0.0	1.6	0.0	5.4			
LnGrp Delay(d),s/veh	44.3	0.5	0.0	0.0	28.6	0.0	32.4	0.0	37.5			
LnGrp LOS	D	A			C		C		D			
Approach Vol, veh/h		1888			1020			247				
Approach Delay, s/veh		14.5			28.6			36.2				
Approach LOS		B			C			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		81.0			25.9	55.1		39.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		76.0			26.5	46.0		34.0
Max Q Clear Time (g_c+I1), s		2.0			21.8	29.5		13.2
Green Ext Time (p_c), s		16.7			0.6	9.8		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	1352	2457	7	15	93
Future Volume (veh/h)	22	1352	2457	7	15	93
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	1536	2792	8	17	106
Adj No. of Lanes	1	2	2	1	0	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	43	2816	2604	1165	30	187
Arrive On Green	0.02	0.78	0.72	0.72	0.13	0.13
Sat Flow, veh/h	1810	3705	3705	1615	225	1403
Grp Volume(v), veh/h	25	1536	2792	8	124	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1615	1641	0
Q Serve(g_s), s	1.6	19.6	86.6	0.2	8.5	0.0
Cycle Q Clear(g_c), s	1.6	19.6	86.6	0.2	8.5	0.0
Prop In Lane	1.00			1.00	0.14	0.85
Lane Grp Cap(c), veh/h	43	2816	2604	1165	219	0
V/C Ratio(X)	0.59	0.55	1.07	0.01	0.57	0.00
Avail Cap(c_a), veh/h	75	2816	2604	1165	219	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	58.0	5.1	16.7	4.7	48.8	0.0
Incr Delay (d2), s/veh	3.7	0.6	40.6	0.0	10.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	9.8	57.0	0.1	4.5	0.0
LnGrp Delay(d),s/veh	61.7	5.7	57.3	4.7	59.0	0.0
LnGrp LOS	E	A	F	A	E	
Approach Vol, veh/h		1561	2800		124	
Approach Delay, s/veh		6.5	57.2		59.0	
Approach LOS		A	E		E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		99.4		20.6	7.0	92.4		
Change Period (Y+Rc), s		5.8		4.6	* 4.2	5.8		
Max Green Setting (Gmax), s		93.6		16.0	* 5	84.4		
Max Q Clear Time (g_c+I1), s		21.6		10.5	3.6	88.6		
Green Ext Time (p_c), s		60.3		0.1	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	39.6
HCM 2010 LOS	D

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary Indian Street Commerce Center TIA (JN09912)
4: Patterson Avenue & Harley Knox Boulevard 1/6/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1287	26	41	2269	3	71	4	21	7	2	94
Future Volume (veh/h)	20	1287	26	41	2269	3	71	4	21	7	2	94
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	1514	31	48	2669	3	84	5	20	8	2	104
Adj No. of Lanes	1	3	1	1	3	1	0	1	0	0	1	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	2749	856	62	2807	874	373	27	77	420	99	492
Arrive On Green	0.02	0.53	0.53	0.03	0.54	0.54	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1810	5187	1615	1810	5187	1615	1042	88	254	1193	326	1615
Grp Volume(v), veh/h	24	1514	31	48	2669	3	109	0	0	10	0	104
Grp Sat Flow(s),veh/h/ln	1810	1729	1615	1810	1729	1615	1384	0	0	1519	0	1615
Q Serve(g_s), s	1.5	22.3	1.1	3.0	55.9	0.1	6.1	0.0	0.0	0.0	0.0	5.5
Cycle Q Clear(g_c), s	1.5	22.3	1.1	3.0	55.9	0.1	6.7	0.0	0.0	0.4	0.0	5.5
Prop In Lane	1.00		1.00	1.00		1.00	0.77		0.18	0.80		1.00
Lane Grp Cap(c), veh/h	42	2749	856	62	2807	874	477	0	0	519	0	492
V/C Ratio(X)	0.57	0.55	0.04	0.77	0.95	0.00	0.23	0.00	0.00	0.02	0.00	0.21
Avail Cap(c_a), veh/h	79	2749	856	80	2807	874	477	0	0	519	0	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.6	17.9	12.9	55.1	24.9	12.1	30.1	0.0	0.0	28.0	0.0	29.7
Incr Delay (d2), s/veh	4.4	0.8	0.1	21.4	8.9	0.0	1.1	0.0	0.0	0.1	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	10.7	0.5	1.9	28.7	0.0	2.8	0.0	0.0	0.2	0.0	2.6
LnGrp Delay(d),s/veh	60.0	18.7	13.0	76.5	33.8	12.1	31.2	0.0	0.0	28.0	0.0	30.7
LnGrp LOS	E	B	B	E	C	B	C			C		C
Approach Vol, veh/h		1569			2720			109			114	
Approach Delay, s/veh		19.2			34.6			31.2			30.5	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.1	66.8		40.1	6.9	68.0		40.1
Change Period (Y+Rc), s	* 4.2	5.8		5.1	* 4.2	5.8		5.1
Max Green Setting (Gmax), s	* 5.1	59.8		35.0	* 5	59.9		35.0
Max Q Clear Time (g_c+I1), s	5.0	24.3		7.5	3.5	57.9		8.7
Green Ext Time (p_c), s	0.0	30.8		0.6	0.0	1.9		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	29.0
HCM 2010 LOS	C

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	41	14	1011	51	16	2045
Future Volume (veh/h)	41	14	1011	51	16	2045
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	18	1313	66	21	2656
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	167	149	2513	126	41	2844
Arrive On Green	0.09	0.09	0.72	0.72	0.02	0.79
Sat Flow, veh/h	1810	1615	3593	176	1810	3705
Grp Volume(v), veh/h	53	18	677	702	21	2656
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1869	1810	1805
Q Serve(g_s), s	2.5	0.9	15.2	15.3	1.0	53.2
Cycle Q Clear(g_c), s	2.5	0.9	15.2	15.3	1.0	53.2
Prop In Lane	1.00	1.00		0.09	1.00	
Lane Grp Cap(c), veh/h	167	149	1297	1343	41	2844
V/C Ratio(X)	0.32	0.12	0.52	0.52	0.51	0.93
Avail Cap(c_a), veh/h	201	179	1297	1343	105	2844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.09	0.09
Uniform Delay (d), s/veh	38.2	37.5	5.7	5.7	43.5	7.7
Incr Delay (d2), s/veh	0.4	0.1	1.5	1.5	0.3	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.4	8.1	8.4	0.5	25.8
LnGrp Delay(d),s/veh	38.6	37.6	7.2	7.2	43.8	8.5
LnGrp LOS	D	D	A	A	D	A
Approach Vol, veh/h	71		1379			2677
Approach Delay, s/veh	38.4		7.2			8.7
Approach LOS	D		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.2	70.9				77.1		12.9
Change Period (Y+Rc), s	4.2	6.2				6.2		4.6
Max Green Setting (Gmax), s	5.3	59.8				69.2		10.0
Max Q Clear Time (g_c+I1), s	3.0	17.3				55.2		4.5
Green Ext Time (p_c), s	0.0	34.7				13.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	8.7
HCM 2010 LOS	A

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HCM 2010 Signalized Intersection Summary — Indian Street Commerce Center TIA (JN09912)

10: Indian Street & Harley Knox Boulevard — 6/24/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	717	488	112	19	863	37	168	205	27	63	238	1268
Future Volume (veh/h)	717	488	112	19	863	37	168	205	27	63	238	1268
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	874	595	128	23	1052	34	205	250	23	77	290	1463
Adj No. of Lanes	2	3	1	1	3	0	2	2	1	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1752	4012	1249	40	1463	47	170	1065	476	97	1023	1264
Arrive On Green	0.50	0.77	0.77	0.02	0.28	0.28	0.05	0.30	0.30	0.05	0.28	0.28
Sat Flow, veh/h	3510	5187	1615	1810	5162	167	3510	3610	1613	1810	3610	1615
Grp Volume(v), veh/h	874	595	128	23	705	381	205	250	23	77	290	1463
Grp Sat Flow(s),veh/h/ln	1755	1729	1615	1810	1729	1871	1755	1805	1613	1810	1805	1615
Q Serve(g_s), s	19.9	3.5	4.1	1.5	22.0	22.0	5.8	6.3	1.2	5.0	7.5	34.0
Cycle Q Clear(g_c), s	19.9	3.5	4.1	1.5	22.0	22.0	5.8	6.3	1.2	5.0	7.5	34.0
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1752	4012	1249	40	980	530	170	1065	476	97	1023	1264
V/C Ratio(X)	0.50	0.15	0.10	0.57	0.72	0.72	1.21	0.23	0.05	0.80	0.28	1.16
Avail Cap(c_a), veh/h	1752	4012	1249	86	980	530	170	1065	476	97	1023	1264
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	3.5	10.0	58.1	38.7	38.7	57.1	32.0	30.3	56.2	33.5	13.0
Incr Delay (d2), s/veh	0.1	0.1	0.2	4.6	4.5	8.2	136.1	0.5	0.2	33.7	0.7	80.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	1.7	1.8	0.8	11.1	12.5	6.0	3.2	0.6	3.4	3.8	42.0
LnGrp Delay(d),s/veh	20.1	3.6	10.2	62.7	43.2	46.9	193.2	32.6	30.4	89.9	34.2	93.2
LnGrp LOS	C	A	B	E	D	D	F	C	C	F	C	F
Approach Vol, veh/h		1597			1109			478			1830	
Approach Delay, s/veh		13.2			44.9			101.3			83.7	
Approach LOS		B			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	98.6	11.2	40.2	65.7	39.8	10.6	40.8
Change Period (Y+Rc), s	* 4.2	5.8	5.4	* 6.2	5.8	* 5.8	* 4.2	5.4
Max Green Setting (Gmax), s	* 5.7	54.1	5.8	* 34	25.8	* 34	* 6.4	34.2
Max Q Clear Time (g_c+I1), s	3.5	6.1	7.8	36.0	21.9	24.0	7.0	8.3
Green Ext Time (p_c), s	0.0	4.8	0.0	0.0	1.1	3.2	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	54.3
HCM 2010 LOS	D

Notes

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 6.9:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Queues — Indian Street Commerce Center TIA (JN09912)

1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 1/6/2016

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	788	48	336	368	1660	408
v/c Ratio	0.85	0.11	0.87	0.25	0.92	0.41
Control Delay	53.1	7.2	58.2	26.0	36.9	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	7.2	58.2	26.0	36.9	4.8
Queue Length 50th (ft)	309	0	143	116	587	29
Queue Length 95th (ft)	#412	24	#213	158	#721	87
Internal Link Dist (ft)	844			267		1109
Turn Bay Length (ft)		100	80			
Base Capacity (vph)	922	456	393	1456	1809	995
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.11	0.85	0.25	0.92	0.41

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	503	2057	629	968	112	467
v/c Ratio	0.82	0.90	0.41	0.60	0.22	0.95
Control Delay	29.0	6.2	25.2	1.7	34.3	67.6
Queue Delay	0.8	0.9	0.0	0.0	0.0	0.0
Total Delay	29.8	7.1	25.2	1.7	34.3	67.6
Queue Length 50th (ft)	188	156	175	0	66	323
Queue Length 95th (ft)	m195	142	226	0	111	#503
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	714	2286	1548	1615	513	493
Starvation Cap Reductn	54	73	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.93	0.41	0.60	0.22	0.95

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Queues — Indian Street Commerce Center TIA (JN09912)

1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 6/28/2016



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	810	150	777	231	953	359
v/c Ratio	0.71	0.27	0.89	0.11	0.87	0.48
Control Delay	41.1	18.2	22.3	2.6	48.4	5.5
Queue Delay	0.3	0.0	1.5	0.0	0.2	0.0
Total Delay	41.3	18.2	23.8	2.6	48.6	5.5
Queue Length 50th (ft)	300	44	277	24	351	2
Queue Length 95th (ft)	370	97	196	17	420	62
Internal Link Dist (ft)	844			267		1109
Turn Bay Length (ft)		100	80			
Base Capacity (vph)	1146	563	948	2178	1138	765
Starvation Cap Reductn	0	0	60	0	0	0
Spillback Cap Reductn	51	0	0	0	12	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.27	0.88	0.11	0.85	0.47

Intersection Summary

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Queues — Indian Street Commerce Center TIA (JN09912)

2: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 1/6/2016

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	606	1240	996	1956	61	350
v/c Ratio	0.85	0.54	0.69	1.23	0.12	0.68
Control Delay	39.6	5.9	19.7	123.2	32.8	36.6
Queue Delay	4.7	2.3	1.4	0.0	0.0	0.0
Total Delay	44.3	8.2	21.1	123.2	32.8	36.6
Queue Length 50th (ft)	232	118	280	~987	35	187
Queue Length 95th (ft)	241	122	m302	m#925	65	265
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	831	2286	1442	1595	511	515
Starvation Cap Reductn	159	869	0	0	0	0
Spillback Cap Reductn	0	0	252	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.88	0.84	1.23	0.12	0.68

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

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APPENDIX 6.10:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Queues — Indian Street Commerce Center TIA (JN09912)

1: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 1/6/2016

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	788	48	344	368	1737	408
v/c Ratio	0.87	0.11	0.89	0.25	0.96	0.41
Control Delay	54.5	7.2	60.4	26.1	41.9	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay	54.5	7.2	60.4	26.1	42.1	4.8
Queue Length 50th (ft)	309	0	146	116	642	29
Queue Length 95th (ft)	#412	24	#221	158	#828	87
Internal Link Dist (ft)	844			267		1109
Turn Bay Length (ft)		100	80			
Base Capacity (vph)	907	450	393	1444	1809	995
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	4	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.11	0.88	0.25	0.96	0.41

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	503	2138	637	989	112	476
v/c Ratio	0.82	0.94	0.41	0.61	0.22	0.97
Control Delay	28.9	7.6	25.3	1.7	34.3	71.4
Queue Delay	0.8	2.1	0.0	0.0	0.0	0.0
Total Delay	29.7	9.7	25.3	1.7	34.3	71.4
Queue Length 50th (ft)	186	158	177	0	66	333
Queue Length 95th (ft)	m190	144	228	0	111	#520
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	714	2286	1548	1615	513	493
Starvation Cap Reductn	54	72	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.97	0.41	0.61	0.22	0.97

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

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Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	810	150	800	231	993	359
v/c Ratio	0.73	0.27	0.90	0.11	0.89	0.47
Control Delay	42.3	18.4	22.5	2.7	50.2	5.4
Queue Delay	0.3	0.0	2.1	0.0	0.4	0.0
Total Delay	42.6	18.4	24.7	2.7	50.6	5.4
Queue Length 50th (ft)	303	44	284	24	372	2
Queue Length 95th (ft)	370	97	199	16	444	62
Internal Link Dist (ft)	844			267		1109
Turn Bay Length (ft)		100	80			
Base Capacity (vph)	1114	549	948	2162	1138	765
Starvation Cap Reductn	0	0	62	0	0	0
Spillback Cap Reductn	50	0	0	0	15	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.27	0.90	0.11	0.88	0.47

Intersection Summary

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Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	606	1282	1020	2018	61	354
v/c Ratio	0.85	0.56	0.71	1.27	0.12	0.70
Control Delay	38.9	5.8	19.6	140.3	32.8	38.4
Queue Delay	4.7	3.1	1.8	0.0	0.0	0.0
Total Delay	43.6	8.8	21.4	140.3	32.8	38.4
Queue Length 50th (ft)	232	118	290	~1090	35	196
Queue Length 95th (ft)	240	122	m300	m#937	65	276
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	831	2286	1442	1595	511	509
Starvation Cap Reductn	159	869	0	0	0	0
Spillback Cap Reductn	0	0	255	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.90	0.86	1.27	0.12	0.70

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

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April 27, 2016

Mr. John Ramirez
Rutan & Tucker, LLP
611 Anton Bl., 14th Floor
Costa Mesa, CA 92626

SUBJECT: INDIAN STREET COMMERCE CENTER SUPPLEMENTAL BASIC FREEWAY SEGMENT ANALYSIS

Dear Mr. John Ramirez:

This letter serves as a supplement to the *Indian Street Commerce Center Traffic Impact Analysis* (dated March 2016) (referred to as "Traffic Study") that assesses freeway mainline segments for the following scenarios found in the Traffic Study:

- Existing (2015) Conditions
- Existing Plus Project Conditions (E+P)
- Opening Year Cumulative (2020) Without Project Conditions
- Opening Year Cumulative (2020) With Project Conditions

Study area mainline segments were selected based on the Project's contribution of 25 or more on-way peak hour trips on a segment.

SUMMARY OF FINDINGS

The addition of Project traffic will result in a less than significant traffic impact on the analysis segments for E+P traffic conditions (see Table 3 attached to this letter). Opening Year Cumulative (2020) traffic growth along the SR-91 and I-215 Freeway is anticipated to exceed the capacity of existing lanes, and would thus result in a deficient level of service (LOS) for select freeway mainline segments under Opening Year Cumulative (2020) traffic conditions (see Table 4 attached to this report); however, the addition of Project Traffic is not anticipated to result in any new deficiencies. The Project is anticipated to contribute no more than 25 peak hour one-way trips to the deficient freeway mainline segments. However, as there are no feasible mitigation measures that would be in place to reduce the deficient freeway mainline segments under Opening Year Cumulative traffic conditions, the Project's contribution to these deficient segments are cumulatively significant and unavoidable.

INTRODUCTION

The *Caltrans Guide for the Preparation of Traffic Impact Studies* (December 2002), specifies when an assessment of a State highway facility (SHF) is typically required. Caltrans has also clarified their traffic

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study guidelines in a letter to the City of Moreno Valley (dated February 10, 2014) which further defines the scope of study for SHFs in CEQA documents by indicating the need for analysis of freeway segments where a project is anticipated to contribute 50 or more peak hour trips and recognizing that a project's contribution to freeway segments dissipates with distance from the point of entry onto the State Highway System (SHS). The letter written by Caltrans to the City of Moreno Valley is applicable to all development within the Moreno Valley Industrial Area Plan (MVIAP), which the proposed Project is located within. The Caltrans letter is included in Attachment A.

In an effort to conduct a conservative analysis, the Project has evaluated the freeway segments in which the Project is anticipated to contribute 25 or more peak hour trips. Although the Project is anticipated to contribute fewer than 25 peak hour trips to some freeway segments, the same study area evaluated for other developments has been assessed for this Project for comparative purposes. The freeway segments evaluated for the purposes of this supplemental analysis are shown on Table 1.

REGIONAL GOODS MOVEMENT

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code §6500, also referred to as the Joint Powers Authority law. On April 7, 2016, SCAG adopted the 2016-2040 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) with goals to:

1) Maximize mobility and accessibility for all people and goods in the region;
2) Ensure travel safety and reliability for all people and goods in the region;
3) Preserve and ensure a sustainable transportation system;
4) Maximize productivity of the transportation system;
5) Protect the environment, improve air quality, and promote energy efficiency;
6) Encourage land use and growth patterns that complement the transportation investments and improve the cost-effectiveness of expenditures; and
7) Maximize the security of the transportation system The RTP/SCS includes a chapter titled "Goods Movement."

It states that the SCAG region hosts one of the largest clusters of logistics activity in North America. Logistics activities, and the jobs that go with them, depend on complex transportation network. The Goods Movement section of the RTP/SCS sets forth regional strategies to achieve an efficient movement of goods throughout Southern California. It recognizes that the SCAG region will experience dramatic increases in truck traffic on east-west corridors that will cause increased congestion and longer delays to both trucks and general traffic on existing routes.

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Goods movements within the SCAG region ranges from moving goods directly from manufacturing centers to local consumers, to those traveling from the San Pedro Bay Ports, to distance destinations across the United States. Goods movements and freight transportation are essential to the SCAG regional economy and quality of life. The regional goods movement system has six primary components: seaports, land ports, air cargo facilities, interstate/highways/local roads, railroads and warehousing/distribution centers. Each component is discussed below:

- Seaports – There are three major ports within the SCAG region: Los Angeles, Long Beach and Hueneme. The Ports of Los Angeles and Long Beach combined are the largest container port complex within the United States. Port Hueneme specializes in the import/export of automobiles, fresh fruit, produce, and serves as the primary support facility for the offshore oil industry.
- Land Ports – There are three international border crossings in Imperial County (Calexico West-Mexicali I, Calexico East-Mexicali II and Andrade-Los Algodones). These border crossings are busy commercial land ports primarily used for the transport of agricultural products.
- Air Cargo Facilities – Los Angeles International Airport (LAX) and Ontario International Airport (ONT) handle a combined 99 percent of the SCAG region's air cargo.
- Class I Railroads – The Burlington Northern Santa Fe Railway (NBSF) and the Union Pacific (UP) are two Class I railroads that are responsible for carrying international and domestic cargo to and from various areas of the country. Both railroads connect directly to the San Pedro Bay Ports.
- Warehousing and Distribution Centers – As of 2014, the SCAG region consisted of approximately 1.2 billion square feet of facility space for warehousing, distribution, cold storage, and truck terminals. Roughly 10 percent of the occupied warehouse space served port-related uses while the remaining 90 percent supported a mix of domestic and international cargo. Distribution facilities for domestic cargo tend to be located in areas farther away from the Ports – such as the Inland Empire.
- Interstate, Highways, and Local Roads – The roadway system carries a mix of local, domestic trade and international cargoes. The roadway system also provides connections between the ports, manufacturing facilities, intermodal terminals, warehouses and distribution centers.

Primary Highway Freight System – The Los Angeles and San Bernardino Counties account for about 60 percent of the total coverage for SCAG's designated Primary Highway Freight System's (PHFS) 41,000-mile highway network.

REGIONAL FREEWAY SYSTEM

Sections of the I-710, I-605, SR-60 and SR-91 carry the highest volumes of truck traffic within the SCAG region, with each averaging approximately 25,000 trucks per day. Other major freeways within the

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

area include the I-5, I-10, I-15 and I-210 where some carry as much as 20,000 trucks per day. The regional freeway system is a key component to the regional goods movement within the SCAG region. Trucks use the freeway system to carry freight between businesses and consumers throughout the SCAG region. The I-710 is anticipated to experience the highest growth in truck traffic related to the growth in port-related traffic. Considerable growth in truck traffic is also anticipated on the I-10 and I-210 Freeway with the highest growth of the east-west corridors is expected for the SR-60 Freeway.

Based on information from the 2016-2040 Regional Transportation Plan (RTP), 94.5 percent of all truck trips are anticipated to remain internal to Riverside County. The remaining 5.5 percent are external trips generated within Riverside County and leaving the SCAG region. The internal truck trips have origins and destinations within the SCAG region and are generated by local industries, construction sites, domestic warehouses, domestic truck terminals and residences. The external truck trips are interregional that reflect trade between the SCAG region and the remainder of the United States. There are also port truck trips, secondary port truck trips and intermodal truck trips; however, these trips account for less than six percent of the overall truck trips.

Exhibit 1 illustrates the SCAG region truck routes and shows the distribution of truck traffic external to the SCAG region, per the 2016-2040 RTP. Based on the Project trip distribution patterns, the Project PM peak hour trips are shown on Exhibit 2. In excess of the 50 peak hour trip threshold, the SR-91, SR-60, and I-215 Freeways segments listed previously on Table 1 would receive 25 or more Project-related peak hour trips and were thus selected for analysis.

FREEWAY MAINLINE SEGMENT ANALYSIS METHODOLOGY & ASSUMPTIONS

The freeway segments of the SR-91, SR-60, and I-215 Freeways shown on Table 1 have been selected for analysis based on Caltrans traffic study guidelines. The freeway segments evaluated in this supplemental analysis are based on actual vehicle-based peak hour directional volumes. The freeway segment analysis is based on the methodology described in the Highway Capacity Manual (HCM 2010), and performed using HCS2010 software. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. Table 2 illustrates the freeway segment LOS thresholds for each density range utilized for this analysis.

The number of lanes for existing baseline conditions has been obtained from field observations conducted by Urban Crossroads or through aerial imagery. The existing freeway geometrics have been utilized for the following traffic conditions: Existing (2015) and E+P. Near-term planned improvements along the SR-91 Freeway and I-215 Freeway have been assumed to be in place for the Opening Year Cumulative (2020) analysis only. The improvements that have been evaluated as part of this analysis are discussed subsequently.

The I-215 Freeway mainline volume data was obtained from the Caltrans Performance Measurement System (PeMS) website for each of the segments of the SR-91 Freeway, SR-60 Freeway, and I-215

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Freeway identified in Table 1. The data was obtained for May 2015 for which reliable data could be obtained, similar to the count date of the intersections counts conducted for the Traffic Study. In an effort to conduct a conservative analysis, the maximum value observed within the three (3) day period was utilized for the weekday morning (AM) and evening (PM) peak hours. In addition, truck traffic, represented as a percentage of total traffic, has been utilized for the purposes of this analysis in an effort to not overstate traffic volumes and potential impacts. As such, actual vehicles (as opposed to PCE volumes) have been utilized for the purposes of the basic freeway segment analysis.

PLANNED ENHANCEMENTS TO THE REGIONAL FREEWAY SYSTEM

OPENING YEAR CUMULATIVE (2020) CONDITIONS

In an effort to improve existing congestion along the SR-91 between Anaheim and Corona, RCTC in partnership with Caltrans, the City of Corona and the Orange County Transportation Authority (OCTA), is currently constructing the SR-91 Project. The SR-91 Project includes the addition of two tolled Express Lanes and one mixed flow lane in each direction of travel between the SR-71 Freeway and the I-15 Freeway. The SR-91 Project also includes the addition of a southbound mixed flow lane along the I-15 Freeway between SR-91 Freeway to Ontario Avenue and an eastbound mixed flow lane along the SR-91 Freeway between the I-15 Freeway and Pierce Street. Funding for the project is provided by a combination of federal, state and local sources, as well as revenue bonds. The Express Lanes will be funded by tolls from future drivers who choose to utilize these lanes. Toll revenue will then be used to repay the federal loan for this project. Construction is currently underway and is expected to be completed by 2017.

The SCAG RTP includes a list of projects included in the Federal Transportation Improvement Program (FTIP). The following is the only applicable FTIP project within the study area, which has also been assumed for Opening Year Cumulative (2020) Without and With Project traffic conditions only:

- Interchange improvements at I-215/Cactus Avenue includes the extension of the northbound auxiliary lane between Alessandro Boulevard south to Cactus Avenue (to be completed by 2018).

Each of the aforementioned improvements have been assumed to be in place for Opening Year Cumulative (2020) traffic conditions.

EXISTING (2015) CONDITIONS ANALYSIS

Existing (2015) mainline directional volumes for the AM and PM peak hours are provided on Table 3. As shown on Table 3, the I-215 Freeway segments analyzed were found to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours. The Existing (2015) peak hour directional freeway mainline LOS is shown on Table 3 and are graphically shown on Exhibit 3. Existing (2015) basic freeway segment analysis worksheets are provided in Attachment B.

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E+P CONDITIONS ANALYSIS

E+P conditions mainline directional volumes for the AM and PM peak hours are also shown on Table 3. Project traffic was added to the Existing (2015) volumes based on a combination of the Project's trip distribution from the Traffic Study and the distribution of trucks within the SCAG region (see Exhibit 1).

As shown on Table 3, I-215 Freeway segments analyzed were found to operate at an acceptable LOS (i.e., LOS D or better) with the addition of Project traffic during the peak hours under E+P conditions. The E+P peak hour directional freeway mainline LOS is shown on Table 3 and are graphically shown on Exhibit 4. E+P conditions basic freeway segment analysis worksheets are provided in Attachment C.

OPENING YEAR CUMULATIVE (2020) CONDITIONS

WITHOUT PROJECT

Opening Year Cumulative (2020) Without Project mainline directional volumes for the AM and PM peak hours are provided on Table 4. Ambient growth and cumulative development traffic have been added to Existing (2015) traffic conditions. As shown on Table 4, I-215 Freeway segments analyzed were found to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours under Opening Year Cumulative (2020) Without Project traffic conditions, with the exception of the following segments:

ID	Freeway	Direction	Segment	Level of Service
24	I-215	Southbound	Eucalyptus Av. to Alessandro Bl.	LOS F PM peak hour only
29	I-215	Southbound	Ramona Exwy. to Nuevo Rd.	LOS F PM peak hour only
32	SR-91	Westbound	Riverwalk Pkwy. To Magnolia Av.	LOS E PM peak hour only
48	I-215	Northbound	University Av. to Martin Luther King Bl.	LOS E AM peak hour only
51	I-215	Northbound	Box Springs Rd. to SR-60/I-215 Freeway	LOS E PM peak hour only
53	I-215	Northbound	Eucalyptus Av. to Alessandro Bl.	LOS E AM peak hour; LOS F PM peak hour
58	I-215	Northbound	Ramona Exwy. to Nuevo Rd.	LOS E AM and PM peak hours

The Opening Year Cumulative (2020) Without Project peak hour directional freeway mainline LOS is shown on Table 4 and is graphically shown on Exhibit 5. Opening Year Cumulative (2020) Without Project basic freeway segment analysis worksheets are provided in Attachment D.

WITH PROJECT

Opening Year Cumulative (2020) With Project mainline directional volumes for the AM and PM peak hours are also provided on Table 4. Ambient growth, Project traffic, and cumulative development traffic has been added to Existing (2015) traffic conditions. As shown on Table 4, there are no additional freeway segments anticipated to operate at unacceptable LOS with the addition of Project

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traffic, in addition to those previously identified for Opening Year Cumulative (2020) Without Project traffic conditions. The Project is anticipated to contribute no more than 25 peak hour one-way trips to the deficient freeway mainline segments. However, as there are no feasible mitigation measures that would be in place to reduce the deficient freeway mainline segments under Opening Year Cumulative traffic conditions, the Project's contribution to these deficient segments are cumulatively significant and unavoidable.

The Opening Year Cumulative (2020) With Project peak hour directional freeway mainline LOS is shown on Table 4 and is graphically shown on Exhibit 6. Opening Year Cumulative (2020) With Project basic freeway segment analysis worksheets are provided in Attachment E.

If you have any questions, please contact me directly at (949) 336-5978.

Respectfully submitted,

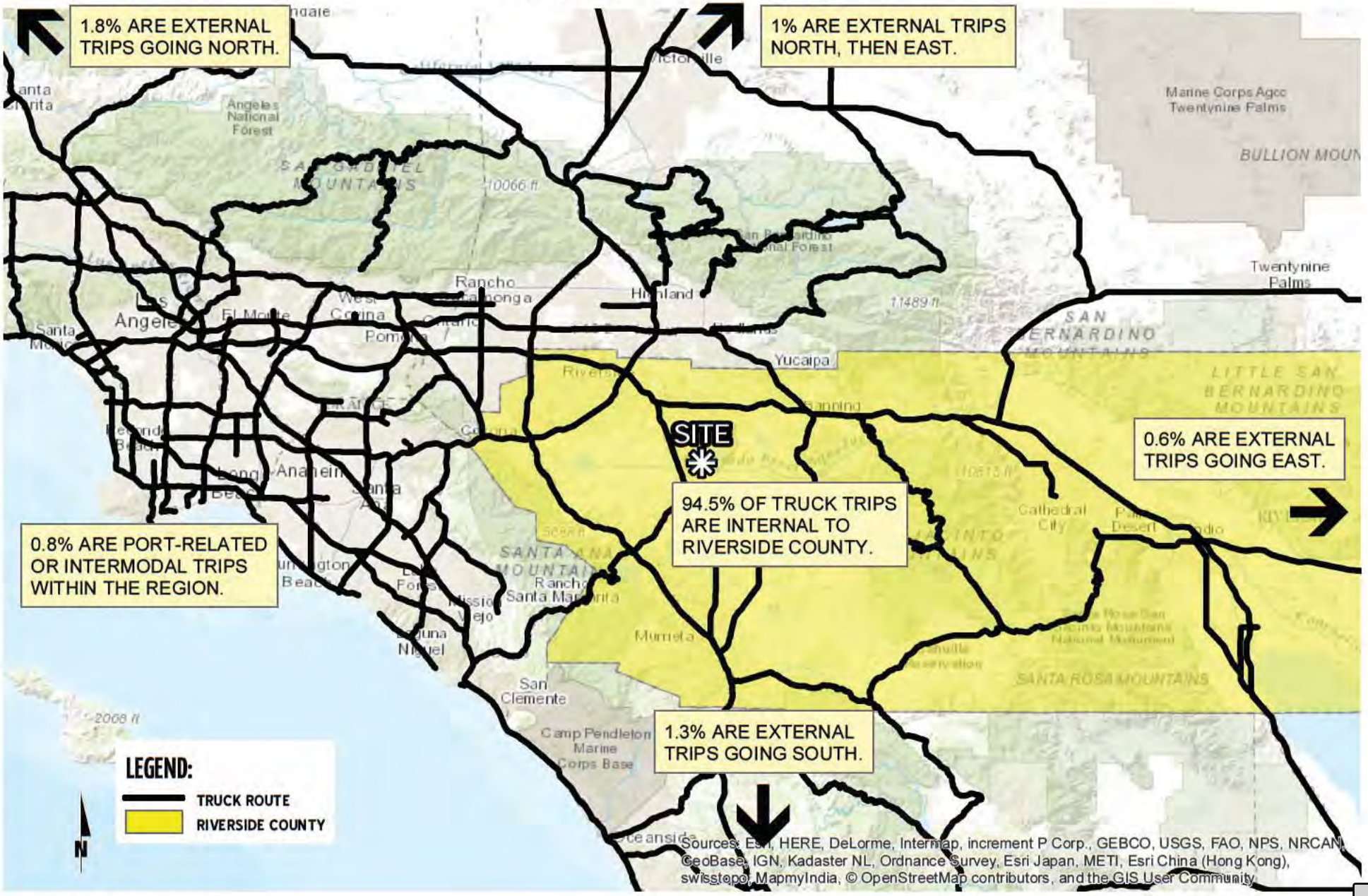
URBAN CROSSROADS, INC.

Aric Evatt, PTP
President

Charlene So, PE
Senior Transportation Engineer

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

EXHIBIT 1: SCAG REGION TRUCK ROUTES



09912 - scagtruck.mxd

URBAN CROSSROADS

EXHIBIT 2: LOCATION MAP



LEGEND:

▬ = ANALYSIS SEGMENTS

10 = PROJECT PM PEAK HOUR TRIPS

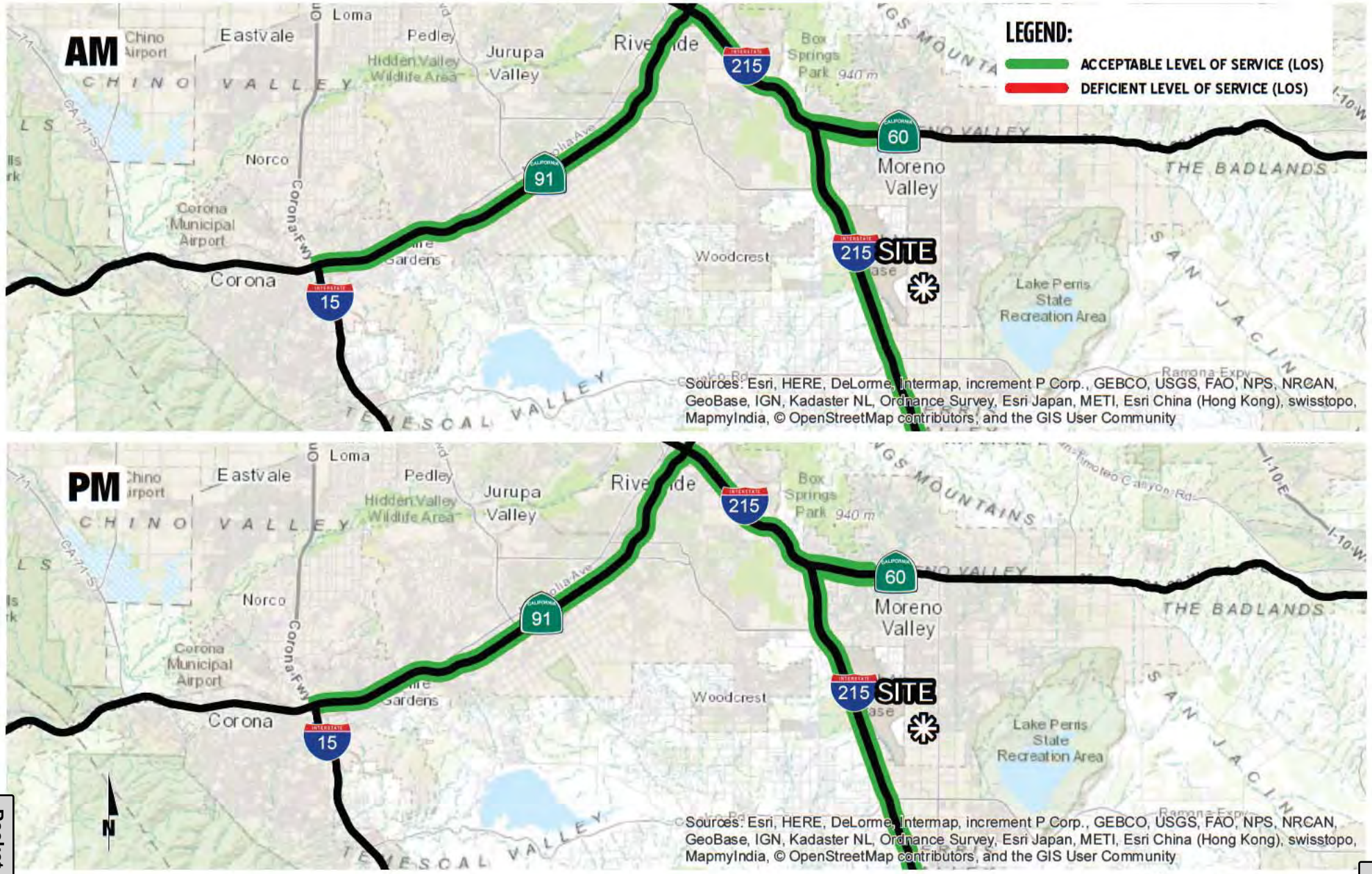
N

09912 - locmap-fwy.dwg

URBAN CROSSROADS

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

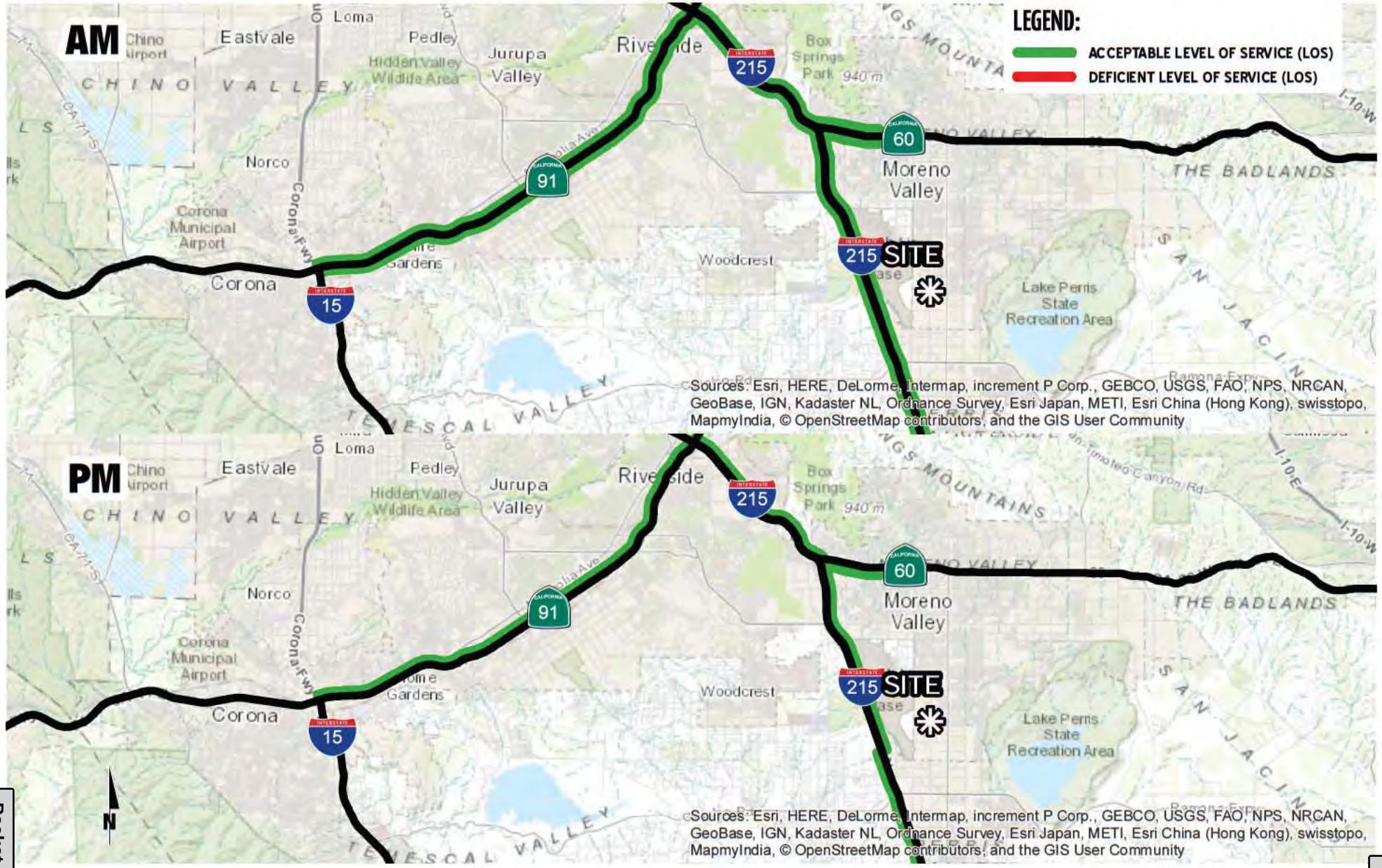
EXHIBIT 3: EXISTING (2015) PEAK HOUR FREEWAY MAINLINE LOS



09912- exist-los.mxd

URBAN CROSSROADS

EXHIBIT 4: E+P PEAK HOUR FREEWAY MAINLINE LOS

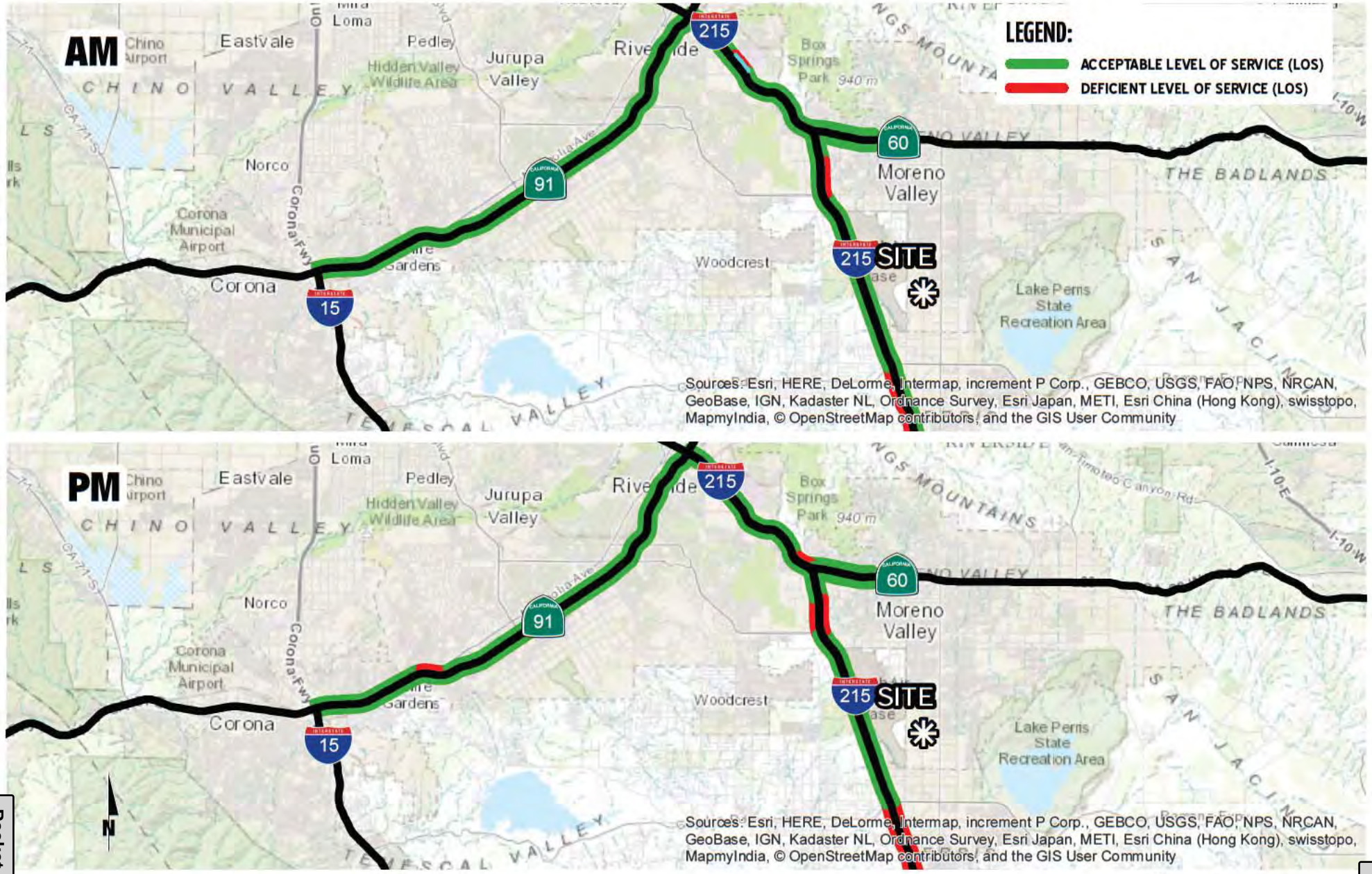


09912 - ep-los.mxd

URBAN CROSSROADS

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

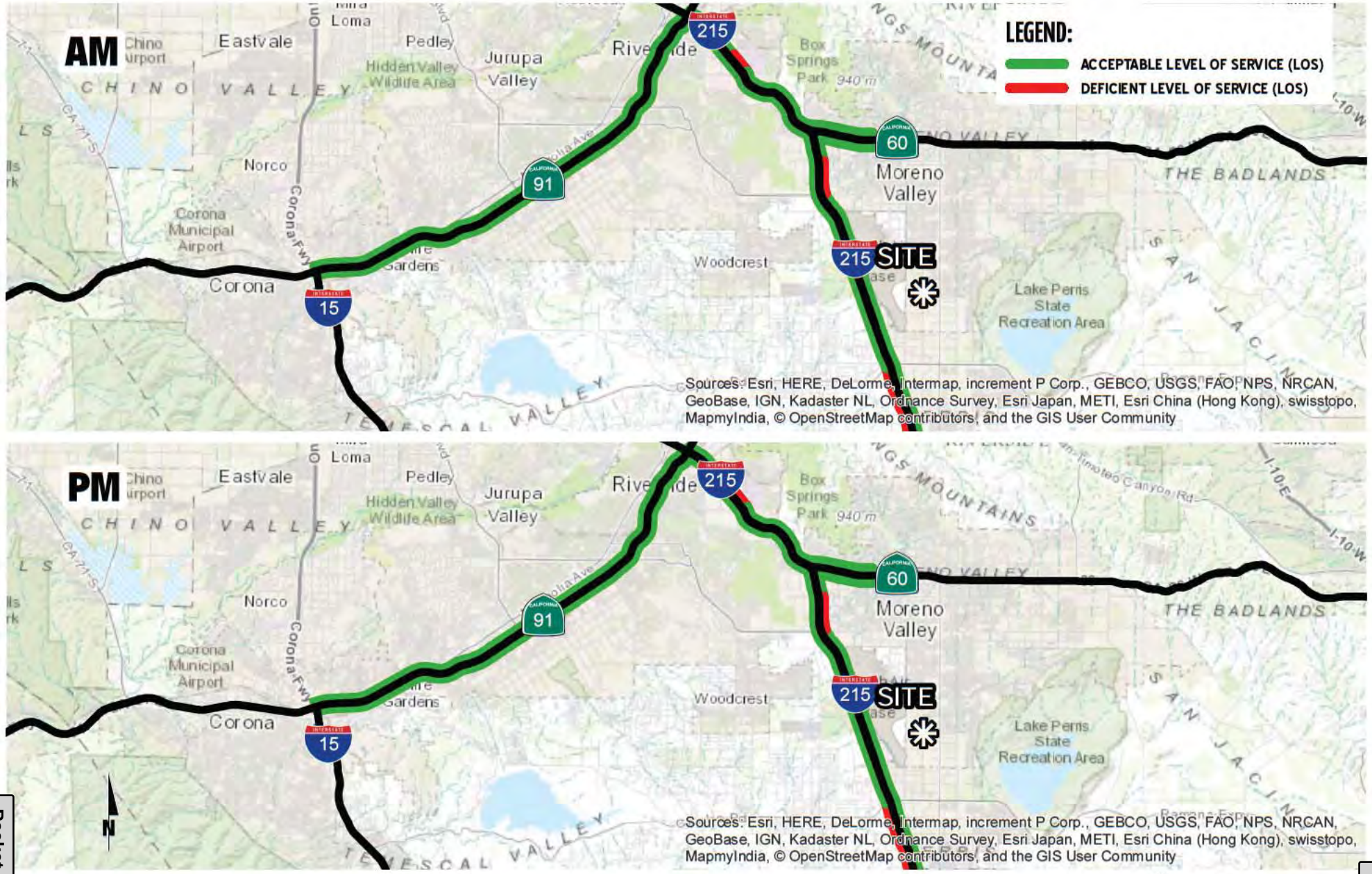
EXHIBIT 5: OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT PEAK HOUR FREEWAY MAINLINE LOS



09912 - 2020np-los.mxd

URBAN CROSSROADS

EXHIBIT 6: OPENING YEAR CUMULATIVE (2020) WITH PROJECT PEAK HOUR FREEWAY MAINLINE LOS



09912 - 2020wp-los.mxd

URBAN CROSSROADS

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Table 1 (Page 1 of 2): Basic Freeway Segment Analysis Locations

ID	Freeway	Direction	Segment
1	SR-91	Eastbound	I-15 Freeway to McKinley St.
2	SR-91	Eastbound	McKinley St. to Riverwalk Pkwy.
3	SR-91	Eastbound	Riverwalk Pkwy. To Magnolia Av.
4	SR-91	Eastbound	Magnolia Av. to La Sierra Av.
5	SR-91	Eastbound	La Sierra Av. to Tyler Av.
6	SR-91	Eastbound	Tyler Av. to Van Buren Bl.
7	SR-91	Eastbound	Van Buren Bl. to Adams St.
8	SR-91	Eastbound	Adams St. to Madison St.
9	SR-91	Eastbound	Madison St. to Arlington Av.
10	SR-91	Eastbound	Arlington Av. to Central Av.
11	SR-91	Eastbound	Central Av. to 14th St.
12	SR-91	Eastbound	14th St. to University Av.
13	SR-91	Eastbound	University Av. to Spruce St.
14	SR-91	Eastbound	Spruce St. to I-215 Freeway
15	SR-60	Westbound	I-215 Freeway to Day St.
16	SR-60	Westbound	Day St. to Frederick St.
17	I-215	Southbound	SR-60/SR-91 Freeway to Blaine St.
18	I-215	Southbound	Blaine St. to University Av.
19	I-215	Southbound	University Av. to Martin Luther King Bl.
20	I-215	Southbound	Martin Luther King Bl. to Central Av.
21	I-215	Southbound	Central Av. to Box Springs Rd.
22	I-215	Southbound	Box Springs Rd. to SR-60/I-215 Freeway
23	I-215	Southbound	SR-60 Freeway to Eucalyptus Av.
24	I-215	Southbound	Eucalyptus Av. to Alessandro Bl.
25	I-215	Southbound	Alessandro Bl. to Cactus Av.
26	I-215	Southbound	Cactus Av. to Van Buren Bl.
27	I-215	Southbound	Van Buren Bl. to Harley Knox Bl.
28	I-215	Southbound	Harley Knox Bl. to Ramona Exwy.
29	I-215	Southbound	Ramona Exwy. to Nuevo Rd.
30	SR-91	Westbound	I-15 Freeway to McKinley St.
31	SR-91	Westbound	McKinley St. to Riverwalk Pkwy.
32	SR-91	Westbound	Riverwalk Pkwy. To Magnolia Av.
33	SR-91	Westbound	Magnolia Av. to La Sierra Av.
34	SR-91	Westbound	La Sierra Av. to Tyler Av.
35	SR-91	Westbound	Tyler Av. to Van Buren Bl.
36	SR-91	Westbound	Van Buren Bl. to Adams St.
37	SR-91	Westbound	Adams St. to Madison St.
38	SR-91	Westbound	Madison St. to Arlington Av.
39	SR-91	Westbound	Arlington Av. to Central Av.
40	SR-91	Westbound	Central Av. to 14th St.
41	SR-91	Westbound	14th St. to University Av.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Table 1 (Page 2 of 2): Basic Freeway Segment Analysis Locations

ID	Freeway	Direction	Segment
42	SR-91	Westbound	University Av. to Spruce St.
43	SR-91	Westbound	Spruce St. to I-215 Freeway
44	SR-60	Eastbound	I-215 Freeway to Day St.
45	SR-60	Eastbound	Day St. to Frederick St.
46	I-215	Northbound	SR-60/SR-91 Freeway to Blaine St.
47	I-215	Northbound	Blaine St. to University Av.
48	I-215	Northbound	University Av. to Martin Luther King Bl.
49	I-215	Northbound	Martin Luther King Bl. to Central Av.
50	I-215	Northbound	Central Av. to Box Springs Rd.
51	I-215	Northbound	Box Springs Rd. to SR-60/I-215 Freeway
52	I-215	Northbound	SR-60 Freeway to Eucalyptus Av.
53	I-215	Northbound	Eucalyptus Av. to Alessandro Bl.
54	I-215	Northbound	Alessandro Bl. to Cactus Av.
55	I-215	Northbound	Cactus Av. to Van Buren Bl.
56	I-215	Northbound	Van Buren Bl. to Harley Knox Bl.
57	I-215	Northbound	Harley Knox Bl. to Ramona Exwy.
58	I-215	Northbound	Ramona Exwy. to Nuevo Rd.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Table 2: Freeway Mainline LOS Thresholds

Level of Service	Description	Density Range (pc/mi/ln)[1]
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow.	>45.0

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM 2010.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Table 3 (Page 1 of 2): E+P Conditions Basic Freeway Segment Analysis

Freeway	Direction	Mainline Segment	Lanes[1]	Time Period	Existing (2015)			E+P		
					Volume	Density[2]	LOS	Volume	Density[2]	LOS
SR-91 Freeway	Eastbound	I-15 Freeway to McKinley St.	4	AM	5,085	20.1	C	5,103	20.1	C
				PM	3,209	12.8	B	3,218	12.9	B
		McKinley St. to Riverwalk Pkwy.	3	AM	4,463	24.5	C	4,481	24.8	C
				PM	4,472	24.6	C	4,481	24.7	C
		Riverwalk Pkwy. to Magnolia Av.	3	AM	4,783	26.7	D	4,801	26.8	D
				PM	4,886	26.9	D	4,895	27.2	D
		Magnolia Av. to La Sierra Av.	4	AM	4,725	18.6	C	4,743	18.6	C
				PM	4,790	18.8	C	4,799	18.9	C
		La Sierra Av. to Tyler Av.	4	AM	4,021	16.0	B	4,039	16.1	B
				PM	4,049	16.1	B	4,058	16.1	B
		Tyler Av. to Van Buren Bl.	4	AM	4,009	16.0	B	4,027	16.0	B
				PM	3,833	15.3	B	3,842	15.3	B
		Van Buren Bl. to Adams St.	4	AM	4,104	16.0	B	4,126	16.2	B
				PM	4,092	16.0	B	4,102	16.0	B
		Adams St. to Madison St.	3	AM	3,610	18.8	C	3,632	19.0	C
				PM	3,711	19.4	C	3,721	19.4	C
		Madison St. to Arlington Av.	4	AM	5,988	24.6	C	6,010	24.7	C
				PM	6,211	25.8	C	6,221	25.8	C
		Arlington Av. to Central Av.	4	AM	4,886	19.2	C	4,908	19.3	C
				PM	5,573	22.3	C	5,583	22.3	C
		Central Av. to 14th St.	3	AM	3,777	20.0	C	3,799	20.1	C
				PM	3,236	17.0	B	3,246	17.1	B
		14th St. to University Av.	4	AM	5,490	22.0	C	5,512	22.2	C
				PM	4,573	18.0	C	4,583	18.1	C
		University Av. to Spruce St.	5	AM	5,756	18.3	C	5,778	18.4	C
				PM	4,939	15.7	B	4,949	15.8	B
		Spruce St. to I-215 Freeway	4	AM	4,135	16.5	B	4,157	16.5	B
				PM	3,436	13.7	B	3,446	13.7	B
SR-60 Fwy	Westbound	I-215 Freeway to Day St.	3	AM	2,957	15.4	B	2,964	15.4	B
				PM	2,937	15.3	B	2,941	15.3	B
		Day St. to Frederick St.	3	AM	2,772	15.2	B	2,779	15.2	B
				PM	4,660	26.3	D	4,664	26.3	D
I-215 Freeway	Southbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	4,287	13.6	B	4,313	13.7	B
				PM	5,907	18.8	C	5,920	18.9	C
		Blaine St. to University Av.	4	AM	4,344	17.4	B	4,370	17.5	B
				PM	4,209	16.5	B	4,222	16.6	B
		University Av. to Martin Luther King Bl.	4	AM	4,640	19.0	C	4,666	19.2	C
				PM	5,182	20.8	C	5,195	20.9	C
		Martin Luther King Bl. to Central Av.	5	AM	3,460	11.0	A	3,486	11.0	B
				PM	4,518	14.2	B	4,531	14.2	B
		Central Av. to Box Springs Rd.	5	AM	5,093	16.3	B	5,119	16.4	B
				PM	6,720	21.2	C	6,733	21.3	C
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	4,643	18.2	C	4,669	18.3	C
				PM	5,966	23.9	C	5,979	23.9	C
		SR-60 Freeway to Eucalyptus Av.	5	AM	6,260	19.9	C	6,293	20.1	C
				PM	6,485	20.7	C	6,501	20.9	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	3,456	18.7	C	3,489	18.9	C
				PM	5,159	30.6	D	5,175	30.9	D
		Alessandro Bl. to Cactus Av.	4	AM	4,985	19.9	C	5,018	20.1	C
				PM	5,540	22.5	C	5,556	22.6	C
		Cactus Av. to Van Buren Bl.	4	AM	4,693	18.6	C	4,726	18.8	C
				PM	5,354	21.5	C	5,370	21.6	C
		Van Buren Bl. to Harley Knox Bl.	3	AM	2,544	13.4	B	2,577	13.7	B
				PM	3,855	20.5	C	3,871	20.7	C
		Harley Knox Bl. to Ramona Exwy.	3	AM	2,186	11.4	B	2,191	11.5	B
				PM	3,445	18.1	C	3,457	18.2	C
		Ramona Exwy. to Nuevo Rd.	3	AM	4,578	25.2	C	4,583	25.2	C
				PM	5,313	31.0	D	5,325	31.2	D

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Table 3 (Page 2 of 2): E+P Conditions Basic Freeway Segment Analysis

Freeway	Direction	Mainline Segment	Lanes[1]	Time Period	Existing (2015)			E+P		
					Volume	Density[2]	LOS	Volume	Density[2]	LOS
SR-91 Freeway	Westbound	I-15 Freeway to McKinley St.	4	AM	5,139	20.3	C	5,145	20.3	C
				PM	5,872	23.4	C	5,886	23.5	C
		McKinley St. to Riverwalk Pkwy.	3	AM	3,525	18.6	C	3,531	18.7	C
				PM	3,780	20.1	C	3,794	20.2	C
		Riverwalk Pkwy. to Magnolia Av.	3	AM	4,410	25.1	C	4,416	25.1	C
				PM	4,755	27.5	D	4,769	27.8	D
		Magnolia Av. to La Sierra Av.	3	AM	4,207	22.9	C	4,213	23.0	C
				PM	4,566	24.9	C	4,580	25.0	C
		La Sierra Av. to Tyler Av.	3	AM	3,556	18.9	C	3,562	18.9	C
				PM	3,719	19.8	C	3,733	19.9	C
		Tyler Av. to Van Buren Bl.	4	AM	3,465	13.7	B	3,471	13.8	B
				PM	3,896	15.5	B	3,910	15.6	B
		Van Buren Bl. to Adams St.	4	AM	4,554	18.1	C	4,560	18.2	C
				PM	4,602	18.3	C	4,618	18.4	C
		Adams St. to Madison St.	4	AM	4,595	18.0	C	4,601	18.1	C
				PM	5,028	19.6	C	5,044	19.7	C
		Madison St. to Arlington Av.	3	AM	3,699	19.6	C	3,705	19.7	C
				PM	4,072	21.8	C	4,088	21.9	C
		Arlington Av. to Central Av.	4	AM	4,708	18.7	C	4,714	18.7	C
				PM	4,840	19.2	C	4,856	19.3	C
		Central Av. to 14th St.	3	AM	4,270	23.1	C	4,276	23.1	C
				PM	4,794	26.8	D	4,810	26.9	D
		14th St. to University Av.	4	AM	2,745	10.9	A	2,751	10.9	A
				PM	2,234	8.8	A	2,250	9.0	A
		University Av. to Spruce St.	6	AM	4,520	11.9	B	4,526	11.9	B
				PM	3,786	9.8	A	3,802	9.9	A
		Spruce St. to I-215 Freeway	4	AM	4,246	16.9	B	4,252	16.9	B
				PM	4,513	18.0	B	4,529	18.0	C
SR-60 Fwy	Eastbound	I-215 Freeway to Day St.	5	AM	3,030	9.8	A	3,032	9.8	A
				PM	3,159	10.0	A	3,165	10.0	A
		Day St. to Frederick St.	4	AM	1,607	6.5	A	1,609	6.5	A
				PM	2,809	11.0	A	2,815	11.0	A
I-215 Freeway	Northbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	3,532	11.2	B	3,540	11.3	B
				PM	3,453	11.0	A	3,472	11.1	B
		Blaine St. to University Av.	5	AM	4,615	14.8	B	4,623	14.9	B
				PM	3,913	12.8	B	3,932	12.9	B
		University Av. to Martin Luther King Bl.	4	AM	6,526	27.7	D	6,534	27.8	D
				PM	5,849	24.3	C	5,868	24.4	C
		Martin Luther King Bl. to Central Av.	4	AM	5,255	21.4	C	5,263	21.4	C
				PM	5,332	21.9	C	5,351	22.0	C
		Central Av. to Box Springs Rd.	5	AM	5,098	16.5	B	5,106	16.6	B
				PM	5,614	18.7	C	5,633	18.8	C
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	6,028	24.3	C	6,036	24.4	C
				PM	6,305	25.6	C	6,324	25.9	C
		SR-60 Freeway to Eucalyptus Av.	3	AM	3,567	18.8	C	3,577	18.8	C
				PM	3,832	20.4	C	3,857	20.5	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	4,693	26.0	D	4,703	26.1	D
				PM	5,354	31.4	D	5,379	31.7	D
		Alessandro Bl. to Cactus Av.	4	AM	2,724	10.9	A	2,734	11.0	A
				PM	2,523	10.0	A	2,548	10.2	A
		Cactus Av. to Van Buren Bl.	4	AM	3,679	14.6	B	3,689	14.7	B
				PM	2,678	10.6	A	2,703	10.8	A
		Van Buren Bl. to Harley Knox Bl.	3	AM	4,092	22.0	C	4,102	22.0	C
				PM	3,247	17.1	B	3,272	17.3	B
		Harley Knox Bl. to Ramona Exwy.	3	AM	3,721	19.6	C	3,729	19.7	C
				PM	2,779	14.6	B	2,782	14.6	B
		Ramona Exwy. to Nuevo Rd.	3	AM	4,693	26.0	D	4,701	26.1	D
				PM	5,354	31.4	D	5,357	31.5	D

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Table 4 (Page 1 of 2): Opening Year Cumulative (2020) Conditions Basic Freeway Segment Analysis

Freeway	Direction	Mainline Segment	Lanes[1]	Time Period	2020 Without Project			2020 With Project		
					Volume[2]	Density[3]	LOS	Volume[2]	Density[3]	LOS
SR-91 Freeway	Eastbound	I-15 Freeway to McKinley St.	5	AM	5,828	18.5	C	5,846	18.5	C
				PM	3,674	11.8	B	3,683	11.8	B
		McKinley St. to Riverwalk Pkwy.	4	AM	5,154	20.9	C	5,172	21.1	C
				PM	5,076	20.5	C	5,085	20.5	C
		Riverwalk Pkwy. to Magnolia Av.	3	AM	5,518	33.5	D	5,536	33.7	D
				PM	5,541	32.9	D	5,549	33.0	D
		Magnolia Av. to La Sierra Av.	4	AM	5,467	22.0	C	5,485	22.1	C
				PM	5,442	21.8	C	5,451	21.8	C
		La Sierra Av. to Tyler Av.	4	AM	4,709	19.1	C	4,726	19.1	C
				PM	5,633	18.6	C	4,642	18.7	C
		Tyler Av. to Van Buren Bl.	4	AM	4,706	19.0	C	4,724	19.1	C
				PM	4,402	17.6	B	4,410	17.7	B
		Van Buren Bl. to Adams St.	4	AM	4,859	19.3	C	4,881	19.4	C
				PM	4,721	18.5	C	4,731	18.6	C
		Adams St. to Madison St.	3	AM	4,336	23.5	C	4,358	23.8	C
				PM	4,310	23.1	C	4,320	23.3	C
		Madison St. to Arlington Av.	4	AM	5,993	25.1	C	6,015	25.2	C
				PM	6,085	25.4	C	6,095	25.5	C
		Arlington Av. to Central Av.	4	AM	4,955	19.8	C	4,977	20.0	C
				PM	5,485	22.1	C	5,495	22.1	C
		Central Av. to 14th St.	3	AM	3,957	21.5	C	3,979	21.6	C
				PM	3,298	17.6	B	3,309	17.6	B
		14th St. to University Av.	4	AM	5,593	22.9	C	5,615	23.1	C
				PM	4,574	18.2	C	4,584	18.3	C
		University Av. to Spruce St.	5	AM	5,859	19.0	C	5,880	19.0	C
				PM	4,928	15.8	B	4,939	15.9	B
		Spruce St. to I-215 Freeway	4	AM	4,328	17.6	B	4,350	17.6	B
				PM	3,507	14.1	B	3,518	14.2	B
SR-60 Fwy	Westboun	I-215 Freeway to Day St.	3	AM	3,354	17.5	B	3,362	17.5	B
				PM	3,289	17.7	B	3,293	17.1	B
		Day St. to Frederick St.	3	AM	3,131	17.2	B	3,138	17.2	B
				PM	5,182	30.6	D	5,185	30.6	D
I-215 Freeway	Southbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	5,341	17.3	B	5,366	17.4	B
				PM	6,885	22.5	C	6,897	22.5	C
		Blaine St. to University Av.	4	AM	5,462	22.6	C	5,488	22.9	C
				PM	5,049	20.1	C	5,061	20.3	C
		University Av. to Martin Luther King Bl.	4	AM	5,848	25.0	C	5,873	25.3	C
				PM	6,162	25.8	C	6,174	25.9	C
		Martin Luther King Bl. to Central Av.	5	AM	4,610	14.9	B	4,635	15.0	B
				PM	5,469	17.3	B	5,481	17.4	B
		Central Av. to Box Springs Rd.	5	AM	6,473	21.1	C	6,499	21.4	C
				PM	7,939	26.4	D	7,952	26.4	D
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	6,056	25.1	C	6,081	25.4	C
				PM	7,151	31.0	D	7,164	31.1	D
		SR-60 Freeway to Eucalyptus Av.	5	AM	8,217	28.4	D	8,250	28.6	D
				PM	7,960	27.0	D	7,976	27.1	D
		Eucalyptus Av. to Alessandro Bl.	3	AM	5,186	31.8	D	5,219	32.3	D
				PM	6,539	**49.0**	**F**	6,555	**49.3**	**F**
		Alessandro Bl. to Cactus Av.	4	AM	6,939	31.0	D	6,972	31.5	D
				PM	7,003	31.0	D	7,019	31.1	D
		Cactus Av. to Van Buren Bl.	4	AM	6,217	26.1	D	6,250	26.3	D
				PM	7,411	33.6	D	7,427	33.8	D
		Van Buren Bl. to Harley Knox Bl.	3	AM	3,826	21.2	C	3,859	21.5	C
				PM	5,321	32.6	D	5,337	32.7	D
		Harley Knox Bl. to Ramona Exwy.	3	AM	2,853	15.3	B	2,858	15.3	B
				PM	4,944	28.9	D	4,956	29.0	D
		Ramona Exwy. to Nuevo Rd.	3	AM	5,470	33.0	D	5,475	33.1	D
				PM	6,832	**52.8**	**F**	6,844	**53.1**	**F**

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Table 4 (Page 2 of 2): Opening Year Cumulative (2020) Conditions Basic Freeway Segment Analysis

Freeway	Direction	Mainline Segment	Lanes[1]	Time Period	2020 Without Project			2020 With Project		
					Volume[2]	Density[3]	LOS	Volume[2]	Density[3]	LOS
SR-91 Freeway	Westbound	I-15 Freeway to McKinley St.	4	AM	5,789	23.4	C	5,795	23.4	C
				PM	6,718	28.3	D	6,731	28.4	D
		McKinley St. to Riverwalk Pkwy.	3	AM	4,013	21.6	C	4,019	21.6	C
				PM	4,421	24.5	C	4,435	24.6	C
		Riverwalk Pkwy. to Magnolia Av.	3	AM	4,997	30.0	D	5,002	30.0	D
				PM	5,509	**35.1**	**E**	5,523	**35.5**	**E**
		Magnolia Av. to La Sierra Av.	3	AM	4,779	27.2	D	4,785	27.2	D
				PM	5,315	31.3	D	5,329	31.7	D
		La Sierra Av. to Tyler Av.	3	AM	4,068	22.1	C	4,074	22.1	C
				PM	4,400	24.5	C	4,413	24.6	C
		Tyler Av. to Van Buren Bl.	4	AM	4,974	15.9	B	3,979	15.9	B
				PM	4,606	18.5	C	4,620	18.7	C
		Van Buren Bl. to Adams St.	4	AM	5,205	21.0	C	5,212	21.1	C
				PM	5,439	22.3	C	5,456	22.5	C
		Adams St. to Madison St.	4	AM	5,259	20.9	C	5,266	21.0	C
				PM	5,933	24.1	C	5,950	24.2	C
		Madison St. to Arlington Av.	3	AM	3,676	19.7	C	3,683	19.7	C
				PM	4,202	23.2	C	4,219	23.4	C
		Arlington Av. to Central Av.	4	AM	4,639	18.6	C	4,646	18.6	C
				PM	4,941	20.1	C	4,958	20.1	C
		Central Av. to 14th St.	3	AM	4,252	23.2	C	4,258	23.3	C
				PM	4,956	28.8	D	4,973	29.0	D
		14th St. to University Av.	4	AM	2,809	11.3	B	2,815	11.4	B
				PM	2,535	10.4	A	2,552	10.5	A
		University Av. to Spruce St.	6	AM	4,500	11.9	B	4,507	12.0	B
				PM	4,023	10.7	A	4,040	10.8	A
		Spruce St. to I-215 Freeway	4	AM	4,245	17.1	B	4,252	17.2	B
				PM	4,723	19.2	C	4,740	19.3	C
SR-60 Fwy	Eastbound	I-215 Freeway to Day St.	5	AM	3,387	10.9	A	3,389	10.9	A
				PM	3,585	11.4	B	3,591	11.4	B
		Day St. to Frederick St.	4	AM	1,807	7.3	A	1,809	7.3	A
				PM	3,178	12.5	B	3,184	12.5	B
I-215 Freeway	Northbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	4,215	13.5	B	4,223	13.6	B
				PM	4,472	14.5	B	4,491	14.6	B
		Blaine St. to University Av.	5	AM	5,445	17.7	B	5,452	17.7	B
				PM	5,043	16.7	B	5,062	16.8	B
		University Av. to Martin Luther King Bl.	4	AM	7,588	**35.3**	**E**	7,596	**35.4**	**E**
				PM	7,243	33.5	D	7,262	33.9	D
		Martin Luther King Bl. to Central Av.	4	AM	6,219	26.5	D	6,227	26.5	D
				PM	6,741	30.1	D	6,760	30.4	D
		Central Av. to Box Springs Rd.	5	AM	6,080	19.9	C	6,087	20.0	C
				PM	7,117	24.6	C	7,137	24.9	C
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	7,144	31.0	D	7,152	31.0	D
				PM	7,966	**37.6**	**E**	7,985	**38.1**	**E**
		SR-60 Freeway to Eucalyptus Av.	3	AM	4,632	25.7	C	4,642	25.8	C
				PM	5,541	34.3	D	5,566	34.9	D
		Eucalyptus Av. to Alessandro Bl.	3	AM	5,912	**37.9**	**E**	5,922	**38.0**	**E**
				PM	7,388	**68.1**	**F**	7,413	**68.9**	**F**
		Alessandro Bl. to Cactus Av.	**5**	AM	3,775	12.3	B	3,785	12.3	B
				PM	4,332	14.3	B	4,357	14.4	B
		Cactus Av. to Van Buren Bl.	4	AM	5,378	21.8	C	5,388	21.9	C
				PM	4,197	16.8	B	4,222	16.9	B
		Van Buren Bl. to Harley Knox Bl.	3	AM	5,505	34.2	D	5,515	34.3	D
				PM	4,634	26.6	D	4,659	26.8	D
		Harley Knox Bl. to Ramona Exwy.	3	AM	5,150	30.5	D	5,158	30.6	D
				PM	3,493	18.7	C	3,496	18.7	C
		Ramona Exwy. to Nuevo Rd.	3	AM	6,070	**40.2**	**E**	6,078	**40.3**	**E**
				PM	6,317	**42.8**	**E**	6,320	**43.3**	**E**

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and reflect new auxiliary lanes and assume the HOV lane in each direction.

[2] Where applicable, volumes shown on this table have been reduced to account for the proposed HOV lane in each direction.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

ATTACHMENT A
CALTRANS LETTER, FEBRUARY 10, 2014

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
PLANNING (MS 722)
464 WEST 4th STREET, 6th Floor
SAN BERNARDINO, CA 92401-1400
PHONE (909) 383-4557
FAX (909) 383-5936
TTY (909) 383-6300
www.dot.ca.gov/dist8

Flex your power!
Be energy efficient!

February 10, 2014

Michael Lloyd
Senior Traffic Engineer
City of Moreno Valley
Planning Department
14177 Frederick Street
Moreno Valley, CA 92552

RE: Scope of Study for State Highway Facilities in CEQA Documents

Mr. Lloyd:

It has been brought to our attention that clarification is needed related to the interpretation and use of the California Department of Transportation's "Guide for the Preparation of Traffic Impact Studies" (December 2002). On January 21, 2014, Tracy Zinn of T&B Planning, Inc. and Aric Evatt of Urban Crossroads, Inc. attended a meeting in our office, during which they asked for clarification of our Guidelines and particularly Section II (When a Traffic Impact Study is Needed) Subsection A (Trip Generation Thresholds). It is our understanding that Ms. Zinn and Mr. Evatt are consultants working on several traffic studies and California Environmental Quality Act (CEQA) compliance documents for which the City of Moreno Valley is the CEQA lead agency.

As the owner of the State Highway System (SHS), it is our responsibility to coordinate and consult with local jurisdictions when proposed development may impact our facilities. As a responsible agency under CEQA, it is also our responsibility to make recommendations to offset impacts associated with projects that add traffic to the SHS.

This letter clarifies Section II, Subsection A of our Guidelines. It also describes the approach and geographic scope of analysis that Caltrans District 8 finds acceptable for the evaluation of direct and cumulative impacts to the SHS that may be caused by industrial, warehouse, and logistics center development in the geographic area of the Moreno Valley Industrial Area Plan (MVIAP). This area is generally bounded by March Air Reserve Base to the west, Oleander Avenue to the south, Wildwood Street to the north, and Indian Avenue (north of Cardinal Avenue) and Kitching Street (south of Cardinal Avenue) to the east.

1. When a TIS is Needed: If a development project will add traffic to the SHS, a traffic impact study (TIS) is recommended by Caltrans if either of the first two criteria are met. The third criteria may come into play based on consultations with Caltrans. The third criteria under section II subsection A is slightly different then criteria 1 and 2. We point out that it MAY need a study. This is due to specific or unique contexts causing potentially significant impacts with lesser volumes.

Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

2. Requested Geographic Scope of Study for Freeway Mainline Segments: Once it is determined that a traffic study is needed the criteria set forth in section ii and based on consultation with Caltrans can be used to determine the geographical scope of the study. For industrial, warehouse, and logistics center development projects in the MVIAP, Caltrans District 8 requests quantitative analysis of project-related traffic on freeway mainline segments where the project would add 50 or more peak hour trips and/or the most heavily impacted segment in each direction. Because impacts to freeway segments dissipate with distance from the point of SHS entry, quantitative study of a larger area is not highly useful to Caltrans decision-making. Typically, when a project's traffic volumes dissipate to fewer than 50 peak hour trips on a freeway mainline segment, they become unrecognizable from other traffic on the SHS.

3. Significance Thresholds for SHS Roadway Segments: Caltrans District 8 recommends that the City apply the following significance thresholds in its CEQA documents for impacts to SHS freeway segments. Impacts are considered significant by Caltrans if:
    i. The traffic study finds that the LOS of a segment will degrade form D or better to E or F.
    ii. The traffic study finds that the project will exacerbate an already deficient condition. A segment that is operating at or near capacity or under saturated conditions (LOS E&F) is deemed to be deficient.

4. Mitigation for Significant Impacts: At this time, Caltrans has no fee programs or other mitigation programs in place for the mitigation of direct or cumulative impacts caused by development projects in the MVIAP on SHS roadway segments. Mitigation of direct and cumulative impacts to freeway ramps are satisfied by mandatory participation in the TUMF program.

We appreciate the opportunity to offer comments concerning this project. If you have any questions regarding this letter, please contact Talvin Dennis at (909) 806-3957 or myself at (909) 383-4557 for assistance.

Sincerely,

Original signed by Daniel Kopulsky

DANIEL KOPULSKY
Office Chief
Community and Regional Planning

Cc: Tracy Zinn, T&B Planning, Inc.
Aric Evatt, Urban Crossroads, Inc.

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ATTACHMENT B
EXISTING (2015) CONDITIONS
HCS2010 BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5085*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1396*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*20.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4463*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1657*	pc/h/ln
S	*67.6*	mph
D = v_p / S	*24.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4783*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1768*	pc/h/ln
S	*66.3*	mph
D = v_p / S	*26.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4725*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1297*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4021*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1120*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4009*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1117*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4104*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1121*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3610*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1315*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5988*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1660*	pc/h/ln
S	*67.5*	mph
D = v_p / S	*24.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4886*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1341*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3777*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1389*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*20.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5490*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*3*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1514*	pc/h/ln
S	*68.9*	mph
D = v_p / S	*22.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5756*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1283*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4135*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1152*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2957*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1077*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2772*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1065*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4287*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*955*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4344*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1216*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4640*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1324*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3460*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*767*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.0*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5093*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1140*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4643*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1274*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6260*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1388*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*19.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3456*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1309*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4985*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1388*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*19.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4693*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1301*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2544*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*940*	pc/h/ln	Design LOS	
S	*70.0*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*13.4*	pc/mi/ln	S	mph
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2186*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*800*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4578*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1692*	pc/h/ln
S	*67.2*	mph
D = v_p / S	*25.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5139*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1410*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3525*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1303*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4410*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1686*	pc/h/ln
S	*67.3*	mph
D = v_p / S	*25.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4207*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1570*	pc/h/ln
S	*68.4*	mph
D = v_p / S	*22.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3556*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1321*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3465*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*960*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4554*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1268*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4595*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1261*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*18.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3699*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1367*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4708*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1305*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4270*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1578*	pc/h/ln
S	*68.3*	mph
D = v_p / S	*23.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2745*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*765*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.9*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4520*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*831*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4246*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1183*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3030*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*685*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*9.8*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1607*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*454*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*6.5*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3532*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*787*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4615*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1038*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6526*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1818*	pc/h/ln
S	*65.6*	mph
D = v_p / S	*27.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5255*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1478*	pc/h/ln
S	*69.1*	mph
D = v_p / S	*21.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5098*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1158*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6028*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1646*	pc/h/ln
S	*67.7*	mph
D = v_p / S	*24.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3567*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1312*	pc/h/ln	Design LOS	
S	*69.9*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*18.8*	pc/mi/ln	S	mph
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4693*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*4*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1734*	pc/h/ln	Design LOS	
S	*66.7*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*26.0*	pc/mi/ln	S	mph
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2724*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*766*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.9*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3679*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1025*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4092*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*4*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*	
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*	

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1512*	pc/h/ln	Design LOS	
S	*68.9*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*22.0*	pc/mi/ln	S	mph
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Harley Knox to Ramona Exwy*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3721*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1368*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4693*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1734*	pc/h/ln
S	*66.7*	mph
D = v_p / S	*26.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3209*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*898*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*12.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4472*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1661*	pc/h/ln
S	*67.5*	mph
D = v_p / S	*24.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4886*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1779*	pc/h/ln
S	*66.1*	mph
D = v_p / S	*26.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4790*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1315*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4049*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1128*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3833*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1068*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4092*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1118*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3711*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1351*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6211*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1722*	pc/h/ln
S	*66.8*	mph
D = v_p / S	*25.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5573*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1530*	pc/h/ln
S	*68.7*	mph
D = v_p / S	*22.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3236*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1190*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4573*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1261*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*18.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4939*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1101*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3436*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*957*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2937*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1069*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4660*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1747*	pc/h/ln
S	*66.5*	mph
D = v_p / S	*26.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5907*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1316*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4209*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1155*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5182*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1443*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*20.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4518*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*992*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6720*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1468*	pc/h/ln
S	*69.2*	mph
D = v_p / S	*21.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5966*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*0*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*1.000*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1621*	pc/h/ln
S	*67.9*	mph
D = v_p / S	*23.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6485*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1438*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*20.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5159*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1944*	pc/h/ln
S	*63.6*	mph
D = v_p / S	*30.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5540*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1543*	pc/h/ln	Design LOS	
S	*68.6*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*22.5*	pc/mi/ln	S	mph
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5354*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1484*	pc/h/ln	Design LOS	
S	*69.1*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*21.5*	pc/mi/ln	S	mph
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3855*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1425*	pc/h/ln
S	*69.4*	mph
D = v_p / S	*20.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3445*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1267*	pc/h/ln	Design LOS	
S	*69.9*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*18.1*	pc/mi/ln	S	mph
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5313*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1963*	pc/h/ln
S	*63.2*	mph
D = v_p / S	*31.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5872*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*0*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*1.000*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1596*	pc/h/ln
S	*68.2*	mph
D = v_p / S	*23.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3780*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1397*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4755*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1809*	pc/h/ln
S	*65.7*	mph
D = v_p / S	*27.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4566*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1679*	pc/h/ln
S	*67.3*	mph
D = v_p / S	*24.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3719*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1381*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*19.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3896*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1085*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4602*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1282*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5028*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*0*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*1.000*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1366*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4072*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1505*	pc/h/ln
S	*68.9*	mph
D = v_p / S	*21.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4840*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1342*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4794*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1772*	pc/h/ln
S	*66.2*	mph
D = v_p / S	*26.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2234*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*619*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*8.8*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3786*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*689*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*9.8*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4513*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1257*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*18.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3159*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*700*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.0*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2809*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*767*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.0*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3453*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*769*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.0*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3913*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*897*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*12.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5849*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1645*	pc/h/ln
S	*67.7*	mph
D = v_p / S	*24.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5332*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1507*	pc/h/ln
S	*68.9*	mph
D = v_p / S	*21.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Central Av to Box Springs Rd*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5614*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1306*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6305*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*0*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*1.000*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1713*	pc/h/ln
S	*66.9*	mph
D = v_p / S	*25.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3832*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1416*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5354*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*4*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*	
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*	

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1979*	pc/h/ln	Design LOS	
S	*63.0*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*31.4*	pc/mi/ln	S	mph
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2523*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*703*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.0*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2678*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*742*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.6*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3247*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1200*	pc/h/ln	Design LOS	
S	*70.0*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*17.1*	pc/mi/ln	S	mph
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2779*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1022*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5354*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1979*	pc/h/ln
S	*63.0*	mph
D = v_p / S	*31.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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ATTACHMENT C
E+P CONDITIONS
HCS2010 BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5103*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1401*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4481*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1672*	pc/h/ln
S	*67.4*	mph
D = v_p / S	*24.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4801*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1774*	pc/h/ln
S	*66.2*	mph
D = v_p / S	*26.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4743*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1302*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4039*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1130*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4027*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1122*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4126*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1132*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3632*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1329*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6010*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1666*	pc/h/ln
S	*67.5*	mph
D = v_p / S	*24.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4908*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1347*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3799*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*3*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1397*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5512*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1528*	pc/h/ln
S	*68.8*	mph
D = v_p / S	*22.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5778*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*5*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1287*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4157*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1158*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2964*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1079*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2779*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1067*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4313*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*961*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4370*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1223*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4666*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1338*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3486*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*773*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5119*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1146*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4669*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1281*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6293*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*4*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*	
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*	

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1395*	pc/h/ln	Design LOS	
S	*69.6*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*20.1*	pc/mi/ln	S	mph
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3489*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1321*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5018*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1398*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4726*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1316*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2577*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*957*	pc/h/ln	Design LOS	
S	*70.0*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*13.7*	pc/mi/ln	S	mph
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2191*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*806*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4583*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1694*	pc/h/ln
S	*67.2*	mph
D = v_p / S	*25.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5145*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1412*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3531*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1305*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4416*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1688*	pc/h/ln
S	*67.2*	mph
D = v_p / S	*25.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4213*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1572*	pc/h/ln
S	*68.4*	mph
D = v_p / S	*23.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3562*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1323*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3471*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*967*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4560*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1270*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4601*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1263*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*18.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3705*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*4*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1369*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4714*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*4*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1307*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4276*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*4*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1580*	pc/h/ln
S	*68.3*	mph
D = v_p / S	*23.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2751*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*766*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.9*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4526*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*832*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4252*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*5*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1184*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3032*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*685*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*9.8*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1609*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*455*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*6.5*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3540*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*789*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4623*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1045*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6534*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1820*	pc/h/ln
S	*65.5*	mph
D = v_p / S	*27.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5263*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*7*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1480*	pc/h/ln
S	*69.1*	mph
D = v_p / S	*21.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5106*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1160*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6036*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1648*	pc/h/ln
S	*67.7*	mph
D = v_p / S	*24.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3577*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1315*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4703*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1738*	pc/h/ln	Design LOS	
S	*66.6*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*26.1*	pc/mi/ln	S	mph
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2734*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*769*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.0*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3689*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1028*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4102*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1516*	pc/h/ln	Design LOS	
S	*68.8*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*22.0*	pc/mi/ln	S	mph
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Harley Knox to Ramona Exwy*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3729*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1371*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4701*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1737*	pc/h/ln
S	*66.7*	mph
D = v_p / S	*26.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3218*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*901*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*12.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4481*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1664*	pc/h/ln
S	*67.5*	mph
D = v_p / S	*24.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4895*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1791*	pc/h/ln
S	*65.9*	mph
D = v_p / S	*27.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4799*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1317*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4058*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1130*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3842*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1070*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4102*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1120*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3721*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1355*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6221*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*4*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1724*	pc/h/ln
S	*66.8*	mph
D = v_p / S	*25.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5583*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1532*	pc/h/ln
S	*68.7*	mph
D = v_p / S	*22.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3246*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*3*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1194*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4583*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1264*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*18.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4949*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1103*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3446*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*960*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2941*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1071*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4664*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1749*	pc/h/ln
S	*66.5*	mph
D = v_p / S	*26.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5920*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1319*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4222*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*3*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1164*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5195*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*5*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1447*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*20.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4531*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*995*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6733*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1471*	pc/h/ln
S	*69.1*	mph
D = v_p / S	*21.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5979*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*0*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*1.000*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1625*	pc/h/ln
S	*67.9*	mph
D = v_p / S	*23.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6501*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1449*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*20.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5175*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1959*	pc/h/ln
S	*63.3*	mph
D = v_p / S	*30.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5556*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1548*	pc/h/ln
S	*68.6*	mph
D = v_p / S	*22.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5370*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1488*	pc/h/ln
S	*69.0*	mph
D = v_p / S	*21.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3871*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1438*	pc/h/ln	Design LOS	
S	*69.3*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*20.7*	pc/mi/ln	S	mph
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Harley Knox to Ramona Exwy*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3457*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1271*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5325*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1968*	pc/h/ln
S	*63.2*	mph
D = v_p / S	*31.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5886*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*0*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*1.000*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1599*	pc/h/ln
S	*68.2*	mph
D = v_p / S	*23.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3794*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1402*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4769*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1823*	pc/h/ln
S	*65.5*	mph
D = v_p / S	*27.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4580*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1684*	pc/h/ln
S	*67.3*	mph
D = v_p / S	*25.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3733*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1386*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*19.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3910*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1089*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4618*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1286*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5044*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*0*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*1.000*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1371*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4088*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*4*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1511*	pc/h/ln
S	*68.9*	mph
D = v_p / S	*21.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4856*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*4*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1346*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4810*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*4*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1778*	pc/h/ln
S	*66.1*	mph
D = v_p / S	*26.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2250*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*627*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*9.0*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
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LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3802*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*1*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*692*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*9.9*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4529*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1261*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*18.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3165*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*702*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.0*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
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LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2815*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*769*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.0*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3472*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*774*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3932*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*11*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*902*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*12.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
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LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5868*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1650*	pc/h/ln
S	*67.7*	mph
D = v_p / S	*24.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5351*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*8*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1512*	pc/h/ln
S	*68.9*	mph
D = v_p / S	*22.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Central Av to Box Springs Rd*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5633*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1310*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
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LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6324*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1727*	pc/h/ln
S	*66.8*	mph
D = v_p / S	*25.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3857*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1425*	pc/h/ln
S	*69.4*	mph
D = v_p / S	*20.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5379*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1988*	pc/h/ln
S	*62.8*	mph
D = v_p / S	*31.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2548*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*713*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.2*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2703*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*753*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.8*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3272*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*4*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1209*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
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LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Harley Knox to Ramona Exwy*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2782*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1023*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*E+P*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5357*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1980*	pc/h/ln
S	*62.9*	mph
D = v_p / S	*31.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

ATTACHMENT D
OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS
HCS2010 BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5828*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1292*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5154*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1450*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*20.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5518*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2059*	pc/h/ln
S	*61.4*	mph
D = v_p / S	*33.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5467*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1515*	pc/h/ln
S	*68.8*	mph
D = v_p / S	*22.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4709*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1331*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4706*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1324*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4859*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1347*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4336*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1602*	pc/h/ln
S	*68.1*	mph
D = v_p / S	*23.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5993*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1686*	pc/h/ln
S	*67.3*	mph
D = v_p / S	*25.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4955*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1380*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*19.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3957*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1484*	pc/h/ln
S	*69.1*	mph
D = v_p / S	*21.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5593*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1565*	pc/h/ln
S	*68.5*	mph
D = v_p / S	*22.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5859*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1325*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4328*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1229*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3354*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1227*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3131*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1202*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5341*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1208*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5462*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1551*	pc/h/ln
S	*68.6*	mph
D = v_p / S	*22.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5848*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1684*	pc/h/ln
S	*67.3*	mph
D = v_p / S	*25.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4610*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1042*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Central Av to Box Springs Rd*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6473*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1463*	pc/h/ln
S	*69.2*	mph
D = v_p / S	*21.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6056*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1687*	pc/h/ln	Design LOS	
S	*67.2*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*25.1*	pc/mi/ln	S	mph
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8217*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1849*	pc/h/ln
S	*65.1*	mph
D = v_p / S	*28.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5186*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1992*	pc/h/ln
S	*62.7*	mph
D = v_p / S	*31.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6939*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1961*	pc/h/ln
S	*63.3*	mph
D = v_p / S	*31.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6217*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1740*	pc/h/ln
S	*66.6*	mph
D = v_p / S	*26.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3826*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*12*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*	
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*	

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1469*	pc/h/ln
S	*69.2*	mph
D = v_p / S	*21.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2853*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1070*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5470*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2041*	pc/h/ln
S	*61.8*	mph
D = v_p / S	*33.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5789*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1597*	pc/h/ln
S	*68.2*	mph
D = v_p / S	*23.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4013*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1490*	pc/h/ln
S	*69.0*	mph
D = v_p / S	*21.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4997*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1919*	pc/h/ln
S	*64.0*	mph
D = v_p / S	*30.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4779*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1792*	pc/h/ln
S	*65.9*	mph
D = v_p / S	*27.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4068*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1518*	pc/h/ln
S	*68.8*	mph
D = v_p / S	*22.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3974*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1112*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5205*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1457*	pc/h/ln
S	*69.2*	mph
D = v_p / S	*21.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5259*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*3*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1451*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*20.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3676*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1372*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4639*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1298*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4252*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1587*	pc/h/ln
S	*68.3*	mph
D = v_p / S	*23.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2809*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*794*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4500*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*836*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4245*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1194*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3387*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*766*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.9*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1807*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*511*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*7.3*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
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LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4215*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*948*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5445*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1237*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7588*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2124*	pc/h/ln
S	*60.1*	mph
D = v_p / S	*35.3*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6219*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1758*	pc/h/ln
S	*66.4*	mph
D = v_p / S	*26.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Central Av to Box Springs Rd*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6080*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1388*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*19.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7144*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1961*	pc/h/ln
S	*63.3*	mph
D = v_p / S	*31.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4632*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1720*	pc/h/ln
S	*66.9*	mph
D = v_p / S	*25.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5912*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2206*	pc/h/ln
S	*58.3*	mph
D = v_p / S	*37.9*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3775*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*862*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*12.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5378*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1505*	pc/h/ln
S	*68.9*	mph
D = v_p / S	*21.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5505*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2084*	pc/h/ln	Design LOS	
S	*60.9*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*34.2*	pc/mi/ln	S	mph
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Harley Knox to Ramona Exwy*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5150*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1941*	pc/h/ln
S	*63.6*	mph
D = v_p / S	*30.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6070*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2276*	pc/h/ln
S	*56.6*	mph
D = v_p / S	*40.2*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3674*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*827*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5076*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1421*	pc/h/ln
S	*69.4*	mph
D = v_p / S	*20.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5541*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2038*	pc/h/ln
S	*61.9*	mph
D = v_p / S	*32.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5442*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1501*	pc/h/ln
S	*68.9*	mph
D = v_p / S	*21.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4633*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1303*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4402*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1232*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4721*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1296*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4310*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1577*	pc/h/ln
S	*68.4*	mph
D = v_p / S	*23.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6085*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1703*	pc/h/ln
S	*67.1*	mph
D = v_p / S	*25.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5485*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1520*	pc/h/ln
S	*68.8*	mph
D = v_p / S	*22.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3298*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1231*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4574*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1274*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4928*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1109*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3507*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*986*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3289*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1198*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5182*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1943*	pc/h/ln
S	*63.6*	mph
D = v_p / S	*30.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6885*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1542*	pc/h/ln
S	*68.6*	mph
D = v_p / S	*22.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5049*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1399*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6162*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1725*	pc/h/ln
S	*66.8*	mph
D = v_p / S	*25.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5469*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1213*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Central Av to Box Springs Rd*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7939*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1752*	pc/h/ln
S	*66.5*	mph
D = v_p / S	*26.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7151*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*2*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*	
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*	

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1963*	pc/h/ln	Design LOS	
S	*63.2*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*31.0*	pc/mi/ln	S	mph
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7960*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1782*	pc/h/ln
S	*66.1*	mph
D = v_p / S	*27.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6539*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2488*	pc/h/ln
S	*50.8*	mph
D = v_p / S	*49.0*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7003*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1960*	pc/h/ln
S	*63.3*	mph
D = v_p / S	*31.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7411*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2064*	pc/h/ln
S	*61.3*	mph
D = v_p / S	*33.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5321*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2024*	pc/h/ln	Design LOS	
S	*62.1*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*32.6*	pc/mi/ln	S	mph
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4944*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1872*	pc/h/ln
S	*64.8*	mph
D = v_p / S	*28.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6832*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2562*	pc/h/ln
S	*48.5*	mph
D = v_p / S	*52.8*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6718*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1844*	pc/h/ln
S	*65.2*	mph
D = v_p / S	*28.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4421*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1658*	pc/h/ln
S	*67.6*	mph
D = v_p / S	*24.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5509*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2116*	pc/h/ln
S	*60.3*	mph
D = v_p / S	*35.1*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5315*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1974*	pc/h/ln
S	*63.1*	mph
D = v_p / S	*31.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4400*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1658*	pc/h/ln
S	*67.6*	mph
D = v_p / S	*24.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4606*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1295*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5439*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1530*	pc/h/ln
S	*68.7*	mph
D = v_p / S	*22.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5933*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1636*	pc/h/ln
S	*67.8*	mph
D = v_p / S	*24.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4202*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1583*	pc/h/ln
S	*68.3*	mph
D = v_p / S	*23.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4941*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1396*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*20.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4956*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1867*	pc/h/ln
S	*64.8*	mph
D = v_p / S	*28.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2535*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*727*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.4*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4023*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*751*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.7*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4723*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1341*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3585*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*799*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3178*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*872*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*12.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4472*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1016*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5043*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1168*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7243*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2057*	pc/h/ln
S	*61.5*	mph
D = v_p / S	*33.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6741*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1923*	pc/h/ln
S	*63.9*	mph
D = v_p / S	*30.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7117*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*15*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.930*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1663*	pc/h/ln
S	*67.5*	mph
D = v_p / S	*24.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7966*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2197*	pc/h/ln
S	*58.5*	mph
D = v_p / S	*37.6*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5541*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2088*	pc/h/ln	Design LOS	
S	*60.9*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*34.3*	pc/mi/ln	S	mph
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7388*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2784*	pc/h/ln
S	*40.9*	mph
D = v_p / S	*68.1*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4332*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*998*	pc/h/ln	Design LOS	
S	*70.0*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*14.3*	pc/mi/ln	S	mph
LOS	*B*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4197*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1175*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Van Buren Bl. to Harley Knox B*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4634*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1763*	pc/h/ln
S	*66.3*	mph
D = v_p / S	*26.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3493*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1304*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*2020 NP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6317*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2346*	pc/h/ln
S	*54.8*	mph
D = v_p / S	*42.8*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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ATTACHMENT E
OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS
HCS2010 BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5846*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1296*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5172*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1462*	pc/h/ln
S	*69.2*	mph
D = v_p / S	*21.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5536*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2066*	pc/h/ln
S	*61.3*	mph
D = v_p / S	*33.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5485*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1520*	pc/h/ln
S	*68.8*	mph
D = v_p / S	*22.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4726*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1336*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4724*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1335*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4881*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1353*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4358*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1618*	pc/h/ln
S	*68.0*	mph
D = v_p / S	*23.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6015*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1692*	pc/h/ln
S	*67.2*	mph
D = v_p / S	*25.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4977*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1393*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*20.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3979*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1492*	pc/h/ln
S	*69.0*	mph
D = v_p / S	*21.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5615*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1579*	pc/h/ln
S	*68.3*	mph
D = v_p / S	*23.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5880*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*8*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1329*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4350*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1235*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3362*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1224*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3138*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1205*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5366*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1219*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5488*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1566*	pc/h/ln
S	*68.4*	mph
D = v_p / S	*22.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5873*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1700*	pc/h/ln
S	*67.1*	mph
D = v_p / S	*25.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4635*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1053*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6499*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1476*	pc/h/ln
S	*69.1*	mph
D = v_p / S	*21.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6081*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1702*	pc/h/ln
S	*67.1*	mph
D = v_p / S	*25.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8250*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1856*	pc/h/ln
S	*65.0*	mph
D = v_p / S	*28.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5219*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*13*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2014*	pc/h/ln	Design LOS	
S	*62.3*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*32.3*	pc/mi/ln	S	mph
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6972*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1980*	pc/h/ln	Design LOS	
S	*62.9*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*31.5*	pc/mi/ln	S	mph
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6250*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1749*	pc/h/ln
S	*66.5*	mph
D = v_p / S	*26.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3859*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1482*	pc/h/ln	Design LOS	
S	*69.1*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*21.5*	pc/mi/ln	S	mph
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2858*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1072*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5475*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2043*	pc/h/ln
S	*61.8*	mph
D = v_p / S	*33.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5795*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1598*	pc/h/ln
S	*68.2*	mph
D = v_p / S	*23.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4019*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1493*	pc/h/ln
S	*69.0*	mph
D = v_p / S	*21.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5002*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1921*	pc/h/ln
S	*64.0*	mph
D = v_p / S	*30.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4785*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1794*	pc/h/ln
S	*65.9*	mph
D = v_p / S	*27.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4074*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1520*	pc/h/ln
S	*68.8*	mph
D = v_p / S	*22.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3979*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1114*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5212*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1459*	pc/h/ln
S	*69.2*	mph
D = v_p / S	*21.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5266*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1452*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*21.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3683*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1374*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*19.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4646*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1300*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4258*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1589*	pc/h/ln
S	*68.2*	mph
D = v_p / S	*23.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2815*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*796*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4507*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*837*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*12.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4252*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1202*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3389*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*766*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.9*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1809*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*511*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*7.3*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4223*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*950*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5452*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1239*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7596*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2126*	pc/h/ln
S	*60.1*	mph
D = v_p / S	*35.4*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6227*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1760*	pc/h/ln
S	*66.4*	mph
D = v_p / S	*26.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Central Av to Box Springs Rd*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6087*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1389*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*20.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7152*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1963*	pc/h/ln
S	*63.2*	mph
D = v_p / S	*31.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4642*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1724*	pc/h/ln	Design LOS	
S	*66.8*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*25.8*	pc/mi/ln	S	mph
LOS	*C*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5922*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2210*	pc/h/ln
S	*58.2*	mph
D = v_p / S	*38.0*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3785*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*864*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*12.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5388*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1508*	pc/h/ln
S	*68.9*	mph
D = v_p / S	*21.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5515*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2088*	pc/h/ln	Design LOS	
S	*60.9*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*34.3*	pc/mi/ln	S	mph
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Harley Knox to Ramona Exwy*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5158*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1944*	pc/h/ln
S	*63.6*	mph
D = v_p / S	*30.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6078*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2279*	pc/h/ln
S	*56.5*	mph
D = v_p / S	*40.3*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3683*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*829*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5085*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1423*	pc/h/ln
S	*69.4*	mph
D = v_p / S	*20.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5549*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2041*	pc/h/ln
S	*61.8*	mph
D = v_p / S	*33.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5451*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1503*	pc/h/ln
S	*68.9*	mph
D = v_p / S	*21.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4642*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1306*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4410*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1240*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4731*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1298*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4320*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1589*	pc/h/ln
S	*68.2*	mph
D = v_p / S	*23.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6095*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1706*	pc/h/ln
S	*67.0*	mph
D = v_p / S	*25.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5495*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1523*	pc/h/ln
S	*68.8*	mph
D = v_p / S	*22.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3309*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1235*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4584*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1277*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4939*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1111*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3518*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*994*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3293*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1199*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5185*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1944*	pc/h/ln
S	*63.6*	mph
D = v_p / S	*30.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6897*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1544*	pc/h/ln
S	*68.6*	mph
D = v_p / S	*22.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5061*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1410*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6174*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1728*	pc/h/ln
S	*66.8*	mph
D = v_p / S	*25.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5481*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1215*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Central Av to Box Springs Rd*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7952*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1755*	pc/h/ln
S	*66.4*	mph
D = v_p / S	*26.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7164*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1966*	pc/h/ln
S	*63.2*	mph
D = v_p / S	*31.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7976*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1786*	pc/h/ln
S	*66.0*	mph
D = v_p / S	*27.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6555*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2494*	pc/h/ln
S	*50.6*	mph
D = v_p / S	*49.3*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7019*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1965*	pc/h/ln
S	*63.2*	mph
D = v_p / S	*31.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7427*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*5*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*	
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*	

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2069*	pc/h/ln	Design LOS	
S	*61.2*	mph	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
D = v_p / S	*33.8*	pc/mi/ln	S	mph
LOS	*D*		D = v_p / S	pc/mi/ln
			Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Van Buren Bl. to Harley Knox B*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5337*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2030*	pc/h/ln
S	*62.0*	mph
D = v_p / S	*32.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4956*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1876*	pc/h/ln
S	*64.7*	mph
D = v_p / S	*29.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6844*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2566*	pc/h/ln
S	*48.4*	mph
D = v_p / S	*53.1*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6731*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1847*	pc/h/ln
S	*65.1*	mph
D = v_p / S	*28.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4435*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1663*	pc/h/ln
S	*67.5*	mph
D = v_p / S	*24.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5523*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2131*	pc/h/ln
S	*59.9*	mph
D = v_p / S	*35.5*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5329*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1989*	pc/h/ln
S	*62.8*	mph
D = v_p / S	*31.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4413*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1663*	pc/h/ln
S	*67.5*	mph
D = v_p / S	*24.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4620*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1306*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5456*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1542*	pc/h/ln
S	*68.6*	mph
D = v_p / S	*22.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5950*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1641*	pc/h/ln
S	*67.7*	mph
D = v_p / S	*24.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4219*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1597*	pc/h/ln
S	*68.2*	mph
D = v_p / S	*23.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4958*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1401*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4973*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1874*	pc/h/ln
S	*64.7*	mph
D = v_p / S	*29.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2552*	veh/h	Peak-Hour Factor, PHF	*0.92*	
AADT		veh/day	%Trucks and Buses, P_T	*12*	
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*	
Peak-Hr Direction Prop, D			General Terrain:	*Level*	
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*735*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.5*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4040*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*754*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.8*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4740*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1346*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
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LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3591*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*800*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
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LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3184*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*874*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*12.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
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LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4491*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1025*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
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LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5062*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1177*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7262*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2072*	pc/h/ln
S	*61.2*	mph
D = v_p / S	*33.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6760*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1938*	pc/h/ln
S	*63.7*	mph
D = v_p / S	*30.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7137*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*16*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.926*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1676*	pc/h/ln
S	*67.4*	mph
D = v_p / S	*24.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.p

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7985*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2213*	pc/h/ln
S	*58.1*	mph
D = v_p / S	*38.1*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5566*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2107*	pc/h/ln
S	*60.5*	mph
D = v_p / S	*34.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7413*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2793*	pc/h/ln
S	*40.6*	mph
D = v_p / S	*68.9*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*BMB*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*4/18/2016*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4357*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1009*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Cactus Av. to Van Buren Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4222*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1182*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Van Buren Bl. to Harley Knox B*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4659*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1772*	pc/h/ln
S	*66.2*	mph
D = v_p / S	*26.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Harley Knox to Ramona Exwy*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3496*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1305*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*BMB*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*4/18/2016*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*2020 WP*

Project Description *Indian Street Commerce Center (JN 09912)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6320*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2359*	pc/h/ln
S	*54.4*	mph
D = v_p / S	*43.3*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 10-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: Appendix B - Traffic Impact Analysis [Revision 5] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Indian Street Commerce Center

AIR QUALITY IMPACT ANALYSIS

CITY OF MORENO VALLEY

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LIST OF ABBREVIATED TERMS

(1)	Reference
µg/m3	Microgram per Cubic Meter
AADT	Annual Average Daily Trips
AQIA	Air Quality Impact Analysis
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
BACMs	Best Available Control Measures
BMPs	Best Management Practices
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DPM	Diesel Particulate Matter
EPA	Environmental Protection Agency
LST	Localized Significance Threshold
MMs	Mitigation Measures
NAAQS	National Ambient Air Quality Standards
NO2	Nitrogen Dioxide
NOx	Oxides of Nitrogen
Pb	Lead
PM10	Particulate Matter 10 microns in diameter or less
PM2.5	Particulate Matter 2.5 microns in diameter or less
PPM	Parts Per Million
Project	Indian Street Commerce Center
ROG	Reactive Organic Gases
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SIPs	State Implementation Plans
SRA	Source Receptor Area

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TAC	Toxic Air Contaminant
TIA	Traffic Impact Analysis
TOG	Total Organic Gases
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds

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EXECUTIVE SUMMARY

CONSTRUCTION-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project will exceed the numerical thresholds of significance established by the South Coast Air Quality Management District (SCAQMD) for emissions of Volatile Organic Compounds (VOCs) and Nitrogen Oxides (NO_x) prior to implementation of applicable mitigation measures (MMs).

The proposed mitigation measures MM AQ-1 through MM AQ-3 are recommended to reduce the severity of the impacts. After implementation of MM AQ-1 through MM AQ-3, construction activity emissions will not exceed the numerical thresholds established by the SCAQMD. Therefore, a less than significant impact would occur for Project-related construction-source emissions.

LOCALIZED IMPACTS

For localized emissions, the Project will not exceed the SCAQMD's localized significance threshold for any criteria pollutant (with implementation of applicable MMs). Therefore, a less than significant impact would occur with implementation of applicable MMs.

ODORS

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less-than-significant.

OPERATIONAL-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project would exceed the numerical thresholds of significance established by the SCAQMD for emissions of NO_x. No feasible mitigation measures exist that would reduce these emissions to levels that are less-than-significant. Thus a significant impact would occur even with implementation of the proposed mitigation measure MM AQ-4. Project operational-source NO_x emissions exceedances of applicable SCAQMD regional thresholds are therefore considered significant and unavoidable.

LOCALIZED IMPACTS

Project operational-source emissions would not result in or cause a significant localized air quality impact as discussed in the operational LSTs section of this report. The proposed Project would

not result in a significant CO "hotspot" as a result of Project related traffic during ongoing operations.

ODORS

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous refuse. Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances (1). Consistent with City requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations. Potential operational-source odor impacts are therefore considered less-than-significant.

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1 INTRODUCTION

This report presents the results of the air quality impact analysis (AQIA) prepared by Urban Crossroads, Inc., for the proposed Indian Street Commerce Center ("Project"). The purpose of this AQIA is to evaluate the potential impacts to air quality associated with construction and operation of the proposed Project, and recommend measures to mitigate impacts considered potentially significant in comparison to thresholds established by the South Coast Air Quality Management District (SCAQMD).

1.1 SITE LOCATION

The proposed Indian Street Commerce Center site is located at 17845 Indian Street in the City of Moreno Valley, as shown on Exhibit 1-A. Interstate 215 (I-215) Freeway is located approximately one mile west of the Project site. The March Air Reserve Base/Inland Port Airport (MARB/IPA) is located approximately one-half mile west of the Project site.

1.2 STUDY AREA

The Project site is currently vacant and is designated by the City of Moreno Valley General Plan Land Use Map, Figure 2-2, as Business Park/Light Industrial land use. (2) The properties adjacent to the Project site on all sides are also designated as Business Park/Light Industrial land use. Existing Open Space land use is located west of the Project site at the southern boundary of the MARB/IPA. The existing land uses are shown on Exhibit 1-B.

1.3 PROJECT DESCRIPTION

The Project is proposed to consist of approximately 446,350 square feet, of which 357,080 square feet would be allocated to high-cube warehouse/distribution center use and 89,270 square feet to manufacturing use within a single building. Supporting office uses would be also incorporated in the building design. The Project's site plan is illustrated on Exhibit 1-C. The Project is anticipated to have an Opening Year of 2018[1].

As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) will be powered by non-diesel fueled engines and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

The City of Moreno Valley's General Plan Land Use designation for the Project site is Business Park/Light Industrial (BP/LI), which allows for "manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities (2)." The land

[1] Notwithstanding, the Traffic Impact Analysis (TIA) prepared for the Project evaluates an Opening Year of 2020 since the City of Moreno Valley traffic study guidelines require the Opening Year to be a minimum of 5 years from baseline (2015) conditions. Using a 2018 Opening Year for purposes of the AQIA herein represents a conservative estimate of emissions compared to if a 2020 opening year consistent with the traffic study were utilized.

uses and development proposed by the Project are permitted/conditionally permitted under the Project site's current BP/LI Land Use designations. The Project is located within Specific Plan 208 (SP 208), Moreno Valley Industrial Area Plan (MVIAP) (formerly the Oleander Specific Plan. SP 208 land uses of the Project site are zoned Industrial. The development concepts and uses proposed by the Project are permitted or conditionally permitted under the site's current SP 208 Industrial zoning designation. As such, the Project's land uses and development are permitted/conditionally permitted under the City General Plan Land Use designations and under the SP 208's zoning designation. Therefore, no changes are proposed to these existing designations.

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EXHIBIT 1-A: LOCATION MAP

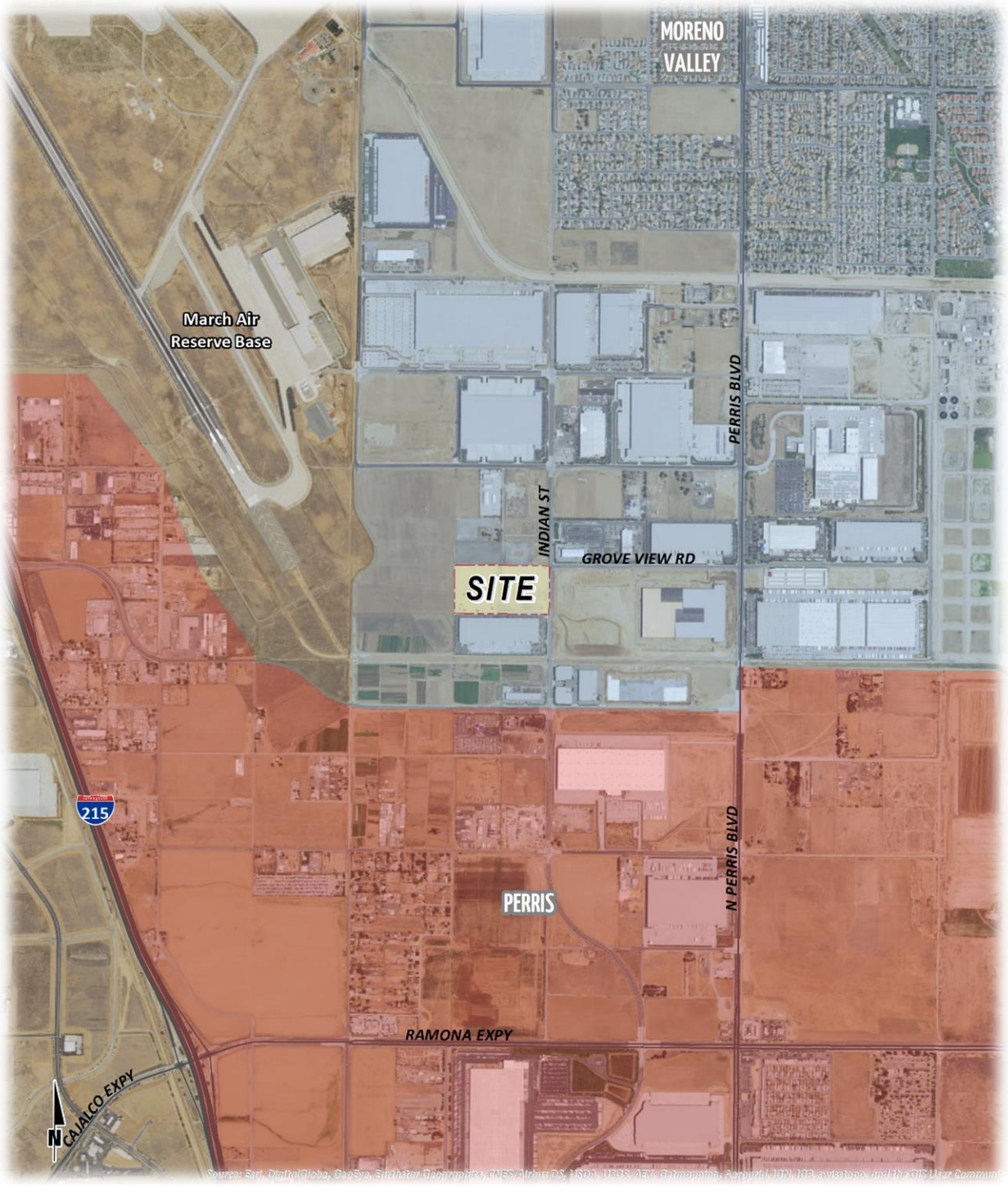

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EXHIBIT 1-B: EXISTING LAND USES



Source: Google Earth, Applied Planning.

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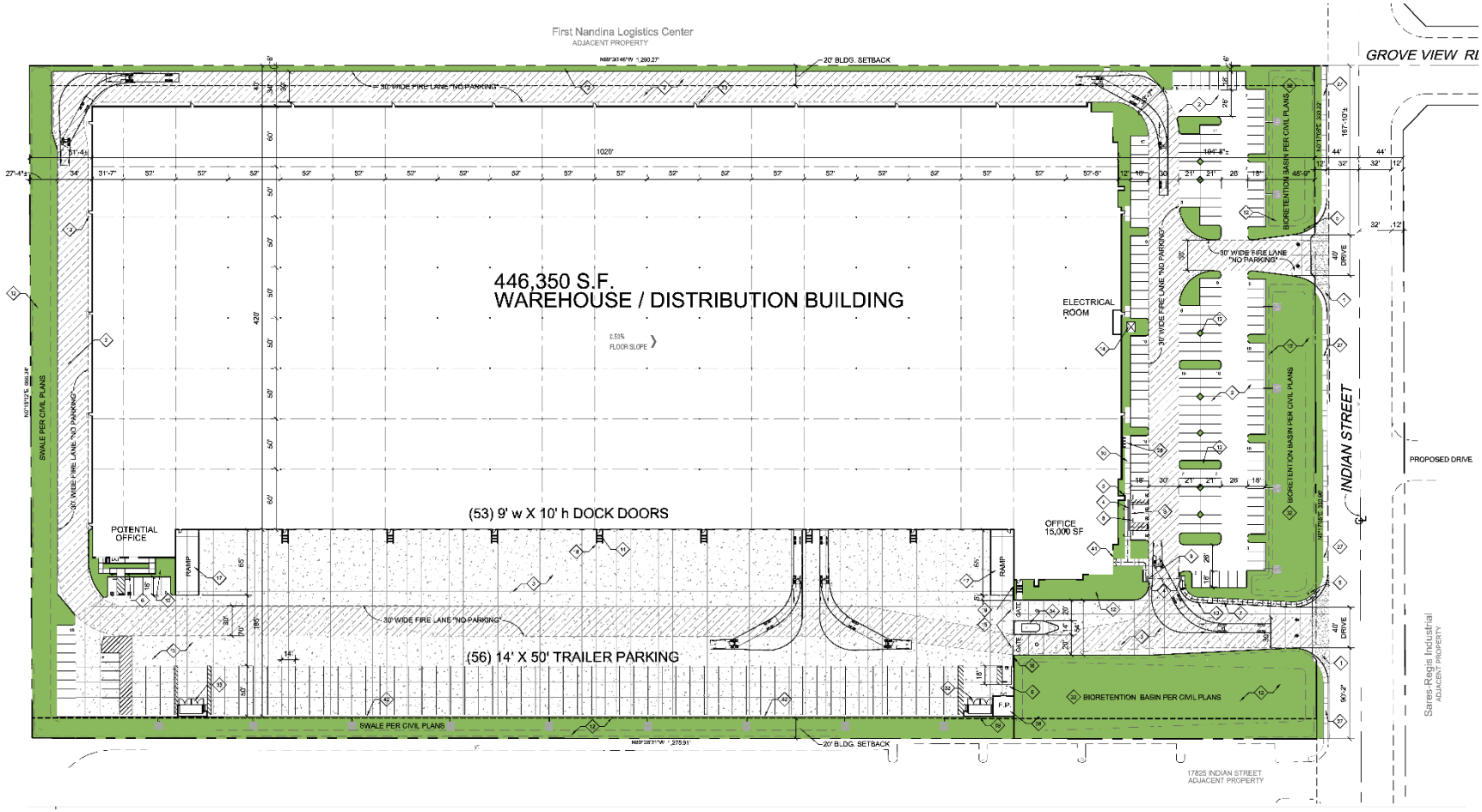
EXHIBIT 1-C: SITE PLAN



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1.4 PROJECT DESIGN FEATURES

Energy-saving and sustainable design features and operational programs would be incorporated into all facilities developed pursuant to the Indian Street Commerce Center. The Project in total would provide sustainable design features necessary to achieve a "Certified" rating under the United States Green Building Council's Leadership in Energy & Environmental Design (LEED) programs. The Project also incorporates and expresses the following design features and attributes promoting energy efficiency and sustainability. Because these features/attributes are integral to the Project, and/or are regulatory requirements, they are not considered to be mitigation measures.

- The Project design concept allow for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provide that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City.
- All on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines (e.g., electric or natural gas).
- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:
    - Sidewalks along the Project site's Indian Street frontage would be constructed as part of the Project, and would connect to existing and planned sidewalks to the north and south of the Project site. Facilitating pedestrian access encourages people to walk instead of drive. The Project would not impose barriers to pedestrian access and interconnectivity.
    - Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery truck trips.
- To reduce water demands and associated energy use, development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy)[2]. Development proposals within the Specific Plan Area would also be required to implement the following:
    - Landscaping palette emphasizing drought tolerant plants consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;
    - Use of water-efficient irrigation techniques consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;
    - U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads.

2 Reduction of 20% indoor water usage is consistent with the current CalGreen Code performance standards for residential and non-residential land uses. Per CalGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

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- The Project in total would surpass by a minimum of 5%, incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards).

1.5 Construction-Source Air Pollutant Emissions Mitigation Measures

1.5.1 Monitoring of and Compliance With Standard Regulatory Requirements/Best Available Control Measures (BACMs)

SCAQMD Rules that are currently applicable during construction activity for this Project include but are not limited to: Rule 1113 (Architectural Coatings) (3); Rule 431.2 (Low Sulfur Fuel) (4); Rule 403 (Fugitive Dust) (5); and Rule 1186 / 1186.1 (Street Sweepers) (6). In order to facilitate monitoring and compliance with SCAQMD Rule 403 (Fugitive Dust) and Rule 1113 (Architectural Coatings) applicable provisions of these Rules are restated at MM AQ-1

MM AQ-1

- The following measures shall be incorporated into Project plans and specifications as implementation of Rule 403.
- All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 mph per SCAQMD guidelines in order to limit fugitive dust emissions.
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project are watered, with complete coverage of disturbed areas, at least three (3) times daily during dry weather; preferably in the mid-morning, afternoon, and after work is done for the day.
- The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are reduced to 15 miles per hour or less
- Only "Low-Volatile Organic Compounds" paints (no more than 50 gram/liter of VOC) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used.

MM AQ-2

Plans, specifications, and contract documents shall note that a sign shall be posted on-site stating that construction workers shall not idle diesel engines in excess of five (5) minutes (7).

1.5.2 Other Measures

MM AQ-3

During site preparation and grading activity, all construction equipment (≥ 150 horsepower) shall be California Air Resources Board (CARB) Tier 3 Certified or better.

1.6 Operational-Source Air Pollutant Emissions Mitigation Measures

MM AQ-4

Measures listed below would provide for generalized reductions in Project area-source air pollutant emissions. Notwithstanding, these reductions cannot be definitively quantified; and in any case, such reductions as may be realized would not materially affect the analyses or

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conclusions presented herein. For the purposes of this analysis, unmitigated and mitigated area-source air pollutant emissions generated by the Project are considered substantively equal.

- Any gasoline-powered cargo-handling equipment shall be equipped with catalytic converters.
- Install signs stating that the idling of trucks shall not exceed three minutes.
- Provide preferential parking locations for EVs, CNG vehicles, and carpool/vanpool vehicles.

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2 AIR QUALITY SETTING

This section provides an overview of the existing air quality conditions in the Project area and region.

2.1 SOUTH COAST AIR BASIN

The Project site is located in the South Coast Air Basin (SCAB) within the jurisdiction of SCAQMD (8). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. As discussed above, the Project site is located within the South Coast Air Basin, a 6,745-square mile subregion of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The larger South Coast district boundary includes 10,743 square miles.

The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Los Angeles County portion of the Mojave Desert Air Basin is bound by the San Gabriel Mountains to the south and west, the Los Angeles / Kern County border to the north, and the Los Angeles / San Bernardino County border to the east. The Riverside County portion of the Salton Sea Air Basin is bound by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley.

2.2 REGIONAL CLIMATE

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality.

The annual average temperatures throughout the SCAB vary from the low to middle 60s (degrees Fahrenheit). Due to a decreased marine influence, the eastern portion of the SCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100°F.

Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide to sulfates is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

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More than 90 percent of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14 1/2 hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NOX and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

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2.3 WIND PATTERNS AND PROJECT LOCATION

The distinctive climate of the Project area and the SCAB is determined by its terrain and geographical location. The Basin is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter.

Wind patterns across the south coastal region are characterized by westerly and southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season.

2.4 EXISTING AIR QUALITY

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated and in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect, as well health effects of each pollutant regulated under these standards are shown in Table 2-1 (9) (10).

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards presented in Table 2-1. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O3, CO, SO2, NO2, PM10, and PM2.5 are not equaled or exceeded at any time in any consecutive three-year period; and the federal standards (other than O3, PM10, PM2.5, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The O3 standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

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TABLE 2-1: AMBIENT AIR QUALITY STANDARDS

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[10]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[10]	—	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page ...

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2.5 REGIONAL AIR QUALITY

The SCAQMD monitors levels of various criteria pollutants at 30 monitoring stations throughout the air district. In 2012, the federal and state ambient air quality standards (NAAQS and CAAQS) were exceeded on one or more days for ozone, PM10, and PM2.5 at most monitoring locations (11). No areas of the SCAB exceeded federal or state standards for NO2, SO2, CO, sulfates or lead. See Table 2-2 for attainment designations for the SCAB (12). Appendix 3.2 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the SCAB.

TABLE 2-2: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SOUTH COAST AIR BASIN (SCAB)

Criteria Pollutant	State Designation	Federal Designation
Ozone - 1hour standard	Nonattainment	No Standard
Ozone - 8 hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Attainment
Lead[3]	Attainment	Unclassified/Attainment

Source: State/Federal designations were taken from http://www.arb.ca.gov/desig/adm/adm.htm
Note: See Appendix 3.2 for a detailed map of State/National Area Designations within the South Coast Air Basin

2.6 LOCAL AIR QUALITY

Relative to the Project site, the nearest long-term air quality monitoring site for Ozone (O_3) and Particulate Matter ≤ 10 Microns (PM_{10}) is the South Coast Air Quality Management District Perris monitoring station (SRA 24), located approximately 4.8 miles south of the Project site (13). Data for Carbon Monoxide (CO), Nitrogen Dioxide (NO_2), and Ultra-Fine Particulates ($PM_{2.5}$) was obtained from the Metropolitan Riverside County 2 monitoring station (SRA 23) and Lake Elsinore monitoring station (SRA 25), located approximately 10.6 miles northwest and 13.50 miles southwest of the Project site, respectively. It should be noted that the Metropolitan Riverside County 2 and Lake Elsinore monitoring stations were utilized in lieu of the Perris monitoring station only where data was not available from the nearest monitoring site.

The most recent three (3) years of data available is shown on Table 2-3 and identifies the number of days ambient air quality standards were exceeded for the study area, which is was considered to be representative of the local air quality at the Project site (11) (14). Additionally, data for SO2

[3] The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.

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has been omitted as attainment is regularly met in the South Coast Air Basin and few monitoring stations measure SO2 concentrations.

TABLE 2-3: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2012-2015

POLLUTANT	STANDARD	YEAR		
		2013	2014	2015
Ozone (O_3)				
Maximum 1-Hour Concentration (ppm)		0.108	0.117	0.124
Maximum 8-Hour Concentration (ppm)		0.090	0.094	0.102
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	17	16	25
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	60	63	50
Number of Days Exceeding Federal 1-Hour Standard	> 0.12 ppm	0	0	0
Number of Days Exceeding Federal 8-Hour Standard	> 0.075 ppm	34	38	31
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	0	0	0
Carbon Monoxide (CO)				
Maximum 1-Hour Concentration (ppm)		--	2.0	--
Maximum 8-Hour Concentration (ppm)		1.6	1.4	--
Number of Days Exceeding State 1-Hour Standard	> 20 ppm	0	0	--
Number of Days Exceeding Federal / State 8-Hour Standard	> 9.0 ppm	0	0	--
Number of Days Exceeding Federal 1-Hour Standard	> 35 ppm	0	0	--
Nitrogen Dioxide (NO_2)*				
Maximum 1-Hour Concentration (ppm)		0.058	0.056	0.047
Annual Arithmetic Mean Concentration (ppm)		0.016	0.016	0.009
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0
Particulate Matter ≤ 10 Microns (PM_{10})				
Maximum 24-Hour Concentration (µg/m^3)		70	87	188
Annual Arithmetic Mean (µg/m^3)		33.6	35.1	33.1
Number of Samples		57	60	--
Number of Samples Exceeding State Standard	> 50 µg/m^3	7	6	4
Number of Samples Exceeding Federal Standard	> 150 µg/m^3	0	0	1
Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$)*				
Maximum 24-Hour Concentration (µg/m^3)		53.7	30.9	42.2
Annual Arithmetic Mean (µg/m^3)		11.2	10.9	--
Number of Samples Exceeding Federal 24-Hour Standard	> 35 µg/m^3	0	0	--

-- = data not available from SCAQMD or ARB; *Data from the Riverside County 2 monitoring station is only available up to year 2014. As such, data from the Lake Elsinore monitoring station is used for the year 2015.

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Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and effects are identified below:

- Carbon Monoxide (CO): Is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.
- Sulfur Dioxide (SO2): Is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO2 oxidizes in the atmosphere, it forms sulfates (SO4). Collectively, these pollutants are referred to as sulfur oxides (SOX).
- Nitrogen Oxides (Oxides of Nitrogen, or NOx): Nitrogen oxides (NOx) consist of nitric oxide (NO), nitrogen dioxide (NO2) and nitrous oxide (N2O) and are formed when nitrogen (N2) combines with oxygen (O2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO2 is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO2 is the most abundant in the atmosphere. As ambient concentrations of NO2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO2 than those indicated by regional monitors.
- Ozone (O3): Is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NOX), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- PM10 (Particulate Matter less than 10 microns): A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. PM10 also causes visibility reduction and is a criteria air pollutant.
- PM2.5 (Particulate Matter less than 2.5 microns): A similar air pollutant consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO2 release from power plants and industrial facilities and nitrates that are formed from NOX release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. PM2.5 is a criteria air pollutant.
- Volatile Organic Compounds (VOC): Volatile organic compounds are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have

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different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include: carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O3, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG (see below) interchangeably.

- Reactive Organic Gases (ROG): Similar to VOC, Reactive Organic Gases (ROG) are also precursors in forming ozone and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O3, which is a criteria pollutant. The SCAQMD uses the terms ROG and VOC (see previous) interchangeably.
- Lead (Pb): Lead is a heavy metal that is highly persistent in the environment. In the past, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, there have been no violations at any of the SCAQMD's regular air monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters. It should be noted that the Project is not anticipated to generate a quantifiable amount of lead emissions. Lead is a criteria air pollutant.

Health Effects of Air Pollutants

Ozone

Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated ozone levels are associated with increased school absences. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in communities with high ozone levels.

Ozone exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

Carbon Monoxide

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen supply to the heart. Inhaled CO

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has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (oxygen deficiency) as seen at high altitudes.

Reduction in birth weight and impaired neurobehavioral development have been observed in animals chronically exposed to CO, resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels; these include pre-term births and heart abnormalities.

Particulate Matter

A consistent correlation between elevated ambient fine particulate matter (PM10 and PM2.5) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer.

Daily fluctuations in PM2.5 concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long term exposure to particulate matter.

The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM10 and PM2.5.

Nitrogen Dioxide

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

In animals, exposure to levels of NO2 considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of ozone and NO2.

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Sulfur Dioxide

A few minutes of exposure to low levels of SO2 can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO2.

Animal studies suggest that despite SO2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO2 levels. In these studies, efforts to separate the effects of SO2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.

Lead

Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure.

Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.

Odors

The science of odor as a health concern is still new. Merely identifying the hundreds of VOCs that cause odors poses a big challenge. Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

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2.7 REGULATORY BACKGROUND

2.7.1 FEDERAL REGULATIONS

The U.S. EPA is responsible for setting and enforcing the NAAQS for O3, CO, NOx, SO2, PM10, and lead (9). The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955, and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (15). The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O3, NO2, SO2, PM10, CO, PM2.5, and lead. The NAAQS were amended in July 1997 to include an additional standard for O3 and to adopt a NAAQS for PM2.5. Table 3-1 (previously presented) provides the NAAQS within the basin.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and nitrogen oxides (NOx). NOx is a collective term that includes all forms of nitrogen oxides (NO, NO2, NO3) which are emitted as byproducts of the combustion process.

2.7.2 CALIFORNIA REGULATIONS

The CARB, which became part of the California EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (10) (9).

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Local air quality management districts, such as the SCAQMD, regulate air emissions from stationary sources such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g. motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a five percent or more annual reduction in emissions or 15 percent or more in a period of three years for ROGs, NOx, CO and PM10. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than five percent per year under certain circumstances.

2.7.3 Air Quality Management Planning

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards (16). AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided in Section 3.8.

2.8 Regional Air Quality Improvement

The Project is within the jurisdiction of the SCAQMD. In 1976, California adopted the Lewis Air Quality Management Act which created SCAQMD from a voluntary association of air pollution control districts in Los Angeles, Orange, Riverside, and San Bernardino counties. The geographic area of which SCAQMD consists is known as the Basin. SCAQMD develops comprehensive plans and regulatory programs for the region to attain federal standards by dates specified in federal law. The agency is also responsible for meeting state standards by the earliest date achievable, using reasonably available control measures.

SCAQMD rule development through the 1970s and 1980s resulted in dramatic improvement in Basin air quality. Nearly all control programs developed through the early 1990s relied on (i) the development and application of cleaner technology; (ii) add-on emission controls, and (iii) uniform CEQA review throughout the Basin. Industrial emission sources have been significantly reduced by this approach and vehicular emissions have been reduced by technologies implemented at the state level by CARB.

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As discussed above, the SCAQMD is the lead agency charged with regulating air quality emission reductions for the entire Basin. SCAQMD created AQMPs which represent a regional blueprint for achieving healthful air on behalf of the 16 million residents of the South Coast Basin. The remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its Air Quality Management Plans (AQMPs) and by utilizing uniform CEQA review throughout the Basin.

The 2012 AQMP states, " the remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs," (17). Ozone, NOx, VOC, and CO have been decreasing in the Basin since 1975 and are projected to continue to decrease through 2020 (18). These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled in the Basin continue to increase, NOx and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NOx emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. Ozone contour maps show that the number of days exceeding the national 8-hour standard has decreased between 1997 and 2007. In the 2007 period, there was an overall decrease in exceedance days compared with the 1997 period. The overall trends of PM10 and PM2.5 in the air (not emissions) show an overall improvement since 1975. Direct emissions of PM10 have remained somewhat constant in the Basin and direct emissions of PM2.5 have decreased slightly since 1975. Area wide sources (fugitive dust from roads, dust from construction and demolition, and other sources) contribute the greatest amount of direct particulate matter emissions.

Ozone levels in the SCAB have decreased substantially over the last 30 years as shown in Table 2-4 (19). Today, the maximum measured concentrations are approximately one-third of concentrations within the late 70's.

As with other pollutants, the most recent PM10 statistics also show overall improvement as illustrated in Table 2-5. During the period for which data are available, the 24-hour national annual average decreased by almost 45 percent, from 103.7 µg/m³ in 1989 to 57.6 µg/m³ in 2014. Although the values in the late 1990's show some variability, this is probably due to meteorology rather than a change in emissions. Despite the overall decrease, ambient concentrations still exceed the State annual and 24-hour PM10 standards. Similar to the ambient concentrations, the calculated number of days above the 24-hour PM10 standards has also shown an overall drop. During 1995, there were 25 calculated days above the national standard. By 2014, there was one calculated national standard exceedance days (20).

Table 2-6 shows the most recent 24-hour average $PM_{2.5}$ concentrations (national) in the SCAB from 1999 through 2014. Overall, the annual average concentrations have decreased by almost 52 percent. The calculated number of days above the national standard also decreased, from about 88 days in 1999 to about 9 days in 2014. The SCAB is currently designated as nonattainment for the State and national $PM_{2.5}$ standards. Measures adopted as part of the upcoming $PM_{2.5}$ SIP, as well as programs to reduce ozone and diesel PM will help in reducing public exposure to $PM_{2.5}$ in this region.

The most recent carbon dioxide concentrations in the SCAB 1986 are shown in Table 2-7 (21). Carbon monoxide concentrations in the SCAB have decreased markedly — a total decrease of more about 80 percent in the peak 8-hour concentration since 1986. The number of exceedance days has also declined. The entire SCAB is now designated as attainment for both the state and national CO standards. Ongoing reductions from motor vehicle control programs should continue the downward trend in ambient CO concentrations.

TABLE 2-4: SOUTH COAST AIR BASIN OZONE TREND

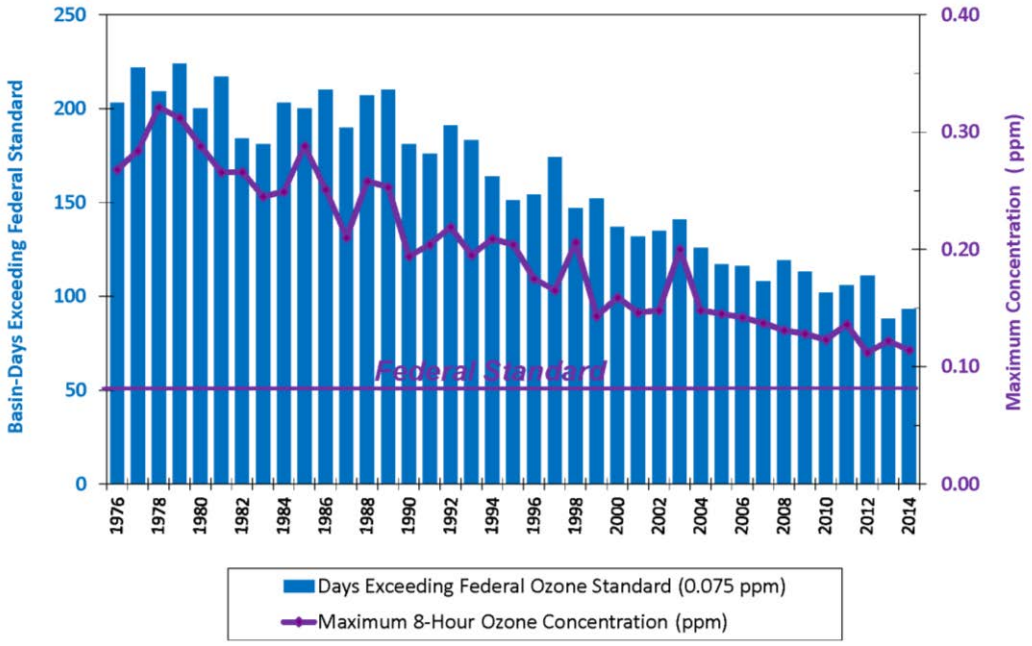

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TABLE 2-5: SOUTH COAST AIR BASIN PM_{10} TREND

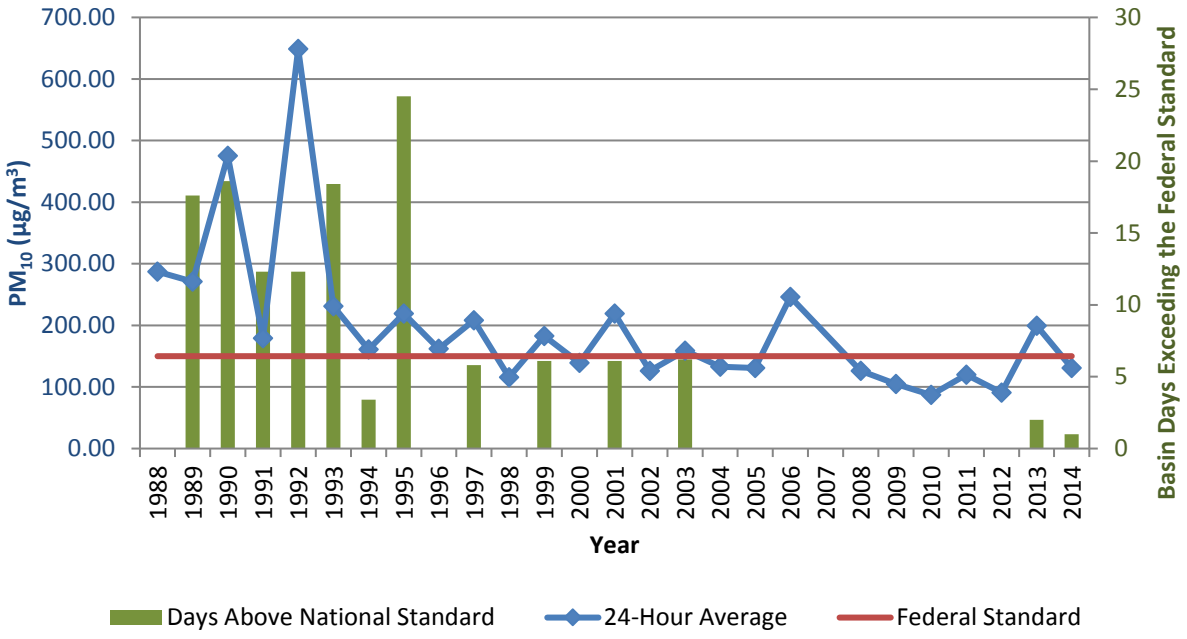

TABLE 2-6: SOUTH COAST AIR BASIN $PM_{2.5}$ TREND

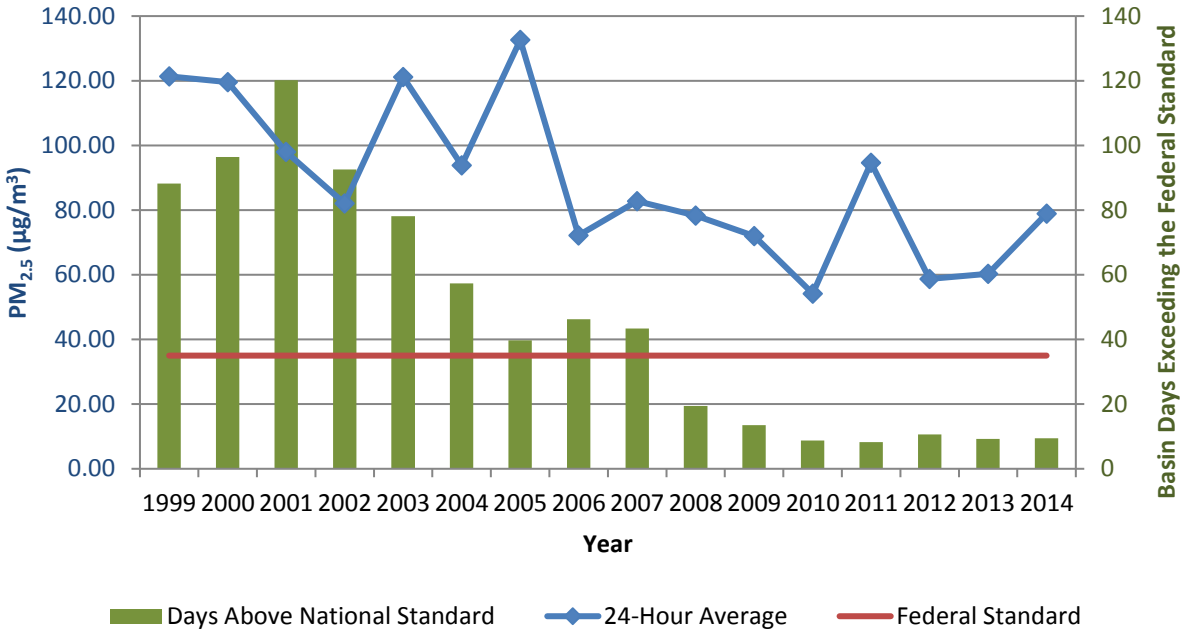

TABLE 2-7: SOUTH COAST AIR BASIN CARBON MONOXIDE TREND

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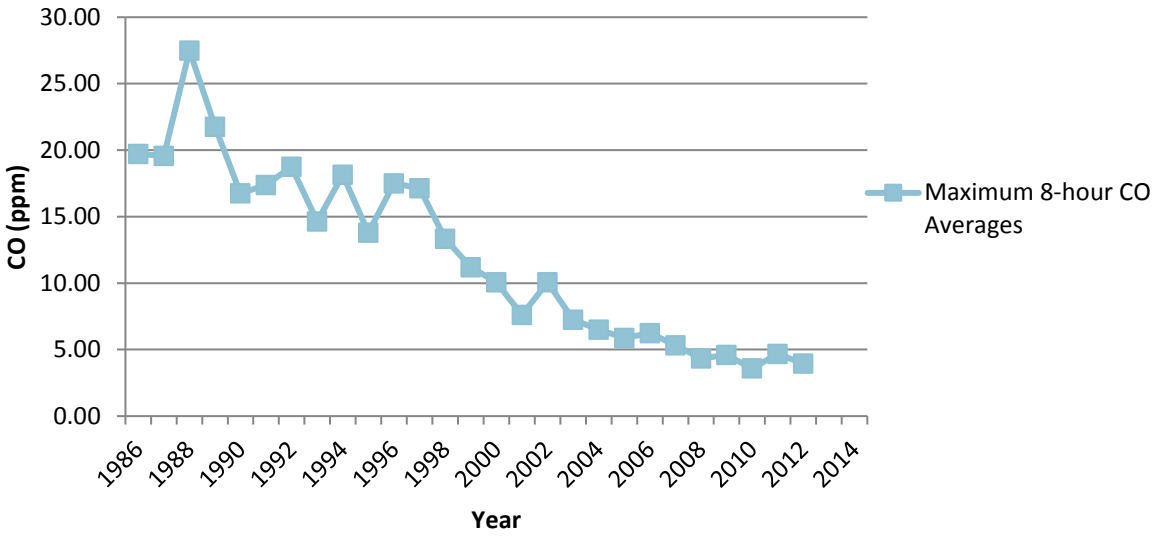

Part of the control process of the SCAQMD's duty to greatly improve the air quality in the Basin is the uniform CEQA review procedures required by SCAQMD's CEQA Handbook (22). The single threshold of significance used to assess Project direct and cumulative impacts has in fact "worked" as evidenced by the track record of the air quality in the Basin dramatically improving over the course of the past decades. As stated by the SCAQMD the District's thresholds of significance are based on factual and scientific data and are therefore appropriate thresholds of significance to use for this Project.

The most recent NO_2 data for the SCAB is shown in Table 2-8 (21). Over the last 50 years, NO_2 values have decreased significantly; the peak 1-hour average for 2013 was almost 74 percent lower than what it was during 1963. The SCAB attained the State 1-hour NO_2 standard in 1994, bringing the entire State into attainment. A new state annual average standard of 0.030 parts per million was adopted by the ARB in February 2007 (23). The new standard is just barely exceeded in the South Coast. NO_2 is formed from NO_x emissions, which also contribute to ozone. As a result, the majority of the future emission control measures will be implemented as part of the overall ozone control strategy. Many of these control measures will target mobile sources, which account for more than three-quarters of California's NO_x emissions. These measures are expected to bring the South Coast into attainment of the State annual average standard.

The American Lung Association website includes data collected from State air quality monitors that are used to compile an annual State of the Air report. These reports have been published over the last 13 years. The latest State of the Air Report compiled for the Basin was in 2010 (24). As noted in this report, air quality in the Basin has significantly improved in terms of both pollution levels and high pollution days over the past three decades. The area's average number of high ozone days dropped from 189.5 day per year in the initial 2000 State of the Air report (1996–1998) to 141.8 in the 2006–2008 report. The region has seen dramatic reduction in particle pollution since the initial State of the Air report (24).

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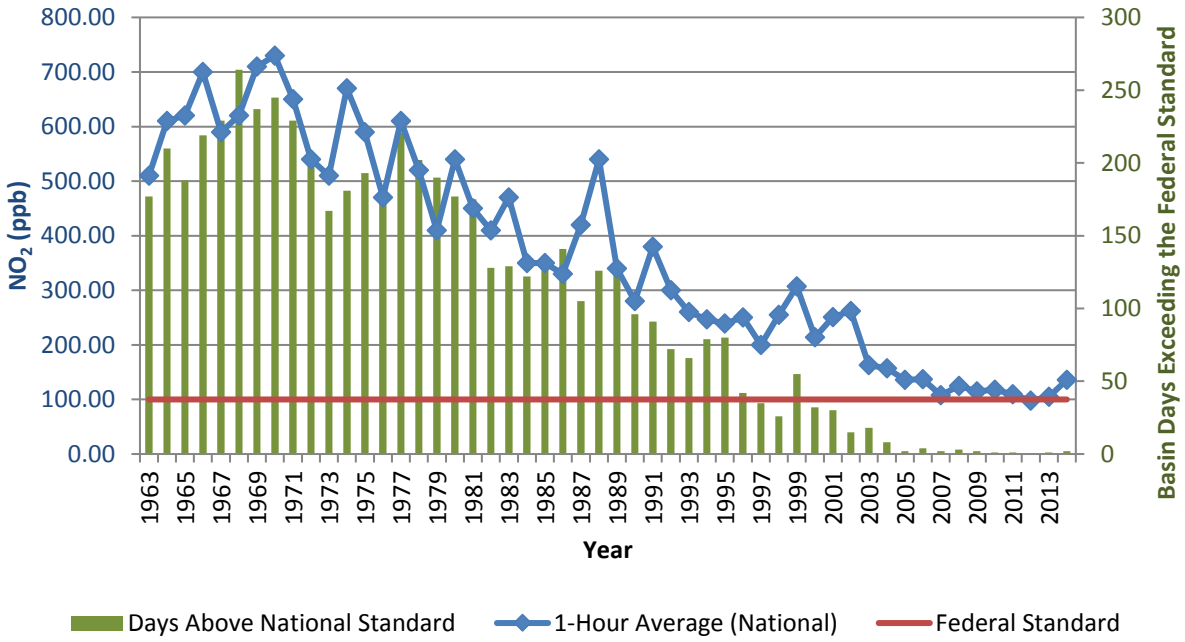
TABLE 2-8: SOUTH COAST AIR BASIN NITROGEN DIOXIDE TREND



TOXIC AIR CONTAMINANTS (TACS) TRENDS

In 1984, as a result of public concern for exposure to airborne carcinogens, the CARB adopted regulations to reduce the amount of air toxic contaminant emissions resulting from mobile and area sources, such as cars, trucks, stationary products, and consumer products. According to the *Ambient and Emission Trends of Toxic Air Contaminants in California* journal article which was prepared for CARB, results show that between 1990-2012, ambient concentration and emission trends for the seven TACs responsible for most of the known cancer risk associated with airborne exposure in California have declined significantly (25). The seven TACs studied shown below include those that are derived from mobile sources: diesel particulate matter (DPM), benzene, and 1,3-butadiene; those that are derived from stationary sources: perchloroethylene and hexavalent chromium; and those derived from photochemical reactions of emitted VOCs: formaldehyde and acetaldehyde[4]. TACs data was gathered at monitoring sites from both the Bay Area and South Coast Air Basins, as shown on Exhibit 2-A; Several of the sites in the SCAB include Reseda, Compton, Rubidoux, Burbank, and Fontana. The decline in ambient concentration and emission trends of these TACs are a result of various regulations CARB has implemented to address cancer risk.

[4] It should be noted that ambient DPM concentrations are not measured directly. Rather, a surrogate method using the coefficient of haze (COH) and elemental carbon (EC) is used to estimate DPM concentrations.

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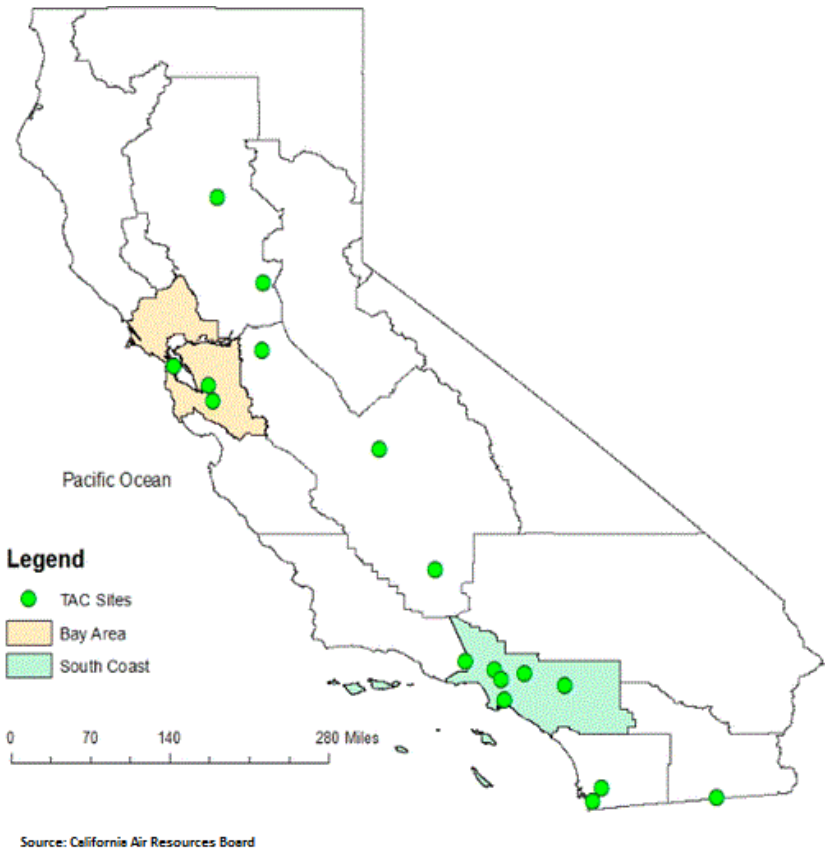
EXHIBIT 2-A: CALIFORNIA TOXIC AIR CONTAMINANT SITES



Mobile Source TACs

The CARB introduced two programs that aimed at reducing mobile emissions for light and medium duty vehicles through vehicle emissions controls and cleaner fuel. Since 1996, light-duty vehicles sold in California are equipped with California's second-generation On-Board Diagnostic (OBD-II) system as a result of about half of total car emissions stemming from emissions control device malfunctions. CARB's phase II Reformulated Gasoline (RFG-2) regulation, adopted in 1996, also led to a reduction of mobile source emissions. Through such regulations, benzene levels declined 88% from 1990-2012. 1,3-Butadiene concentrations also declined 85% from 1990-2012 as a result of the motor vehicle regulations (25).

In 2000, CARB's Diesel Risk Reduction Plan (DRRP) recommended the replacement and retrofit of diesel-fueled engines and the use of ultra-low-sulfur (<15ppm) diesel fuel. As a result of these measures, DPM concentrations have declined 68%, even though the state's population increased 31% and the amount of diesel vehicles miles traveled increased 81%, as shown on Exhibit 2-B. With the implementation of these diesel-related control regulations, ARB expects a DPM decline of 71% for 2000-2020.

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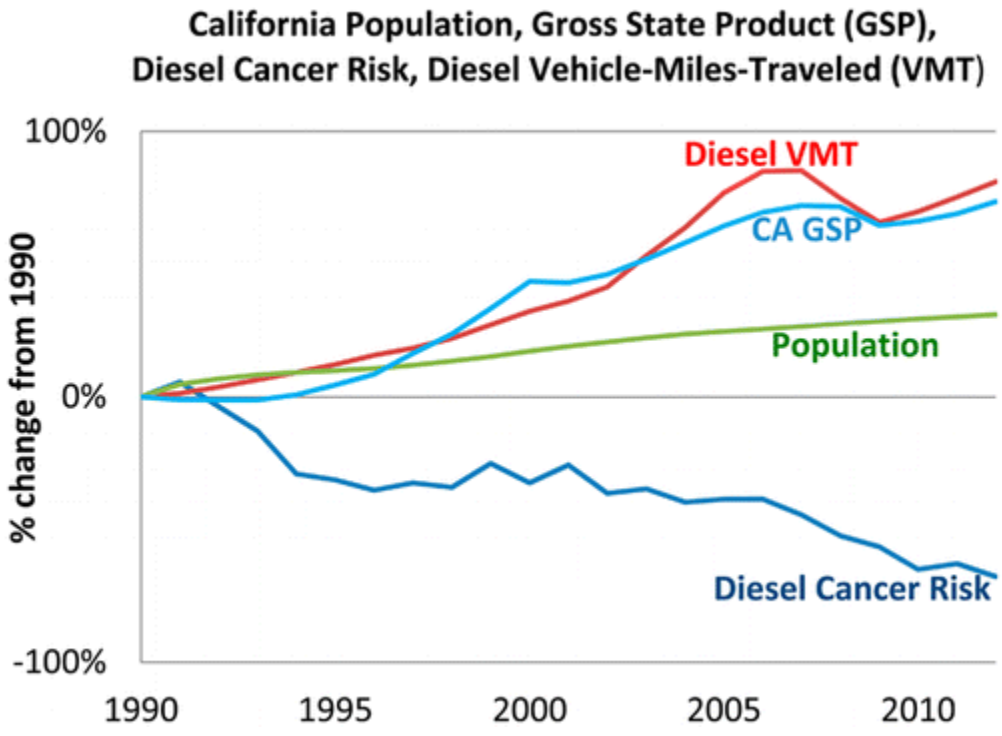
EXHIBIT 2-B: DIESEL PARTICULATE MATTER AND DIESEL VEHICLE MILES TREND



Source: California Air Resources Board

Stationary Source TACs

Various regulations led to a decrease in perchloroethylene and hexavalent chromium, with a 92% and 86% decline, respectively. By 1993, several local air districts required dry cleaning businesses to use a carbon absorber and refrigerated condenser, as well as, dry-to-dry machines and closed-looped machines instead of vented transfer machines. Starting in 2003, California provided financial incentives for dry cleaners to use other solvents and soon after, the CARB banned the use of perchloroethylene in automotive products, aerosol coatings, and most consumer products. In 2007, CARB's dry cleaning regulation was amended to require phase-out of perchloroethylene machines by 2023, which would further reduce emissions to minimal levels (25).

Hexavalent chromium emissions began to decline in 1988 with the ARB-regulated regulations contributing to more than 97% emission reduction within four years. The various regulations include prohibiting the use of hexavalent chromium in cooling towers (1989), in motor vehicle and mobile equipment coatings (2001), and in thermal spraying operations (2005). By 2005, hexavalent chromium emissions were 99.97% less than in 1987, far exceeding expectations. In 2006, hexavalent chromium emissions were further reduced with the 2006 ARB regulation requiring add-on air pollution control devices and chemical fume suppressants.

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Secondary TACs

Between 1996-2012, ambient concentrations of formaldehyde and acetaldehyde declined 22% and 21%, respectively. The decline in these TACs are attributed from increasingly stringent motor vehicle exhaust emission standards, vehicle fleet turnover, fuel reformulation, and the switch from MTBE (formaldehyde precursor) to ethanol in gasoline (25).

As previously discussed, ambient and emissions levels of TACs have reduced significantly from 1990-2012. The overall declining trend in TACs is expected to continue in California from implementation of toxic air controls.

DIESEL REGULATIONS

The CARB and the Ports of Los Angeles and Long Beach have adopted several iterations of regulations for diesel trucks that are aimed at reducing diesel particulate matter (DPM). More specifically, the CARB Drayage Truck Regulation (26), the CARB statewide On-road Truck and Bus Regulation (27), and the Ports of Los Angeles and Long Beach "Clean Truck Program" (CTP) require accelerated implementation of "clean trucks" into the statewide truck fleet (28). In other words, older more polluting trucks will be replaced with newer, cleaner trucks as a function of these regulatory requirements.

Moreover, the average statewide DPM emissions for Heavy Duty Trucks (HHDT), in terms of grams of DPM generated per mile traveled, will dramatically be reduced due to the aforementioned regulatory requirements.

Diesel emissions identified in this analysis would therefore overstate future DPM emissions since not all the regulatory requirements are reflected in the modeling.

CANCER RISK TRENDS

Based on information available from CARB, overall cancer risk throughout the basin has had a declining trend since 1990. In 1998, following an exhaustive 10-year scientific assessment process, the State of California Air Resources Board (ARB) identified particulate matter from diesel-fueled engines as a toxic air contaminant. The SCAQMD initiated a comprehensive urban toxic air pollution study, called MATES-II (for Multiple Air Toxics Exposure Study). Diesel particulate matter (DPM) accounts for more than 70 percent of the cancer risk.

In 2008 the SCAQMD prepared an update to the MATES-II study, referred to as MATES-III. MATES-III estimates the average excess cancer risk level from exposure to TACs is an approximately 17% decrease in comparison to the MATES-II study.

Nonetheless, the SCAQMD's most recent in-depth analysis of the toxic air contaminants and their resulting health risks for all of Southern California was from the *Multiple Air Toxics Exposure Study in the South Coast Air Basin, MATES IV,"* which shows that cancer risk has decreased more than 55% between MATES III (2005) and MATES IV (2012) (25).

MATES-IV study represents the baseline health risk for a cumulative analysis. MATES-IV calculated cancer risks based on monitoring data collected at ten fixed sites within the South

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Coast Air Basin (SCAB). None of the fixed monitoring sites are within the local area of the Project site. However, MATES-IV has extrapolated the excess cancer risk levels throughout the basin by modeling the specific grids. MATES-IV modeling predicted an excess cancer risk of 522.63 in one million for the Project area. DPM is included in this cancer risk along with all other TAC sources. DPM accounts for 68% of the total risk shown in MATES-IV. Cumulative Project generated TACs are limited to DPM.

2.9 EXISTING PROJECT SITE AIR QUALITY CONDITIONS

The Project site is currently vacant and as such, existing air quality conditions at the Project site would generally reflect ambient monitored conditions previously presented previously at Table 2-3.

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3 PROJECT AIR QUALITY IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will violate an air quality standard or contribute to an existing or projected air quality violation. Additionally, the Project has been evaluated to determine if it will result in a cumulatively considerable net increase of a criteria pollutant for which the SCAB is non-attainment under an applicable federal or state ambient air quality standard. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The SCAQMD has developed regional and localized significance thresholds for regulated pollutants, as summarized at Table 3-1 (29). The SCAQMD's CEQA Air Quality Significance Thresholds (March 2015) indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

TABLE 3-1: MAXIMUM DAILY EMISSIONS THRESHOLDS[A]

Pollutant	Construction	Operations
Regional Thresholds		
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
Sox	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Localized Thresholds		
CO (1-Hour)	20.0 ppm	20.0 ppm
CO (8-Hour)	9.0 ppm	9.0 ppm
NO2	0.18 ppm	0.18 ppm
PM10	10.4 µg/m3	2.5 µg/m3
PM2.5	10.4 µg/m3	2.5 µg/m3

[A]: Based on SCAQMD Air Quality Significance Thresholds, March 2015

3.3 CALIFORNIA EMISSIONS ESTIMATOR MODEL™ EMPLOYED TO ESTIMATE AQ EMISSIONS

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

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On October 2, 2013, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2013.2.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (NO_x, VOC, PM_{10}, $PM_{2.5}$, SO_x, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (30). Accordingly, the latest version of CalEEMod™ has been used for this Project to determine construction and operational air quality emissions. Output from the model runs for both construction and operational activity are provided in Appendix 3.1.

3.4 CONSTRUCTION EMISSIONS

Construction activities associated with the Project will result in emissions of CO, VOCs, NOx, SOx, PM10, and PM2.5. Construction related emissions are expected from the following construction activities:

- Site Preparation
- Grading
- Building Construction
- Architectural Coating
- Paving
- Construction Workers Commuting

Construction is expected to commence in January 2017 and will last through August 2018. The construction schedule utilized in the analysis, shown in Table 3-1, represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.[5] The duration of construction activity was estimated based on past project experience and a 2018 opening year. A detailed summary of construction, shown in Table 3-2, was estimated based on past project experience and a 2018 opening year. The site specific construction fleet may vary due to specific project needs at the time of construction. The duration of construction activity and associated equipment both represent a reasonable approximation of the expected construction fleet as required per CEQA guidelines. Please refer to specific detailed modeling inputs/outputs contained in Appendix 3.1 of this analysis.

Dust is typically a major concern during rough grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions". Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). It is our understanding the site is currently vacant, therefore, no demolition is required.

[5] As shown in the California Emissions Estimator Model (CalEEMod) User's Guide Version 2013.2, Table 3.4 "OFFROAD Equipment Emission Factors" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

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The CalEEMod model was utilized to calculate fugitive dust emissions resulting from this phase of activity. The Project site will require 3,000 cubic yards of soil import in order to balance.

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction materials delivered to the Project site) were estimated based on information from the applicant and the CalEEMod model.

OFF-SITE UTILITY AND INFRASTRUCTURE IMPROVEMENTS

Construction emissions associated with off-site utility and infrastructure improvements may occur, however at this time, a specific schedule of off-site utility and infrastructure improvements is unknown. However impacts associated with these expected activities are not expected to exceed the emissions identified for Project-related construction activities. As such, no impacts beyond what has already been identified in this report are expected to occur.

TABLE 3-2: CONSTRUCTION DURATION

Phase Name	Start Date	End Date	Days
Site Preparation	01/28/2017	02/10/2017	10
Grading	02/11/2017	03/24/2017	30
Building Construction	03/25/2017	05/18/2018	300
Paving	05/19/2018	06/15/2018	20
Architectural Coating	06/16/2018	08/10/2018	40

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TABLE 3-3: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Activity	Equipment	Number	Hours Per Day
Site Preparation	Water Trucks	2	8
	Rubber Tired Dozers	4	8
	Crawler Tractor	2	8
	Excavators	4	8
Grading	Water Trucks	2	8
	Scrapers	4	8
	Graders	4	8
	Rubber Tired Dozers	2	8
	Crawler Tractors	2	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	4	8
	Aerial Lifts	4	8

3.4.1 CONSTRUCTION EMISSIONS SUMMARY

Impacts Without Mitigation

Impacts without mitigation assume compliance with applicable SCAQMD Rules. The SCAQMD Rules that are currently applicable during construction activity for this Project include but are not limited to: Rule 1113 (Architectural Coatings) (3); Rule 431.2 (Low Sulfur Fuel) (4); Rule 403 (Fugitive Dust) (31); and Rule 1186 / 1186.1 (Street Sweepers) (6). Notwithstanding, credit for Rule 1113 and Rule 403 have not been taken.

The estimated maximum daily construction emissions without mitigation are summarized on Table 3-4. Detailed construction model outputs are presented in Appendix 3.1. Under the assumed scenarios, emissions resulting from the Project construction will exceed criteria pollutant thresholds established by the SCAQMD for emissions of VOCs and NOx (before mitigation).

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TABLE 3-4: MAXIMUM DAILY PEAK CONSTRUCTION EMISSIONS SUMMARY (WITHOUT MITIGATION)

Year	Emissions (pounds per day)					
	VOC	NOx	CO	SOx	PM10	PM2.5
2017	14.48	166.43	95.94	0.15	30.05	17.65
2018	76.44	33.54	41.61	0.08	5.15	2.55
Maximum Daily Emissions	**76.44**	**166.43**	**95.94**	**0.15**	**30.05**	**17.65**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

The maximum construction emissions for VOCs are from Architectural Coatings activities. The maximum construction emissions for NOx are from Grading activities.

Impacts With Mitigation

The estimated maximum daily construction emissions with mitigation are summarized in Table 3-5. Detailed construction model outputs are presented in Appendix 3.1. Mitigation measures MM AQ-1 through MM AQ-4 are recommended to reduce the severity of the impact. After implementation of the recommended mitigation measures, construction activity emissions will not exceed the numerical thresholds established by the SCAQMD. Therefore, a less than significant impact would occur for Project-related construction-source emissions.

TABLE 3-5: MAXIMUM DAILY PEAK CONSTRUCTION EMISSIONS SUMMARY (WITH MITIGATION)

Year	Emissions (pounds per day)					
	VOC	NOx	CO	SOx	PM10	PM2.5
2017	5.08	66.91	81.21	0.15	11.84	6.99
2018	16.83	33.54	41.61	0.09	5.15	2.55
Maximum Daily Emissions	**16.83**	**66.91**	**81.21**	**0.15**	**11.84**	**6.99**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

3.5 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of VOC, NOX, CO, SOX, PM10, and PM2.5. Operational emissions would be expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- On-Site Equipment Emissions

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3.5.1 AREA SOURCE EMISSIONS

Architectural Coatings

Over a period of time the buildings that are part of this Project will be subject to emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of Project maintenance. The emissions associated with architectural coatings were calculated using the CalEEMod model.

Consumer Products

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within the CalEEMod model.

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

3.5.2 ENERGY SOURCE EMISSIONS

Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity is generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using the CalEEMod model.

3.5.3 MOBILE SOURCE EMISSIONS

Vehicles

Project-related operational air quality impacts derive predominantly from mobile sources. In this regard, approximately 92 percent (by weight) of all Project operational-source emissions would be generated by mobile sources (vehicles). Neither the Project Applicant nor the City has any regulatory control over these tail pipe emissions. Rather, vehicle tail pipe source emissions are regulated by CARB and USEPA. As summarized previously herein, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve.

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Under the Truck and Bus Regulation, adopted by CARB in 2008, all diesel truck fleets operating in California are required to adhere to an aggressive schedule for upgrading and replacing heavy-duty truck engines. Pursuant to such regulation, older, heavier trucks, i.e., those with pre-2000 year engines and a gross vehicle weight rating (GVWR) greater than 26,000 pounds are already required to have installed a PM filter and must be replaced with a 2010 engine between 2015 and 2020, depending on the model year. By 2015, all heavier pre-1994 trucks must be upgraded to 2010 engines and newer trucks are thereafter required to be replaced over the next eight years. Older, more polluting trucks are required to be replaced first, while trucks that already have relatively clean 2007-2009 engines are not required to be replaced until 2023. Lighter trucks (those with a GVWR of 14,001 to 26,000 pounds) must adhere to a similar schedule, and will all be replaced by 2020.

Further, nearly all trucks that are not required under the Truck and Bus Regulation to be replaced by 2015 are required to be upgraded with a PM filter by that date. Therefore, most heavy-duty trucks entering the project site will meet or exceed U.S. EPA 2007 and 2010 emission standards within a relatively short period of time after the project becomes operational in 2018, and all such trucks entering the property will meet or exceed such standards by 2023.

Federal and state agencies regulate and enforce vehicle emission standards. It is not feasible for the City of Moreno Valley staff to effectively enforce a prohibition on trucks from entering the property that are otherwise permitted to operate in California and access other properties in the County, region, and state. And, even if the County were to apply such a restriction, it would merely cause warehouse operators using truck fleets older than 2007/2010 to locate in another location in the South Coast Air Basin where the restriction does not apply, thereby resulting in no improvement to regional air quality. Further if a truck that did not meet this requirement were to attempt access to the site and be denied, there would be more idling emissions and travel emissions associated with that truck.

Project mobile source air quality impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the report, Indian Street Commerce Center Traffic Impact Analysis (Urban Crossroads) 2016 were utilized in this analysis (32). It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. Notwithstanding, for purposes of the air quality study, the PCE trips were not used. Rather, to more accurately estimate and model vehicular-source emissions, the actual number of vehicles, by vehicle classification (e.g., passenger cars (including light trucks), heavy trucks) were used in the analysis.

For purposes of this analysis, the following ITE land use codes and vehicle mixes have been utilized:

- ITE land use code 140 (Manufacturing) has been used to derive site specific trip generation estimates. Manufacturing facilities (ITE Land Use Code 140) are areas where the primary activity is the conversion of raw materials or parts into finished products. Size

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and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research and associated functions. The ITE *Trip Generation* manual includes very limited data regarding the types of vehicles that are generated for manufacturing uses (passenger cars and various sizes of trucks). Total vehicle mix percentages were obtained from the City of Fontana's Truck Trip Generation Study for Heavy Industrial (Land Use Code 110). (33) for the manufacturing use proposed as part of the Project.

- ITE land use code 152 (High-Cube Warehousing) has been used to derive site specific trip generation. High-cube warehouse/distribution centers (ITE Land Use Code 152) are a unique land use type within the larger, more generalized industrial land use category. ITE's most recent edition of the Trip Generation manual (ITE 9th Edition), published in 2012, defines "high-cube warehouses" as "…used for storage of materials, goods and merchandise prior to their distribution to retail outlets, distribution centers or other warehouses. These facilities are typically characterized by ceiling heights of at least 24 feet with small employment counts due to a high level of mechanization." The average square footage for the sites surveyed for high-cube warehouse/distribution center (Land Use 152) use is above 500,000 square feet. The number of sites observed in the compilation of this data ranges from 57-70 sites of which more than 20 sites exceed 1,000,000 square feet in gross floor area. The weighted average daily trip generation rate for high-cube warehouse (Land Use 152) use is 1.68 trips per thousand square feet (TSF). Total vehicle mix percentages were also obtained from the ITE Trip Generation manual in conjunction with the South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type (34). The SCAQMD is currently recommending the use of the ITE Trip Generation manual in conjunction with their truck mix by axle-type to better quantify trip rates associated with local warehouse and distribution projects, as truck emission represent more than 90 percent of air quality impacts from these projects. This recommended procedure has been utilized for the purposes of this analysis in effort to be consistent with other technical studies being prepared for the Project. The percentage of trucks has been determined from the table shown on page 267 of the ITE *Trip Generation* manual. As shown on page 267, the truck trip generation rate for weekday daily traffic is 0.64 or 38.1% of the total traffic. Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks. For the purposes of this analysis, the percentage of trucks, by axle type, were obtained from the SCAQMD interim recommended truck mix. The SCAQMD has recently performed surveys of existing facilities and compiled the data to provide interim guidance on the mix of heavy trucks for these types of high-cube warehousing/distribution facilities. Based on this interim guidance from the SCAQMD, the following truck fleet mix was utilized for the purposes of estimating the truck trip generation for the site: 22.03% of the total trucks as 2-axle trucks, 17.76% of the total trucks as 3-axle trucks, and 60.31% of the total trucks as 4+-axle trucks.

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3.5.3.1 Trip Length

Background

A technical deficiency inherent in calculating the projected vehicle emissions associated with any project is related to the estimation of trip length and vehicle miles traveled (VMT). VMT for a given project is calculated by the total number of vehicle trips to/from the Project x average trip length. This method of estimating VMT for use in calculating vehicle emissions likely results in the over-estimation and double-counting of emissions because, for a distribution warehouse center such as the Project, the land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. In this regard, the Project would, to a large extent, redistribute existing mobile-source emissions rather than generate additional emissions within the Basin. As such, the estimation of the Indian Street Commerce Center Project's vehicular-source emissions is likely overstated in that no credit for, or reduction in, emissions is assumed based on diversion of existing trips.

Provided below is a summary of the VMT recommendations of the SCAQMD and SCAG, followed by a description of the methodology used to calculate the VMT rates used in this AQIA.

SCAQMD Recommendation

In the last five years, the SCAQMD has provided numerous comments on the trip length for warehouse/distribution and industrial land use projects (35). The SCAQMD asserts that the model-default trip length in CalEEMod™ and the URBan EMISsions (URBEMIS) 2007 model (version 9.2.4) would underestimate emissions. The SCAQMD asserts that for warehouse, distribution center, and industrial land use projects, most of the heavy-duty trucks would be hauling consumer goods, often from the Ports of Long Beach and Los Angeles (POLA and POLB) and/or to destinations outside of California. The SCAQMD states that for this reason, the CalEEMod™ and the URBan EMISsions model default trip length (approximately 12.6 miles) would not be representative of activities at like facilities. The SCAQMD generally recommends the use of a 40-mile one-way trip length.

Southern California Association of Government (SCAG) Heavy Duty Truck Model

SCAG is comprised of six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 190 cities in Southern California, and is the organization charged with addressing and resolving short- and long-term regional policy issues. The SCAG region also consists of 14 sub-regional entities recognized by the Regional Council as partners in the regional policy planning process. The SCAG region has more than 19 million residents and encompasses more than 38,000 square miles, representing the largest and most diverse region in the country.

SCAG maintains a regional transportation model. In its most recent (2008) transportation validation for the 2003 Regional Model, SCAG indicates the average internal truck trip length for the SCAG region is 5.92 miles for Light Duty Trucks, 13.06 miles for Medium Duty Trucks, and 24.11 miles for Heavy Duty Trucks.

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Approach for Analysis of the Project

Trip lengths and VMT estimates employed in this AQIA report generate vehicular-source emissions that would represent a maximum impact scenario. Other Environmental Impact Reports (EIRs) for similar land use projects within the region have utilized these same or similar estimates. Though the VMT analyzed in this analysis may differ from the Project's traffic impact analysis, to maintain analytic consistency and establish the maximum impact scenario noted above, the following approach has been utilized in calculating emissions associated with vehicles accessing the Project. This approach is consistent with professional industry practice (36) (37) (38).

For passenger car trips, the CalEEMod default for a one-way trip length of 16.6 miles was assumed. For heavy duty trucks, an average trip length was derived from distances from the Project site to the far edges of the South Coast Air Basin (SCAB) as follows.

- Project site to the Port of Los Angeles/Long Beach: 80 miles;
- Project site to East on State Route 60: 30 miles;
- Project site to San Diego County line: 60 miles;
- Project site to Inland Empire: 50 miles;
- Project site to Perris destinations: 10 miles;
- Project site to Moreno Valley destinations: 10 miles;

Assuming that 50% of all delivery trips will travel to and from the Project and the Port of Los Angeles/Long Beach, 10% go East on the State Route 60, 20% go to San Diego, 10% go to the Inland Empire, 5% go to Perris destinations and the remainder as Moreno Valley destinations. The average truck trip length is calculated as 61 miles.

For each land use (Manufacturing and High-Cube Warehouse), two separate model runs were utilized in order to more accurately model emissions resulting from vehicle operations. The first run analyzed passenger car emissions, which incorporated a default trip length of 16.6 miles for passenger cars and a fleet mix of 100% Light-Duty-Auto vehicles (LDA). The second run analyzed truck emissions, which incorporated an average truck trip length of 61 miles. A fleet mix of 22.03% LHD, 17.66% MHD, and 60.31% HHD was used for High-Cube Warehouse and a fleet mix of 15.76% LHD, 32.82% MHD, and 51.42% HHD was used for Manufacturing Warehouse. The estimated emissions resulting from vehicle operations are summarized in Table 3-7 (presented later in this report.) Detailed emission calculations are provided in Appendix 3.2.

Fugitive Dust Related to Vehicular Travel

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of tire wear particulates. The emissions estimates for travel on paved roads were calculated using the CalEEMod model.

3.5.4 On-Site Equipment Emissions

It is common for an industrial warehouse project to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment

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that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks have a horsepower (hp) range of approximately 175 hp to 200 hp (39). Based on the latest available information from SCAQMD (40); high-cube warehouse projects typically have 3.6 yard trucks per million square feet of building space. For this particular Project, on-site modeled operational equipment includes two (2) yard tractors operating at 4 hours a day (41) for 365 days of the year[6]. In addition to the use of yard trucks operating at the Project site, forklifts are a common piece of equipment used in warehouse operations. The Project includes two (2) 89 hp yard forklifts operating at 4 hours a day for 365 days of the year interior to the building. However, for purposes of the AQIA forklifts are not included in the health risk calculations since there is no diesel exhaust associated with the forklifts as they are assumed to be non-diesel consistent with industry standards.

As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) will be powered by non-diesel fueled engines and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

3.5.5 OPERATIONAL EMISSIONS SUMMARY

Impacts Without Mitigation

Operational-source emissions without implementation of mitigation measures are summarized on Table 3-6. As indicated, the Project would exceed regional thresholds of significance established by the SCAQMD for emissions of NO_x.

TABLE 3-6: SUMMARY OF OPERATIONAL EMISSIONS (WITHOUT MITIGATION) (1 OF 2)

Operational Activities – Summer Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source	14.20	7.90E-04	0.09	1.00E-05	3.00E-04	3.00E-04
Energy Source	0.10	0.89	0.76	5.38E-03	0.07	0.07
Mobile (Trucks)	10.45	174.75	94.33	0.62	22.01	8.15
Mobile (Passenger Cars)	1.22	1.64	22.48	0.08	7.27	1.95
On-Site Equipment	0.34	4.50	1.61	0.01	0.15	0.13
Total Maximum Daily Emissions	**26.31**	**177.28**	**117.66**	**0.71**	**29.35**	**10.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

[6] 4 hour daily on-site operation of the yard trucks is based on the Southern California International Gateway Recirculated Draft EIR. Table C1.2-BL-17 *Activity Data for Existing Business CHE – 2010 Baseline* indicates that the average annual hours of operation for all diesel Container Handling Equipment, Forklifts, and Yard Tractors totaled 72,187 annual operating hours. The total number of pieces of equipment equals 52. As such, 72,187/52 = 1,388 annual hours per piece of equipment. 1,388 annual hours per piece of equipment/365 days = an average of 3.80 hours per day per piece of equipment. As a conservative measure this is rounded up to 4 hours for analytical purposes.

TABLE 3-6: SUMMARY OF OPERATIONAL EMISSIONS (WITHOUT MITIGATION) (2 OR 2)

Operational Activities – Winter Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source	14.20	7.90E-04	0.09	1.00E-05	3.00E-04	3.00E-04
Energy Source	0.10	0.89	0.76	5.38E-03	0.07	0.07
Mobile (Trucks)	10.64	181.76	100.66	0.61	22.01	8.15
Mobile (Passenger Cars)	1.20	1.79	20.34	0.08	7.27	1.95
On-Site Equipment	0.34	4.50	1.61	0.01	0.15	0.13
Total Maximum Daily Emissions	**26.48**	**184.44**	**121.85**	**0.70**	**29.35**	**10.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

Impacts With Mitigation Measures

Operational-source emissions with implementation of mitigation measures are summarized on Table 3-7. Application of MM AQ-4 would generally reduce area-source pollutant emissions. However, as noted previously herein, such reductions would not be substantive and would not materially affect this analysis or its conclusions. Moreover, and as also discussed previously, approximately 92 percent of all operational-source emissions (by weight) would be generated by Project mobile sources (traffic). Neither the Project Applicant nor the Lead Agency can substantively or materially affect reductions in Project mobile-source emissions. Accordingly, and as indicated at Table 3-7, even after implementation of the recommended mitigation measure, Project operational-source NOx emissions exceedances would persist.

TABLE 3-7: SUMMARY OF OPERATIONAL EMISSIONS (WITH MITIGATION) (1 OF 2)

Operational Activities – Summer Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source	12.36	7.90E-04	0.09	1.00E-05	3.00E-04	3.00E-04
Energy Source	0.10	0.89	0.76	5.38E-03	0.07	0.07
Mobile (Trucks)	10.33	174.75	94.33	0.62	22.01	8.15
Mobile (Passenger Cars)	1.21	1.64	22.48	0.08	7.27	1.95
On-Site Equipment	0.34	4.50	1.61	0.01	0.15	0.13
Total Maximum Daily Emissions	**24.34**	**177.28**	**117.66**	**0.71**	**29.35**	**10.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

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TABLE 3-7: SUMMARY OF OPERATIONAL EMISSIONS (WITH MITIGATION) (2 OF 2)

Operational Activities – Summer Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source	12.36	7.90E-04	0.09	1.00E-05	3.00E-04	3.00E-04
Energy Source	0.10	0.89	0.76	5.38E-03	0.07	0.07
Mobile (Trucks)	10.33	174.75	94.33	0.62	22.01	8.15
Mobile (Passenger Cars)	1.21	1.64	22.48	0.08	7.27	1.95
On-Site Equipment	0.34	4.50	1.61	0.01	0.15	0.13
Total Maximum Daily Emissions	**24.34**	**177.28**	**117.66**	**0.71**	**29.35**	**10.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

3.6 LOCALIZED SIGNIFICANCE - CONSTRUCTION ACTIVITY

BACKGROUND ON LOCALIZED SIGNIFICANCE THRESHOLD (LST) DEVELOPMENT

The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (Methodology) (42). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs).

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of any given project are above or below State standards. In the case of CO and NO2, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM10 and PM2.5; both of which are non-attainment pollutants.

The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4[7]. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would

7 The purpose of SCAQMD's Environmental Justice program is to ensure that everyone has the right to equal protection from air pollution and fair access to the decision-making process that works to improve the quality of air within their communities. Further, the SCAQMD defines Environmental Justice as "…equitable environmental policymaking and enforcement to protect the health of all residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution."

cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (LST Methodology) (43).

APPLICABILITY OF LSTS FOR THE PROJECT

For this Project, the appropriate Source Receptor Area (SRA) for the LST analysis is the Perris monitoring station (SRA 24). LSTs apply to carbon monoxide (CO), nitrogen dioxide (NO2), particulate matter ≤ 10 microns (PM10), and particulate matter ≤ 2.5 microns (PM2.5). The SCAQMD produced look-up tables for projects less than or equal to 5 acres in size.

In order to determine the appropriate methodology for determining localized impacts that could occur as a result of Project-related construction, the following process is undertaken:

- CalEEMod is utilized to determine the maximum daily on-site emissions that will occur during construction activity.
- The SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds (44) is used to determine the maximum site acreage that is actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod.
- If the total acreage disturbed is less than or equal to five acres per day, then the SCAQMD's screening look-up tables are utilized to determine if a Project has the potential to result in a significant impact. The look-up tables establish a maximum daily emissions threshold in pounds per day that can be compared to CalEEMod outputs.
- If the total acreage disturbed is greater than five acres per day (as is the case with the Project), then LST impacts are appropriately evaluated through dispersion modeling.

EMISSIONS CONSIDERED

SCAQMD's Methodology clearly states that "off-site mobile emissions from the Project should NOT be included in the emissions compared to LSTs (45)." Therefore, for purposes of the construction LST analysis only emissions included in the CalEEMod "on-site" emissions outputs were considered.

MAXIMUM DAILY DISTURBED-ACREAGE

Maximum localized air pollutant emissions concentrations would occur during Project site grading activities. Table 3-8 is used to determine the maximum daily disturbed-acreage during site grading for purposes of modeling localized emissions. Based on Table 3-8, the proposed Project could actively disturb approximately 3.0 acres per day during the site preparation phase of construction and approximately 8.0 acres per day during the grading phase of construction.

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TABLE 3-8 : MAXIMUM DAILY DISTURBED-ACREAGE

Construction Phase	Equipment Type	Equipment Quantity	Acres graded per 8-hour day	Operating Hours per Day	Acres graded per day
Site Preparation	Rubber Tired Dozers	4	0.5	8	2
	Crawler Tractors	2	0.5	8	1
	Graders	0	0.5	8	0
	Scrapers	0	1	8	0
Total acres graded per day during Site Preparation					3
Grading	Rubber Tired Dozers	2	0.5	8	1
	Crawler Tractors	2	0.5	8	1
	Graders	4	0.5	8	2
	Scrapers	4	1	8	4
Total acres graded per day during Grading					8

Sensitive Receptors

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, individuals with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Structures that house these persons or places where they gather to exercise are defined as "sensitive receptors"; they are also known to be locations where an individual can remain for 24 hours.

Sensitive receptors in the vicinity of the Project site are illustrated at Exhibit 3-A, and include the single-family residential dwellings located at receptor locations R1 to R5. The closest sensitive receptor is represented by location R1 at a distance of approximately 1,968 feet/600 meters northeast of the Project site.

Localized air quality impacts were evaluated at sensitive receptor land uses nearest the Project site. To assess the stationary source operational and construction air impacts, the following 5 sensitive receptor locations, as shown on Exhibit 3-A, were identified.

R1: Located approximately 1,968 feet/600 meters northeast of the Project site on Nandina Avenue, R1 represents an existing single-family residential home.

R2: Location R2 represents the existing residential home located roughly 3,380 feet south of the Project site on Markham Street.

R3: Location R3 represents the existing residential homes situated southwest of the Project site at a distance of approximately 3,645 feet on Markham Street.

R4: Location R4 represents the existing residential homes situated approximately 3,171 feet southwest of the Project site on Nevada Avenue.

R5: At a distance of approximately 3,964 feet, location R5 represents a single-family residential home situated on Patterson Avenue west of the Project site.

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EXHIBIT 3-A: SENSITIVE RECEPTOR LOCATIONS



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DISPERSION MODELING

The Environmental Protection Agency's (U.S. EPA's) AERMOD model was utilized to calculate localized pollutant concentrations for construction an operational activity.

For purposes of this analysis, sensitive receptors are assumed to be located at 1,968 feet/600 meters for emissions of PM_{10}, and $PM_{2.5}$ which have a 24-hour averaging time, for emissions of CO, and NO_2, discrete receptors were placed immediately adjacent to the fence-line (in addition to the 5 sensitive receptors previously discussed) since workers may be exposed at these locations for 1 or 8-hour time periods.

For construction, an area source encompassing approximately 3.0 and 8.0 acres was modeled representative of site preparation and grading activities, respectively. The urban option of the model was selected, and receptor height was conservatively set at 0 meters. For PM_{10} and $PM_{2.5}$ a source release height of 0 meters, and an initial vertical dimension of 1.0 meters was utilized consistent with SCAQMD LST methodology. Additionally, for emissions of NOX and CO released during construction activity, a source release height of 5.0 meters was utilized.

The actual emissions rate (in grams/second/m^2) was programmed into the model based on the on-site CalEEMod emissions estimates. A summary of calculations from both the AERMOD model output and calculations for the actual concentration for each pollutant are available for review in Appendix 3.3.

LOCALIZED THRESHOLDS FOR CONSTRUCTION ACTIVITY

The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the Federal and/or State Ambient Air Quality Standards (46).

Applicable localized thresholds are as follows:

- California State 1-hour CO standard of 20.0 ppm;
- California State 8-hour CO standard of 9.0 ppm;
- California State 1-hour NO2 standard of 0.18 ppm;
- SCAQMD 24-hour construction PM_{10} LST of 10.4 µg/m3; or
- SCAQMD 24-hour construction $PM_{2.5}$ LST of 10.4 µg/m3

Impacts without Mitigation

Without mitigation, emissions during site preparation and grading activity will exceed the SCAQMD's localized significance thresholds for emissions of NO2 only. Table 3-9 and 3-10 identifies the unmitigated localized impacts at the nearest receptor location in the vicinity of the Project during site preparation and grading activity.

TABLE 3-9 LOCALIZED SIGNIFICANCE SUMMARY SITE PREPARATION (WITHOUT MITIGATION)

Site Preparation	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours (Construction)	
Peak Day Localized Emissions	1.12	0.77	0.13	3.46	6.73
Background Concentration [A]	2.0	1.6	0.06		
Total Concentration	**3.12**	**2.37**	**0.19**	**3.46**	**6.73**
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	10.4
Threshold Exceeded?	**NO**	**NO**	**YES**	**NO**	**NO**

TABLE 3-10 LOCALIZED SIGNIFICANCE SUMMARY GRADING (WITHOUT MITIGATION)

Grading	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours (Construction)	
Peak Day Localized Emissions	0.95	0.83	0.14	7.67	10.3
Background Concentration [A]	2.0	1.6	0.06		
Total Concentration	**2.95**	**2.43**	**0.20**	**7.67**	**10.3**
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	10.4
Threshold Exceeded?	**NO**	**NO**	**YES**	**NO**	**NO**

[A] Highest concentration from the last three years of available data

Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in $\mu g/m^3$. All others are expressed in ppm

Impacts With Mitigation

With implementation of MM AQ-1 through MM AQ-3, emissions during site preparation and grading activity will not exceed the SCAQMD's localized significance thresholds for any criteria pollutants. Table 3-11 and 3-12 summarize the mitigated localized impacts at the nearest receptor location in the vicinity of the Project for site preparation and grading activity, respectively.

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TABLE 3-11 LOCALIZED SIGNIFICANCE SUMMARY SITE PREPARATION (WITH MITIGATION)

Site Preparation	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours (Construction)	
Peak Day Localized Emissions	0.91	0.71	0.08	3.16	2.64
Background Concentration [A]	2.0	1.6	0.06		
Total Concentration	**2.91**	**2.31**	**0.15**	**3.16**	**2.64**
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	10.4
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**

TABLE 3-12 LOCALIZED SIGNIFICANCE SUMMARY GRADING (WITH MITIGATION)

Grading	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours (Construction)	
Peak Day Localized Emissions	0.66	0.58	0.09	2.89	3.95
Background Concentration [A]	2.0	1.6	0.06		
Total Concentration	**2.66**	**2.18**	**0.16**	**2.89**	**3.95**
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	10.4
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**

[A] Highest concentration from the last three years of available data

Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in $\mu g/m^3$. All others are expressed in ppm

3.7 LOCALIZED SIGNIFICANCE – LONG-TERM OPERATIONAL ACTIVITY

For operational activities, an area source encompassing the building square footage was modeled, approximately 436,350 square feet to account for on-site energy and equipment emissions. Emissions associated with on-site passenger car and truck travel and idling were determined utilizing multiple adjacent volume sources. All other modeling options consistent with construction activity previously described were utilized.

Emissions from on-site activity including area, energy, and on-site equipment were obtained from CalEEMod, emissions from on-site passenger car and truck travel and idling were calculated using EMFAC 2014. A summary of calculations from the AERMOD model output for each pollutant are available for review in Appendix 3.3. Dispersion modeling and receptor distances consistent with construction activity as described above were utilized.

LOCALIZED THRESHOLDS FOR OPERATIONAL ACTIVITY

The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the Federal and/or State Ambient Air Quality Standards (46).

Applicable localized thresholds are as follows:

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- California State 1-hour CO standard of 20.0 ppm;
- California State 8-hour CO standard of 9.0 ppm;
- California State 1-hour NO2 standard of 0.18 ppm;
- SCAQMD 24-hour operational PM_{10} LST of 2.5 µg/m3;
- SCAQMD 24-hour operational $PM_{2.5}$ LST of 2.5 µg/m3.

Impacts Without Mitigation

As shown on Table 3-11, operation emissions would not exceed the LST thresholds for the nearest sensitive receptor. MM AQ-4 presented previously would act to generally reduce total daily operational-source emissions, and would also act to further reduce already less-than-significant localized operational-source air pollutant emissions concentrations.

TABLE 3-11: LOCALIZED SIGNIFICANCE SUMMARY OPERATIONS (WITHOUT MITIGATION)

Operation	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours (Operations)	
Peak Day Localized Emissions	0.01	0.01	0.01	0.32	0.29
Background Concentration [A]	2.0	1.6	0.06		
Total Concentration	**2.01**	**1.61**	**0.07**	**0.32**	**0.29**
SCAQMD Localized Significance Threshold	20	9	0.18	2.50	2.50
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**

[A] Highest concentration from the last three years of available data
Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in µg/m^3. All others are expressed in ppm

3.8 CO "HOT SPOT" ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or "hot spots." Further, detailed modeling of Project-specific carbon monoxide (CO) "hot spots" is not needed to reach this conclusion.

An adverse CO concentration, known as a "hot spot", would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the 1993 Handbook, the SCAB was designated nonattainment under the California AAQS and National AAQS for CO (47).

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment, as previously noted

in Table 2-2. Also, CO concentrations in the Project vicinity have steadily declined, as indicated by historical emissions data presented previously at Table 2-3.

To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards, as shown on Table 3-12.

Based on the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 9.3 ppm 8-hr CO concentration measured at the Long Beach Blvd. and Imperial Hwy. intersection (highest CO generating intersection within the "hot spot" analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 8.6 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (47). In contrast, the ambient 8-hr CO concentration within the Project study area is estimated at 1.4 ppm—1.6 ppm (please refer to previous Table 2-3). Therefore, even if the traffic volumes for the proposed Project were double or even triple of the traffic volumes generated at the Long Beach Blvd. and Imperial Hwy. intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO "hot spot" at any study area intersections.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (48).

Traffic volumes generating the CO concentrations for the "hot spot" analysis, shown on Table 3-13. The busiest intersection evaluated was that at Wilshire Blvd. and Veteran Ave., which has a daily traffic volume of approximately 100,000 vehicles per day. The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations (4.6 ppm x 4= 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm).[8] At buildout of the Project, the highest average daily trips on a segment of road would be 36,100 daily trips on Harley Knox Blvd. west of Indian Street which is lower than the highest daily traffic volumes generated at the busiest intersection in the CO "hot spot" analysis (49).

The proposed Project considered herein would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the 2003 Los Angeles hot spot study, or based on representative BAAQMD CO threshold considerations, as shown on Table 3-14. Therefore, CO

8 Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

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"hot spots" are not an environmental impact of concern for the proposed Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

TABLE 3-12: CO MODEL RESULTS

Intersection Location	Carbon Monoxide Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire-Veteran	4.6	3.5	4.2
Sunset-Highland	4	4.5	3.9
La Cienega-Century	3.7	3.1	5.8
Long Beach-Imperial	3	3.1	9.3

TABLE 3-13: TRAFFIC VOLUMES FOR INTERSECTIONS EVALUATED IN AQMP

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire-Veteran	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset-Highland	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega-Century	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach-Imperial	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

TABLE 3-14: PROJECT PEAK HOUR TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
I-215 NB Ramps - Harley Knox Blvd.	511/348	0/0	2,298/1,586	1,414/2,552	4,223/4,486
Western Wy. - Harley Knox Blvd.	0/0	77/108	2,275/1,374	1,369/2,464	3,721/3,946
Patterson Ave. - Harley Knox Blvd.	141/96	27/103	2,130/1,333	1,246/2,313	3,544/3,845
Indian St. - Harley Knox Blvd.	357/400	573/1,569	2,048/1,317	691/919	3,669/4,205

Source: Indian Street Commerce Center Traffic Impact Analysis (Urban Crossroads, Inc., 2016).

3.9 AIR QUALITY MANAGEMENT PLANNING

The Project site is located within the SCAB, which is characterized by relatively poor air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the Southern California Association of Governments (SCAG), county transportation commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

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Currently, these state and federal air quality standards are exceeded in most parts of the Basin. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

The Final 2012 AQMP was adopted by the AQMD Governing Board on December 7, 2012 (16). The 2012 AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy and updated emission inventory methodologies for various source categories.

Similar to the 2007 AQMP, the 2012 AQMP was based on assumptions provided by both CARB and SCAG in the latest available EMFAC model for the most recent motor vehicle and demographics information, respectively. The air quality levels projected in the 2012 AQMP are based on several assumptions. For example, the 2012 AQMP has assumed that development associated with general plans, specific plans, residential projects, and wastewater facilities will be constructed in accordance with population growth projections identified by SCAG in its 2012 RTP. The 2012 AQMP also has assumed that such development projects will implement strategies to reduce emissions generated during the construction and operational phases of development. The Project's consistency with the 2012 AQMP is discussed as follows:

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993) (22). These indicators are discussed below:

- Consistency Criterion No. 1: The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

The violations that Criterion No. 1 refers to are the CAAQS and NAAQS. The CAAQS and NAAQS comprise, and are reflected in, the SCAQMD Localized Significance Thresholds (LSTs) described previously in this analysis. It is noted here that the CAAQS and NAAQS are not equivalent to SCAQMD regional emissions thresholds. The first AQMP consistency criterion specifically inquires whether or not a project would "result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations . . ." The only way to effectively answer this question is to determine if the NAAQS or CAAQS are exceeded – both of which are concentration-based thresholds, as opposed to the regional burden emissions "pounds per day" thresholds established by the SCAQMD. The SCAQMD employs these regional thresholds to allow for and establish uniform mitigation requirements for all projects. However, evaluating whether a project would generate emissions exceeding SCAQMD regional thresholds does not answer first criterion question since these regional thresholds are not tied back to the CAAQS/NAAQS.

The Project LST analysis substantiates that Project construction-source emissions and operational-source emissions would not exceed applicable LSTs. The Project would also therefore not violate the CAAQS or the NAAQS. It is noted and clarified here that the CAAQS and NAAQS are not equivalent to the SCAQMD regional thresholds. Further, the Project would implement

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applicable BACMs, and would comply with applicable SCAQMD rules, acting to further reduce its already less-than-significant air pollutant emissions. Moreover, urban location of the Project proximate to local and regional transportation facilities acts to reduce vehicle miles traveled (VMT) and associated mobile-source (vehicular) emissions. Additionally, Project incorporation of contemporary energy-efficient technologies and operational programs; and compliance with SCAQMD emissions reductions and control requirements act to reduce stationary-source air emissions. These Project attributes and features are consistent with and support AQMP air pollution reduction strategies and promote timely attainment of AQMP air quality standards.

On the basis of the preceding discussion, the Project is determined to be consistent with the first criterion.

- Consistency Criterion No. 2: The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.

Overview

The 2012 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to the Southern California Association of Governments (SCAG), which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in City of Moreno Valley General Plan Update is considered to be consistent with the AQMP.

Construction Impacts

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site's land use designation, development of the site to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities.

Operational Impacts

The City of Moreno Valley's General Plan Land Use designation for the Project site is Business Park/Light Industrial (BP/LI), which allows for "manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities (2)." The land uses and development proposed by the Project are permitted/conditionally permitted under the Project site's current BP/LI Land Use designations. The Project is located within Specific Plan 208 (SP 208), Moreno Valley Industrial Area Plan (MVIAP) (formerly the Oleander Specific Plan. SP 208 land uses of the Project site are zoned Industrial. The development concepts and uses proposed by the Project are permitted or conditionally permitted under the site's current SP 208 Industrial zoning designation. As such, the Project's land uses and development are permitted/conditionally permitted under the City General Plan Land Use designations and under the SP 208's zoning designation. Therefore, no changes are proposed to these existing designations.

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AQMP Consistency Conclusion

The Project would not result in or cause NAAQS or CAAQS violations. The Project's proposed land use designation for the subject site is permitted/conditionally permitted in the adopted City General Plan. The Project is therefore consistent with the AQMP.

3.10 Potential Impacts to Sensitive Receptors

The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Sensitive receptors can include uses such as long term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child care centers, and athletic facilities can also be considered as sensitive receptors.

Results of the LST analysis indicate that, with application of mitigation, the Project will not exceed the SCAQMD localized significance thresholds during construction. Therefore sensitive receptors would not be exposed to substantial pollutant concentrations during Project construction.

Results of the LST analysis indicate that the Project will not exceed the SCAQMD localized significance thresholds during operational activity. Further Project traffic would not create or result in a CO "hotspot." Therefore sensitive receptors would not be exposed to substantial pollutant concentrations as the result of Project operations.

3.11 Odors

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous commercial refuse. Consistent with City requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations, thereby precluding substantial generation of odors due to temporary holding of refuse on-site Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances (1).

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5 CERTIFICATION

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Indian Street Commerce Center Project. The information contained in this air quality impact report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 660-1994 ext. 217.

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EDUCATION

Master of Science in Environmental Studies
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Bachelor of Arts in Environmental Analysis and Design
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PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Environmental Site Assessment – American Society for Testing and Materials • June, 2013
Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
Air Dispersion Modeling – Lakes Environmental • June, 2006

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APPENDIX 3.1:

CALEEMOD EMISSIONS MODEL OUTPUTS

Construction-Unmitigated

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	372.00	Space	9.39	148,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total lot acreage: 19.64; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Based on a 2018 opening year

Off-road Equipment - Based on a 8 hour workday and past project experience

Off-road Equipment - Based on a 8 hour workday

Off-road Equipment - Off-highway trucks=water trucks; based on past project experience

Off-road Equipment -

Off-road Equipment - Off-highway trucks=water trucks; based on past project experience

Demolition -

Grading -

Architectural Coating - Interior/Exterior area based on information provided by the architect

Vehicle Trips - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Road Dust - Construction run only

Area Coating - Construction run only

Landscape Equipment - Construction run only

Energy Use - Construction run only

Water And Wastewater - Construction run only

Solid Waste - Construction run only

Construction Off-road Equipment Mitigation -

Consumer Products - Construction run only

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	225,407.00	125,820.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	676,221.00	131,376.00
tblAreaCoating	ReapplicationRatePercent	10	0

tblConstructionPhase	NumDays	20.00	40.00
tblConsumerProducts	ROG_EF	1.98E-05	1E-10
tblEnergyUse	LightingElect	3.36	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	0.82	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	2.69	0.00
tblEnergyUse	T24E	0.45	0.00
tblEnergyUse	T24NG	16.16	0.00
tblEnergyUse	T24NG	2.11	0.00
tblGrading	MaterialImported	0.00	3,000.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LotAcreage	3.35	9.39
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00

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tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	110.69	0.00
tblSolidWaste	SolidWasteGenerationRate	335.66	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
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tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00

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tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	3.82	0.00
tblVehicleTrips	WD_TR	2.59	0.00
tblWater	IndoorWaterUseRate	20,643,687.50	0.00
tblWater	IndoorWaterUseRate	82,574,750.00	0.00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	14.4678	166.2941	95.7523	0.1480	25.4842	7.3862	30.0516	13.4444	6.7953	17.6464	0.0000	15,005.3362	15,005.3362	4.2209	0.0000	15,093.9741
2018	76.4332	33.2639	40.8107	0.0853	3.4071	1.7384	5.1454	0.9156	1.6294	2.5450	0.0000	7,620.4131	7,620.4131	0.8427	0.0000	7,638.1089
Total	**90.9010**	**199.5580**	**136.5630**	**0.2333**	**28.8912**	**9.1246**	**35.1970**	**14.3599**	**8.4248**	**20.1914**	**0.0000**	**22,625.7492**	**22,625.7492**	**5.0635**	**0.0000**	**22,732.0830**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	14.4678	166.2941	95.7523	0.1480	25.4842	7.3862	30.0516	13.4444	6.7953	17.6464	0.0000	15,005.3362	15,005.3362	4.2209	0.0000	15,093.9740
2018	76.4332	33.2639	40.8107	0.0853	3.4071	1.7384	5.1454	0.9156	1.6294	2.5450	0.0000	7,620.4130	7,620.4130	0.8427	0.0000	7,638.1089
Total	**90.9010**	**199.5580**	**136.5630**	**0.2333**	**28.8912**	**9.1246**	**35.1970**	**14.3599**	**8.4248**	**20.1914**	**0.0000**	**22,625.7492**	**22,625.7492**	**5.0635**	**0.0000**	**22,732.0830**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**	**0.0000**	**3.0000e-004**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**	**0.0000**	**0.1894**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**	**0.0000**	**3.0000e-004**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**	**0.0000**	**0.1894**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/28/2017	2/10/2017	5	10	
2	Grading	Grading	2/11/2017	3/24/2017	5	30	
3	Building Construction	Building Construction	3/25/2017	5/18/2018	5	300	
4	Paving	Paving	5/19/2018	6/15/2018	5	20	
5	Architectural Coating	Architectural Coating	6/16/2018	8/10/2018	5	40	

Acres of Grading (Site Preparation Phase): 10

Acres of Grading (Grading Phase): 210

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 131,376; Non-Residential Outdoor: 125,820 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	2	8.00	208	0.43
Site Preparation	Excavators	4	8.00	162	0.38
Site Preparation	Off-Highway Trucks	2	8.00	189	0.50
Site Preparation	Rubber Tired Dozers	4	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	208	0.43
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	4	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.50
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	4	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Aerial Lifts	4	8.00	62	0.31
Architectural Coating	Air Compressors	4	8.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	14	35.00	0.00	375.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	250.00	98.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	8	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.1488	0.0000	25.1488	13.3554	0.0000	13.3554			0.0000			0.0000
Off-Road	8.9560	101.5691	64.7844	0.0883		4.5647	4.5647		4.1995	4.1995		9,031.3429	9,031.3429	2.7672		9,089.4538
Total	**8.9560**	**101.5691**	**64.7844**	**0.0883**	**25.1488**	**4.5647**	**29.7136**	**13.3554**	**4.1995**	**17.5550**		**9,031.3429**	**9,031.3429**	**2.7672**		**9,089.4538**

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3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1123	0.1411	1.7611	4.2500e-003	0.3353	2.7000e-003	0.3380	0.0889	2.4900e-003	0.0914		343.2173	343.2173	0.0169		343.5718
Total	**0.1123**	**0.1411**	**1.7611**	**4.2500e-003**	**0.3353**	**2.7000e-003**	**0.3380**	**0.0889**	**2.4900e-003**	**0.0914**		**343.2173**	**343.2173**	**0.0169**		**343.5718**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.1488	0.0000	25.1488	13.3554	0.0000	13.3554			0.0000			0.0000
Off-Road	8.9560	101.5691	64.7844	0.0883		4.5647	4.5647		4.1995	4.1995	0.0000	9,031.3429	9,031.3429	2.7672		9,089.4538
Total	**8.9560**	**101.5691**	**64.7844**	**0.0883**	**25.1488**	**4.5647**	**29.7136**	**13.3554**	**4.1995**	**17.5550**	**0.0000**	**9,031.3429**	**9,031.3429**	**2.7672**		**9,089.4538**

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3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1123	0.1411	1.7611	4.2500e-003	0.3353	2.7000e-003	0.3380	0.0889	2.4900e-003	0.0914		343.2173	343.2173	0.0169		343.5718
Total	**0.1123**	**0.1411**	**1.7611**	**4.2500e-003**	**0.3353**	**2.7000e-003**	**0.3380**	**0.0889**	**2.4900e-003**	**0.0914**		**343.2173**	**343.2173**	**0.0169**		**343.5718**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.4790	0.0000	19.4790	7.4237	0.0000	7.4237			0.0000			0.0000
Off-Road	14.1331	162.9547	91.3647	0.1338		7.3341	7.3341		6.7474	6.7474		13,690.0949	13,690.0949	4.1946		13,778.1819
Total	**14.1331**	**162.9547**	**91.3647**	**0.1338**	**19.4790**	**7.3341**	**26.8131**	**7.4237**	**6.7474**	**14.1711**		**13,690.0949**	**13,690.0949**	**4.1946**		**13,778.1819**

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3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2037	3.1748	2.3330	9.2200e-003	0.2178	0.0490	0.2668	0.0596	0.0451	0.1047		914.8212	914.8212	6.5300e-003		914.9584
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1310	0.1646	2.0546	4.9600e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		400.4201	400.4201	0.0197		400.8338
Total	**0.3347**	**3.3394**	**4.3877**	**0.0142**	**0.6090**	**0.0521**	**0.6611**	**0.1634**	**0.0480**	**0.2114**		**1,315.2413**	**1,315.2413**	**0.0262**		**1,315.7922**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.4790	0.0000	19.4790	7.4237	0.0000	7.4237			0.0000			0.0000
Off-Road	14.1331	162.9547	91.3647	0.1338		7.3341	7.3341		6.7474	6.7474	0.0000	13,690.0949	13,690.0949	4.1946		13,778.1819
Total	**14.1331**	**162.9547**	**91.3647**	**0.1338**	**19.4790**	**7.3341**	**26.8131**	**7.4237**	**6.7474**	**14.1711**	**0.0000**	**13,690.0949**	**13,690.0949**	**4.1946**		**13,778.1819**

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3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2037	3.1748	2.3330	9.2200e-003	0.2178	0.0490	0.2668	0.0596	0.0451	0.1047		914.8212	914.8212	6.5300e-003		914.9584
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1310	0.1646	2.0546	4.9600e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		400.4201	400.4201	0.0197		400.8338
Total	**0.3347**	**3.3394**	**4.3877**	**0.0142**	**0.6090**	**0.0521**	**0.6611**	**0.1634**	**0.0480**	**0.2114**		**1,315.2413**	**1,315.2413**	**0.0262**		**1,315.7922**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914		2,831.3094	2,831.3094	0.7084		2,846.1853
Total	**3.3022**	**28.5087**	**19.3714**	**0.0287**		**1.9099**	**1.9099**		**1.7914**	**1.7914**		**2,831.3094**	**2,831.3094**	**0.7084**		**2,846.1853**

3.4 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7504	7.7495	9.1933	0.0213	0.6127	0.1233	0.7360	0.1745	0.1134	0.2879		2,103.7382	2,103.7382	0.0148		2,104.0497
Worker	0.9356	1.1754	14.6759	0.0354	2.7944	0.0225	2.8169	0.7411	0.0207	0.7618		2,860.1438	2,860.1438	0.1407		2,863.0986
Total	**1.6860**	**8.9249**	**23.8692**	**0.0567**	**3.4071**	**0.1458**	**3.5529**	**0.9156**	**0.1342**	**1.0497**		**4,963.8820**	**4,963.8820**	**0.1555**		**4,967.1483**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914	0.0000	2,831.3094	2,831.3094	0.7084		2,846.1853
Total	**3.3022**	**28.5087**	**19.3714**	**0.0287**		**1.9099**	**1.9099**		**1.7914**	**1.7914**	**0.0000**	**2,831.3094**	**2,831.3094**	**0.7084**		**2,846.1853**

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3.4 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7504	7.7495	9.1933	0.0213	0.6127	0.1233	0.7360	0.1745	0.1134	0.2879		2,103.7382	2,103.7382	0.0148		2,104.0497
Worker	0.9356	1.1754	14.6759	0.0354	2.7944	0.0225	2.8169	0.7411	0.0207	0.7618		2,860.1438	2,860.1438	0.1407		2,863.0986
Total	**1.6860**	**8.9249**	**23.8692**	**0.0567**	**3.4071**	**0.1458**	**3.5529**	**0.9156**	**0.1342**	**1.0497**		**4,963.8820**	**4,963.8820**	**0.1555**		**4,967.1483**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023		2,798.2338	2,798.2338	0.6973		2,812.8775
Total	**2.8383**	**25.0811**	**18.7173**	**0.0287**		**1.6002**	**1.6002**		**1.5023**	**1.5023**		**2,798.2338**	**2,798.2338**	**0.6973**		**2,812.8775**

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7039	7.1164	8.7589	0.0213	0.6127	0.1162	0.7289	0.1745	0.1069	0.2814		2,068.4603	2,068.4603	0.0148		2,068.7700
Worker	0.8435	1.0663	13.3345	0.0354	2.7944	0.0219	2.8163	0.7411	0.0203	0.7613		2,753.7189	2,753.7189	0.1306		2,756.4614
Total	**1.5474**	**8.1827**	**22.0934**	**0.0567**	**3.4071**	**0.1381**	**3.5452**	**0.9156**	**0.1272**	**1.0428**		**4,822.1793**	**4,822.1793**	**0.1453**		**4,825.2314**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023	0.0000	2,798.2338	2,798.2338	0.6973		2,812.8775
Total	**2.8383**	**25.0811**	**18.7173**	**0.0287**		**1.6002**	**1.6002**		**1.5023**	**1.5023**	**0.0000**	**2,798.2338**	**2,798.2338**	**0.6973**		**2,812.8775**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

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3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7039	7.1164	8.7589	0.0213	0.6127	0.1162	0.7289	0.1745	0.1069	0.2814		2,068.4603	2,068.4603	0.0148		2,068.7700
Worker	0.8435	1.0663	13.3345	0.0354	2.7944	0.0219	2.8163	0.7411	0.0203	0.7613		2,753.7189	2,753.7189	0.1306		2,756.4614
Total	**1.5474**	**8.1827**	**22.0934**	**0.0567**	**3.4071**	**0.1381**	**3.5452**	**0.9156**	**0.1272**	**1.0428**		**4,822.1793**	**4,822.1793**	**0.1453**		**4,825.2314**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	1.2301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8415**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0506	0.0640	0.8001	2.1200e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		165.2231	165.2231	7.8400e-003		165.3877
Total	**0.0506**	**0.0640**	**0.8001**	**2.1200e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**165.2231**	**165.2231**	**7.8400e-003**		**165.3877**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	1.2301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8415**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

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3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0506	0.0640	0.8001	2.1200e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		165.2231	165.2231	7.8400e-003		165.3877
Total	**0.0506**	**0.0640**	**0.8001**	**2.1200e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**165.2231**	**165.2231**	**7.8400e-003**		**165.3877**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.5065					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.7580	13.4954	14.1831	0.0225		0.8803	0.8803		0.8741	0.8741		2,166.1081	2,166.1081	0.3497		2,173.4512
Total	**76.2645**	**13.4954**	**14.1831**	**0.0225**		**0.8803**	**0.8803**		**0.8741**	**0.8741**		**2,166.1081**	**2,166.1081**	**0.3497**		**2,173.4512**

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3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1687	0.2133	2.6669	7.0800e-003	0.5589	4.3800e-003	0.5633	0.1482	4.0500e-003	0.1523		550.7438	550.7438	0.0261		551.2923
Total	**0.1687**	**0.2133**	**2.6669**	**7.0800e-003**	**0.5589**	**4.3800e-003**	**0.5633**	**0.1482**	**4.0500e-003**	**0.1523**		**550.7438**	**550.7438**	**0.0261**		**551.2923**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.5065					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.7580	13.4954	14.1831	0.0225		0.8803	0.8803		0.8741	0.8741	0.0000	2,166.1081	2,166.1081	0.3497		2,173.4512
Total	**76.2645**	**13.4954**	**14.1831**	**0.0225**		**0.8803**	**0.8803**		**0.8741**	**0.8741**	**0.0000**	**2,166.1081**	**2,166.1081**	**0.3497**		**2,173.4512**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1687	0.2133	2.6669	7.0800e-003	0.5589	4.3800e-003	0.5633	0.1482	4.0500e-003	0.1523		550.7438	550.7438	0.0261		551.2923
Total	**0.1687**	**0.2133**	**2.6669**	**7.0800e-003**	**0.5589**	**4.3800e-003**	**0.5633**	**0.1482**	**4.0500e-003**	**0.1523**		**550.7438**	**550.7438**	**0.0261**		**551.2923**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Unmitigated	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0000e-005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.1000e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**		**0.1894**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0000e-005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.1000e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**		**0.1894**

7.0 Water Detail

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7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

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Construction-Unmitigated

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	372.00	Space	9.39	148,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total lot acreage: 19.64; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Based on a 2018 opening year

Off-road Equipment - Based on a 8 hour workday and past project experience

Off-road Equipment - Based on a 8 hour workday

Off-road Equipment - Off-highway trucks=water trucks; based on past project experience

Off-road Equipment -

Off-road Equipment - Off-highway trucks=water trucks; based on past project experience

Demolition -

Grading -

Architectural Coating - Interior/Exterior area based on information provided by the architect

Vehicle Trips - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Road Dust - Construction run only

Area Coating - Construction run only

Landscape Equipment - Construction run only

Energy Use - Construction run only

Water And Wastewater - Construction run only

Solid Waste - Construction run only

Construction Off-road Equipment Mitigation -

Consumer Products - Construction run only

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	225,407.00	125,820.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	676,221.00	131,376.00
tblAreaCoating	ReapplicationRatePercent	10	0

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

tblConstructionPhase	NumDays	20.00	40.00
tblConsumerProducts	ROG_EF	1.98E-05	1E-10
tblEnergyUse	LightingElect	3.36	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	0.82	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	2.69	0.00
tblEnergyUse	T24E	0.45	0.00
tblEnergyUse	T24NG	16.16	0.00
tblEnergyUse	T24NG	2.11	0.00
tblGrading	MaterialImported	0.00	3,000.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LotAcreage	3.35	9.39
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	110.69	0.00
tblSolidWaste	SolidWasteGenerationRate	335.66	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	3.82	0.00
tblVehicleTrips	WD_TR	2.59	0.00
tblWater	IndoorWaterUseRate	20,643,687.50	0.00
tblWater	IndoorWaterUseRate	82,574,750.00	0.00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	14.4810	166.4250	95.9421	0.1476	25.4842	7.3863	30.0516	13.4444	6.7954	17.6464	0.0000	14,978.2378	14,978.2378	4.2209	0.0000	15,066.8775
2018	76.4362	33.5401	41.6058	0.0829	3.4071	1.7395	5.1465	0.9156	1.6305	2.5460	0.0000	7,431.2442	7,431.2442	0.8431	0.0000	7,448.9501
Total	**90.9172**	**199.9651**	**137.5479**	**0.2306**	**28.8912**	**9.1258**	**35.1981**	**14.3599**	**8.4259**	**20.1924**	**0.0000**	**22,409.4820**	**22,409.4820**	**5.0641**	**0.0000**	**22,515.8276**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	14.4810	166.4250	95.9421	0.1476	25.4842	7.3863	30.0516	13.4444	6.7954	17.6464	0.0000	14,978.2377	14,978.2377	4.2209	0.0000	15,066.8775
2018	76.4362	33.5401	41.6058	0.0829	3.4071	1.7395	5.1465	0.9156	1.6305	2.5460	0.0000	7,431.2442	7,431.2442	0.8431	0.0000	7,448.9501
Total	**90.9172**	**199.9651**	**137.5479**	**0.2306**	**28.8912**	**9.1258**	**35.1981**	**14.3599**	**8.4259**	**20.1924**	**0.0000**	**22,409.4820**	**22,409.4820**	**5.0641**	**0.0000**	**22,515.8276**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**	**0.0000**	**3.0000e-004**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**	**0.0000**	**0.1894**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**	**0.0000**	**3.0000e-004**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**	**0.0000**	**0.1894**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/28/2017	2/10/2017	5	10	
2	Grading	Grading	2/11/2017	3/24/2017	5	30	
3	Building Construction	Building Construction	3/25/2017	5/18/2018	5	300	
4	Paving	Paving	5/19/2018	6/15/2018	5	20	
5	Architectural Coating	Architectural Coating	6/16/2018	8/10/2018	5	40	

Acres of Grading (Site Preparation Phase): 10

Acres of Grading (Grading Phase): 210

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 131,376; Non-Residential Outdoor: 125,820 (Architectural Coating – sqft)

OffRoad Equipment

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	2	8.00	208	0.43
Site Preparation	Excavators	4	8.00	162	0.38
Site Preparation	Off-Highway Trucks	2	8.00	189	0.50
Site Preparation	Rubber Tired Dozers	4	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	208	0.43
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	4	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.50
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	4	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Aerial Lifts	4	8.00	62	0.31
Architectural Coating	Air Compressors	4	8.00	78	0.48

Trips and VMT

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	14	35.00	0.00	375.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	250.00	98.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	8	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.1488	0.0000	25.1488	13.3554	0.0000	13.3554			0.0000			0.0000
Off-Road	8.9560	101.5691	64.7844	0.0883		4.5647	4.5647		4.1995	4.1995		9,031.3429	9,031.3429	2.7672		9,089.4538
Total	**8.9560**	**101.5691**	**64.7844**	**0.0883**	**25.1488**	**4.5647**	**29.7136**	**13.3554**	**4.1995**	**17.5550**		**9,031.3429**	**9,031.3429**	**2.7672**		**9,089.4538**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1145	0.1549	1.6177	3.9800e-003	0.3353	2.7000e-003	0.3380	0.0889	2.4900e-003	0.0914		321.8538	321.8538	0.0169		322.2083
Total	**0.1145**	**0.1549**	**1.6177**	**3.9800e-003**	**0.3353**	**2.7000e-003**	**0.3380**	**0.0889**	**2.4900e-003**	**0.0914**		**321.8538**	**321.8538**	**0.0169**		**322.2083**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.1488	0.0000	25.1488	13.3554	0.0000	13.3554			0.0000			0.0000
Off-Road	8.9560	101.5691	64.7844	0.0883		4.5647	4.5647		4.1995	4.1995	0.0000	9,031.3429	9,031.3429	2.7672		9,089.4538
Total	**8.9560**	**101.5691**	**64.7844**	**0.0883**	**25.1488**	**4.5647**	**29.7136**	**13.3554**	**4.1995**	**17.5550**	**0.0000**	**9,031.3429**	**9,031.3429**	**2.7672**		**9,089.4538**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1145	0.1549	1.6177	3.9800e-003	0.3353	2.7000e-003	0.3380	0.0889	2.4900e-003	0.0914		321.8538	321.8538	0.0169		322.2083
Total	**0.1145**	**0.1549**	**1.6177**	**3.9800e-003**	**0.3353**	**2.7000e-003**	**0.3380**	**0.0889**	**2.4900e-003**	**0.0914**		**321.8538**	**321.8538**	**0.0169**		**322.2083**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.4790	0.0000	19.4790	7.4237	0.0000	7.4237			0.0000			0.0000
Off-Road	14.1331	162.9547	91.3647	0.1338		7.3341	7.3341		6.7474	6.7474		13,690.0949	13,690.0949	4.1946		13,778.1819
Total	**14.1331**	**162.9547**	**91.3647**	**0.1338**	**19.4790**	**7.3341**	**26.8131**	**7.4237**	**6.7474**	**14.1711**		**13,690.0949**	**13,690.0949**	**4.1946**		**13,778.1819**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2143	3.2896	2.6902	9.2000e-003	0.2178	0.0491	0.2669	0.0596	0.0452	0.1048		912.6468	912.6468	6.6200e-003		912.7859
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1336	0.1807	1.8873	4.6400e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		375.4961	375.4961	0.0197		375.9097
Total	**0.3479**	**3.4703**	**4.5775**	**0.0138**	**0.6090**	**0.0522**	**0.6612**	**0.1634**	**0.0481**	**0.2115**		**1,288.1429**	**1,288.1429**	**0.0263**		**1,288.6956**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.4790	0.0000	19.4790	7.4237	0.0000	7.4237			0.0000			0.0000
Off-Road	14.1331	162.9547	91.3647	0.1338		7.3341	7.3341		6.7474	6.7474	0.0000	13,690.0949	13,690.0949	4.1946		13,778.1819
Total	**14.1331**	**162.9547**	**91.3647**	**0.1338**	**19.4790**	**7.3341**	**26.8131**	**7.4237**	**6.7474**	**14.1711**	**0.0000**	**13,690.0949**	**13,690.0949**	**4.1946**		**13,778.1819**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2143	3.2896	2.6902	9.2000e-003	0.2178	0.0491	0.2669	0.0596	0.0452	0.1048		912.6468	912.6468	6.6200e-003		912.7859
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1336	0.1807	1.8873	4.6400e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		375.4961	375.4961	0.0197		375.9097
Total	**0.3479**	**3.4703**	**4.5775**	**0.0138**	**0.6090**	**0.0522**	**0.6612**	**0.1634**	**0.0481**	**0.2115**		**1,288.1429**	**1,288.1429**	**0.0263**		**1,288.6956**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914		2,831.3094	2,831.3094	0.7084		2,846.1853
Total	**3.3022**	**28.5087**	**19.3714**	**0.0287**		**1.9099**	**1.9099**		**1.7914**	**1.7914**		**2,831.3094**	**2,831.3094**	**0.7084**		**2,846.1853**

3.4 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8196	7.9407	11.1384	0.0212	0.6127	0.1245	0.7372	0.1745	0.1145	0.2890		2,086.0659	2,086.0659	0.0153		2,086.3872
Worker	0.9544	1.2908	13.4805	0.0332	2.7944	0.0225	2.8169	0.7411	0.0207	0.7618		2,682.1147	2,682.1147	0.1407		2,685.0694
Total	**1.7740**	**9.2315**	**24.6189**	**0.0543**	**3.4071**	**0.1470**	**3.5541**	**0.9156**	**0.1353**	**1.0509**		**4,768.1806**	**4,768.1806**	**0.1560**		**4,771.4566**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914	0.0000	2,831.3094	2,831.3094	0.7084		2,846.1853
Total	**3.3022**	**28.5087**	**19.3714**	**0.0287**		**1.9099**	**1.9099**		**1.7914**	**1.7914**	**0.0000**	**2,831.3094**	**2,831.3094**	**0.7084**		**2,846.1853**

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3.4 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8196	7.9407	11.1384	0.0212	0.6127	0.1245	0.7372	0.1745	0.1145	0.2890		2,086.0659	2,086.0659	0.0153		2,086.3872
Worker	0.9544	1.2908	13.4805	0.0332	2.7944	0.0225	2.8169	0.7411	0.0207	0.7618		2,682.1147	2,682.1147	0.1407		2,685.0694
Total	**1.7740**	**9.2315**	**24.6189**	**0.0543**	**3.4071**	**0.1470**	**3.5541**	**0.9156**	**0.1353**	**1.0509**		**4,768.1806**	**4,768.1806**	**0.1560**		**4,771.4566**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023		2,798.2338	2,798.2338	0.6973		2,812.8775
Total	**2.8383**	**25.0811**	**18.7173**	**0.0287**		**1.6002**	**1.6002**		**1.5023**	**1.5023**		**2,798.2338**	**2,798.2338**	**0.6973**		**2,812.8775**

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7662	7.2882	10.6884	0.0211	0.6127	0.1173	0.7300	0.1745	0.1079	0.2824		2,051.0476	2,051.0476	0.0152		2,051.3673
Worker	0.8584	1.1707	12.2000	0.0331	2.7944	0.0219	2.8163	0.7411	0.0203	0.7613		2,581.9629	2,581.9629	0.1306		2,584.7053
Total	**1.6246**	**8.4589**	**22.8884**	**0.0543**	**3.4071**	**0.1392**	**3.5463**	**0.9156**	**0.1282**	**1.0438**		**4,633.0105**	**4,633.0105**	**0.1458**		**4,636.0725**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023	0.0000	2,798.2338	2,798.2338	0.6973		2,812.8775
Total	**2.8383**	**25.0811**	**18.7173**	**0.0287**		**1.6002**	**1.6002**		**1.5023**	**1.5023**	**0.0000**	**2,798.2338**	**2,798.2338**	**0.6973**		**2,812.8775**

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3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7662	7.2882	10.6884	0.0211	0.6127	0.1173	0.7300	0.1745	0.1079	0.2824		2,051.0476	2,051.0476	0.0152		2,051.3673
Worker	0.8584	1.1707	12.2000	0.0331	2.7944	0.0219	2.8163	0.7411	0.0203	0.7613		2,581.9629	2,581.9629	0.1306		2,584.7053
Total	**1.6246**	**8.4589**	**22.8884**	**0.0543**	**3.4071**	**0.1392**	**3.5463**	**0.9156**	**0.1282**	**1.0438**		**4,633.0105**	**4,633.0105**	**0.1458**		**4,636.0725**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	1.2301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8415**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

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3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0702	0.7320	1.9900e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		154.9178	154.9178	7.8400e-003		155.0823
Total	**0.0515**	**0.0702**	**0.7320**	**1.9900e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**154.9178**	**154.9178**	**7.8400e-003**		**155.0823**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	1.2301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8415**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

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3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0702	0.7320	1.9900e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		154.9178	154.9178	7.8400e-003		155.0823
Total	**0.0515**	**0.0702**	**0.7320**	**1.9900e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**154.9178**	**154.9178**	**7.8400e-003**		**155.0823**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.5065					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.7580	13.4954	14.1831	0.0225		0.8803	0.8803		0.8741	0.8741		2,166.1081	2,166.1081	0.3497		2,173.4512
Total	**76.2645**	**13.4954**	**14.1831**	**0.0225**		**0.8803**	**0.8803**		**0.8741**	**0.8741**		**2,166.1081**	**2,166.1081**	**0.3497**		**2,173.4512**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1717	0.2341	2.4400	6.6300e-003	0.5589	4.3800e-003	0.5633	0.1482	4.0500e-003	0.1523		516.3926	516.3926	0.0261		516.9411
Total	**0.1717**	**0.2341**	**2.4400**	**6.6300e-003**	**0.5589**	**4.3800e-003**	**0.5633**	**0.1482**	**4.0500e-003**	**0.1523**		**516.3926**	**516.3926**	**0.0261**		**516.9411**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	74.5065					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.7580	13.4954	14.1831	0.0225		0.8803	0.8803		0.8741	0.8741	0.0000	2,166.1081	2,166.1081	0.3497		2,173.4512
Total	**76.2645**	**13.4954**	**14.1831**	**0.0225**		**0.8803**	**0.8803**		**0.8741**	**0.8741**	**0.0000**	**2,166.1081**	**2,166.1081**	**0.3497**		**2,173.4512**

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3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1717	0.2341	2.4400	6.6300e-003	0.5589	4.3800e-003	0.5633	0.1482	4.0500e-003	0.1523		516.3926	516.3926	0.0261		516.9411
Total	**0.1717**	**0.2341**	**2.4400**	**6.6300e-003**	**0.5589**	**4.3800e-003**	**0.5633**	**0.1482**	**4.0500e-003**	**0.1523**		**516.3926**	**516.3926**	**0.0261**		**516.9411**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Unmitigated	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0000e-005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.1000e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**		**0.1894**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0000e-005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.1000e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**		**0.1894**

7.0 Water Detail

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

Construction-Mitigated

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	372.00	Space	9.39	148,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total lot acreage: 19.64; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Based on a 2018 opening year

Off-road Equipment - Based on a 8 hour workday and past project experience

Off-road Equipment - Based on a 8 hour workday

Off-road Equipment - Off-highway trucks=water trucks; based on past project experience

Off-road Equipment -

Off-road Equipment - Off-highway trucks=water trucks; based on past project experience

Demolition -

Grading -

Architectural Coating - Based on updated Rule 1113- All flat, nonflat, and default coatings should be no more than 50 g/L low VOC level; Interior/Exterior area based on information provided by the architect

Vehicle Trips - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Road Dust - Construction run only

Area Coating - Construction run only

Landscape Equipment - Construction run only

Energy Use - Construction run only

Water And Wastewater - Construction run only

Solid Waste - Construction run only

Construction Off-road Equipment Mitigation - For site preparation and grading phase, all construction equipment greater than 150 HP shall be CARB certified Tier 3

Consumer Products - Construction run only

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	225,407.00	125,820.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	676,221.00	131,376.00

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tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	40.00
tblConsumerProducts	ROG_EF	1.98E-05	1E-10
tblEnergyUse	LightingElect	3.36	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	0.82	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	2.69	0.00
tblEnergyUse	T24E	0.45	0.00
tblEnergyUse	T24NG	16.16	0.00
tblEnergyUse	T24NG	2.11	0.00

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tblGrading	MaterialImported	0.00	3,000.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LotAcreage	3.35	9.39
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	110.69	0.00
tblSolidWaste	SolidWasteGenerationRate	335.66	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00

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tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00

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tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	3.82	0.00
tblVehicleTrips	WD_TR	2.59	0.00
tblWater	IndoorWaterUseRate	20,643,687.50	0.00
tblWater	IndoorWaterUseRate	82,574,750.00	0.00

2.0 Emissions Summary

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	14.4678	166.2941	95.7523	0.1480	25.4842	7.3862	30.0516	13.4444	6.7953	17.6464	0.0000	15,005.3362	15,005.3362	4.2209	0.0000	15,093.9741
2018	16.8280	33.2639	40.8107	0.0853	3.4071	1.7384	5.1454	0.9156	1.6294	2.5450	0.0000	7,620.4131	7,620.4131	0.8427	0.0000	7,638.1089
Total	**31.2958**	**199.5580**	**136.5630**	**0.2333**	**28.8912**	**9.1246**	**35.1970**	**14.3599**	**8.4248**	**20.1914**	**0.0000**	**22,625.7492**	**22,625.7492**	**5.0635**	**0.0000**	**22,732.0830**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	4.9882	66.7767	81.0174	0.1480	10.1434	2.5792	11.8367	5.2975	2.5750	6.9907	0.0000	15,005.3362	15,005.3362	4.2209	0.0000	15,093.9740
2018	16.8280	33.2639	40.8107	0.0853	3.4071	1.7384	5.1454	0.9156	1.6294	2.5450	0.0000	7,620.4130	7,620.4130	0.8427	0.0000	7,638.1089
Total	**21.8162**	**100.0406**	**121.8281**	**0.2333**	**13.5505**	**4.3175**	**16.9821**	**6.2131**	**4.2044**	**9.5357**	**0.0000**	**22,625.7492**	**22,625.7492**	**5.0635**	**0.0000**	**22,732.0830**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**30.29**	**49.87**	**10.79**	**0.00**	**53.10**	**52.68**	**51.75**	**56.73**	**50.09**	**52.77**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**	**0.0000**	**3.0000e-004**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**	**0.0000**	**0.1894**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**	**0.0000**	**3.0000e-004**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**	**0.0000**	**0.1894**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/28/2017	2/10/2017	5	10	
2	Grading	Grading	2/11/2017	3/24/2017	5	30	
3	Building Construction	Building Construction	3/25/2017	5/18/2018	5	300	
4	Paving	Paving	5/19/2018	6/15/2018	5	20	
5	Architectural Coating	Architectural Coating	6/16/2018	8/10/2018	5	40	

Acres of Grading (Site Preparation Phase): 10

Acres of Grading (Grading Phase): 210

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 131,376; Non-Residential Outdoor: 125,820 (Architectural Coating – sqft)

OffRoad Equipment

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	2	8.00	208	0.43
Site Preparation	Excavators	4	8.00	162	0.38
Site Preparation	Off-Highway Trucks	2	8.00	189	0.50
Site Preparation	Rubber Tired Dozers	4	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	208	0.43
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	4	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.50
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	4	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Aerial Lifts	4	8.00	62	0.31
Architectural Coating	Air Compressors	4	8.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	14	35.00	0.00	375.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	250.00	98.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	8	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.1488	0.0000	25.1488	13.3554	0.0000	13.3554			0.0000			0.0000
Off-Road	8.9560	101.5691	64.7844	0.0883		4.5647	4.5647		4.1995	4.1995		9,031.3429	9,031.3429	2.7672		9,089.4538
Total	**8.9560**	**101.5691**	**64.7844**	**0.0883**	**25.1488**	**4.5647**	**29.7136**	**13.3554**	**4.1995**	**17.5550**		**9,031.3429**	**9,031.3429**	**2.7672**		**9,089.4538**

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1123	0.1411	1.7611	4.2500e-003	0.3353	2.7000e-003	0.3380	0.0889	2.4900e-003	0.0914		343.2173	343.2173	0.0169		343.5718
Total	**0.1123**	**0.1411**	**1.7611**	**4.2500e-003**	**0.3353**	**2.7000e-003**	**0.3380**	**0.0889**	**2.4900e-003**	**0.0914**		**343.2173**	**343.2173**	**0.0169**		**343.5718**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.8081	0.0000	9.8081	5.2086	0.0000	5.2086			0.0000			0.0000
Off-Road	2.1633	41.8229	51.6477	0.0883		1.6906	1.6906		1.6906	1.6906	0.0000	9,031.3429	9,031.3429	2.7672		9,089.4538
Total	**2.1633**	**41.8229**	**51.6477**	**0.0883**	**9.8081**	**1.6906**	**11.4987**	**5.2086**	**1.6906**	**6.8992**	**0.0000**	**9,031.3429**	**9,031.3429**	**2.7672**		**9,089.4538**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1123	0.1411	1.7611	4.2500e-003	0.3353	2.7000e-003	0.3380	0.0889	2.4900e-003	0.0914		343.2173	343.2173	0.0169		343.5718
Total	**0.1123**	**0.1411**	**1.7611**	**4.2500e-003**	**0.3353**	**2.7000e-003**	**0.3380**	**0.0889**	**2.4900e-003**	**0.0914**		**343.2173**	**343.2173**	**0.0169**		**343.5718**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.4790	0.0000	19.4790	7.4237	0.0000	7.4237			0.0000			0.0000
Off-Road	14.1331	162.9547	91.3647	0.1338		7.3341	7.3341		6.7474	6.7474		13,690.0949	13,690.0949	4.1946		13,778.1819
Total	**14.1331**	**162.9547**	**91.3647**	**0.1338**	**19.4790**	**7.3341**	**26.8131**	**7.4237**	**6.7474**	**14.1711**		**13,690.0949**	**13,690.0949**	**4.1946**		**13,778.1819**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2037	3.1748	2.3330	9.2200e-003	0.2178	0.0490	0.2668	0.0596	0.0451	0.1047		914.8212	914.8212	6.5300e-003		914.9584
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1310	0.1646	2.0546	4.9600e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		400.4201	400.4201	0.0197		400.8338
Total	**0.3347**	**3.3394**	**4.3877**	**0.0142**	**0.6090**	**0.0521**	**0.6611**	**0.1634**	**0.0480**	**0.2114**		**1,315.2413**	**1,315.2413**	**0.0262**		**1,315.7922**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.5968	0.0000	7.5968	2.8953	0.0000	2.8953			0.0000			0.0000
Off-Road	3.2812	63.4373	76.6297	0.1338		2.5270	2.5270		2.5270	2.5270	0.0000	13,690.0949	13,690.0949	4.1946		13,778.1819
Total	**3.2812**	**63.4373**	**76.6297**	**0.1338**	**7.5968**	**2.5270**	**10.1238**	**2.8953**	**2.5270**	**5.4223**	**0.0000**	**13,690.0949**	**13,690.0949**	**4.1946**		**13,778.1819**

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2037	3.1748	2.3330	9.2200e-003	0.2178	0.0490	0.2668	0.0596	0.0451	0.1047		914.8212	914.8212	6.5300e-003		914.9584
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1310	0.1646	2.0546	4.9600e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		400.4201	400.4201	0.0197		400.8338
Total	**0.3347**	**3.3394**	**4.3877**	**0.0142**	**0.6090**	**0.0521**	**0.6611**	**0.1634**	**0.0480**	**0.2114**		**1,315.2413**	**1,315.2413**	**0.0262**		**1,315.7922**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914		2,831.3094	2,831.3094	0.7084		2,846.1853
Total	**3.3022**	**28.5087**	**19.3714**	**0.0287**		**1.9099**	**1.9099**		**1.7914**	**1.7914**		**2,831.3094**	**2,831.3094**	**0.7084**		**2,846.1853**

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3.4 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7504	7.7495	9.1933	0.0213	0.6127	0.1233	0.7360	0.1745	0.1134	0.2879		2,103.7382	2,103.7382	0.0148		2,104.0497
Worker	0.9356	1.1754	14.6759	0.0354	2.7944	0.0225	2.8169	0.7411	0.0207	0.7618		2,860.1438	2,860.1438	0.1407		2,863.0986
Total	**1.6860**	**8.9249**	**23.8692**	**0.0567**	**3.4071**	**0.1458**	**3.5529**	**0.9156**	**0.1342**	**1.0497**		**4,963.8820**	**4,963.8820**	**0.1555**		**4,967.1483**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914	0.0000	2,831.3094	2,831.3094	0.7084		2,846.1853
Total	**3.3022**	**28.5087**	**19.3714**	**0.0287**		**1.9099**	**1.9099**		**1.7914**	**1.7914**	**0.0000**	**2,831.3094**	**2,831.3094**	**0.7084**		**2,846.1853**

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3.4 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7504	7.7495	9.1933	0.0213	0.6127	0.1233	0.7360	0.1745	0.1134	0.2879		2,103.7382	2,103.7382	0.0148		2,104.0497
Worker	0.9356	1.1754	14.6759	0.0354	2.7944	0.0225	2.8169	0.7411	0.0207	0.7618		2,860.1438	2,860.1438	0.1407		2,863.0986
Total	**1.6860**	**8.9249**	**23.8692**	**0.0567**	**3.4071**	**0.1458**	**3.5529**	**0.9156**	**0.1342**	**1.0497**		**4,963.8820**	**4,963.8820**	**0.1555**		**4,967.1483**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023		2,798.2338	2,798.2338	0.6973		2,812.8775
Total	**2.8383**	**25.0811**	**18.7173**	**0.0287**		**1.6002**	**1.6002**		**1.5023**	**1.5023**		**2,798.2338**	**2,798.2338**	**0.6973**		**2,812.8775**

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7039	7.1164	8.7589	0.0213	0.6127	0.1162	0.7289	0.1745	0.1069	0.2814		2,068.4603	2,068.4603	0.0148		2,068.7700
Worker	0.8435	1.0663	13.3345	0.0354	2.7944	0.0219	2.8163	0.7411	0.0203	0.7613		2,753.7189	2,753.7189	0.1306		2,756.4614
Total	**1.5474**	**8.1827**	**22.0934**	**0.0567**	**3.4071**	**0.1381**	**3.5452**	**0.9156**	**0.1272**	**1.0428**		**4,822.1793**	**4,822.1793**	**0.1453**		**4,825.2314**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023	0.0000	2,798.2338	2,798.2338	0.6973		2,812.8775
Total	**2.8383**	**25.0811**	**18.7173**	**0.0287**		**1.6002**	**1.6002**		**1.5023**	**1.5023**	**0.0000**	**2,798.2338**	**2,798.2338**	**0.6973**		**2,812.8775**

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3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7039	7.1164	8.7589	0.0213	0.6127	0.1162	0.7289	0.1745	0.1069	0.2814		2,068.4603	2,068.4603	0.0148		2,068.7700
Worker	0.8435	1.0663	13.3345	0.0354	2.7944	0.0219	2.8163	0.7411	0.0203	0.7613		2,753.7189	2,753.7189	0.1306		2,756.4614
Total	**1.5474**	**8.1827**	**22.0934**	**0.0567**	**3.4071**	**0.1381**	**3.5452**	**0.9156**	**0.1272**	**1.0428**		**4,822.1793**	**4,822.1793**	**0.1453**		**4,825.2314**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	1.2301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8415**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

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3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0506	0.0640	0.8001	2.1200e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		165.2231	165.2231	7.8400e-003		165.3877
Total	**0.0506**	**0.0640**	**0.8001**	**2.1200e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**165.2231**	**165.2231**	**7.8400e-003**		**165.3877**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	1.2301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8415**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

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3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0506	0.0640	0.8001	2.1200e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		165.2231	165.2231	7.8400e-003		165.3877
Total	**0.0506**	**0.0640**	**0.8001**	**2.1200e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**165.2231**	**165.2231**	**7.8400e-003**		**165.3877**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.9013					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.7580	13.4954	14.1831	0.0225		0.8803	0.8803		0.8741	0.8741		2,166.1081	2,166.1081	0.3497		2,173.4512
Total	**16.6593**	**13.4954**	**14.1831**	**0.0225**		**0.8803**	**0.8803**		**0.8741**	**0.8741**		**2,166.1081**	**2,166.1081**	**0.3497**		**2,173.4512**

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3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1687	0.2133	2.6669	7.0800e-003	0.5589	4.3800e-003	0.5633	0.1482	4.0500e-003	0.1523		550.7438	550.7438	0.0261		551.2923
Total	**0.1687**	**0.2133**	**2.6669**	**7.0800e-003**	**0.5589**	**4.3800e-003**	**0.5633**	**0.1482**	**4.0500e-003**	**0.1523**		**550.7438**	**550.7438**	**0.0261**		**551.2923**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.9013					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.7580	13.4954	14.1831	0.0225		0.8803	0.8803		0.8741	0.8741	0.0000	2,166.1081	2,166.1081	0.3497		2,173.4512
Total	**16.6593**	**13.4954**	**14.1831**	**0.0225**		**0.8803**	**0.8803**		**0.8741**	**0.8741**	**0.0000**	**2,166.1081**	**2,166.1081**	**0.3497**		**2,173.4512**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1687	0.2133	2.6669	7.0800e-003	0.5589	4.3800e-003	0.5633	0.1482	4.0500e-003	0.1523		550.7438	550.7438	0.0261		551.2923
Total	**0.1687**	**0.2133**	**2.6669**	**7.0800e-003**	**0.5589**	**4.3800e-003**	**0.5633**	**0.1482**	**4.0500e-003**	**0.1523**		**550.7438**	**550.7438**	**0.0261**		**551.2923**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Unmitigated	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0000e-005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.1000e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**		**0.1894**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0000e-005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.1000e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**		**0.1894**

7.0 Water Detail

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

Construction-Mitigated

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	372.00	Space	9.39	148,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total lot acreage: 19.64; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Based on a 2018 opening year

Off-road Equipment - Based on a 8 hour workday and past project experience

Off-road Equipment - Based on a 8 hour workday

Off-road Equipment - Off-highway trucks=water trucks; based on past project experience

Off-road Equipment -

Off-road Equipment - Off-highway trucks=water trucks; based on past project experience

Demolition -

Grading -

Architectural Coating - Based on updated Rule 1113- All flat, nonflat, and default coatings should be no more than 50 g/L low VOC level; Interior/Exterior area based on information provided by the architect

Vehicle Trips - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Road Dust - Construction run only

Area Coating - Construction run only

Landscape Equipment - Construction run only

Energy Use - Construction run only

Water And Wastewater - Construction run only

Solid Waste - Construction run only

Construction Off-road Equipment Mitigation - For site preparation and grading phase, all construction equipment greater than 150 HP shall be CARB certified Tier 3

Consumer Products - Construction run only

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	225,407.00	125,820.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	676,221.00	131,376.00

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tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	40.00
tblConsumerProducts	ROG_EF	1.98E-05	1E-10
tblEnergyUse	LightingElect	3.36	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	0.82	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	2.69	0.00
tblEnergyUse	T24E	0.45	0.00
tblEnergyUse	T24NG	16.16	0.00
tblEnergyUse	T24NG	2.11	0.00

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tblGrading	MaterialImported	0.00	3,000.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LotAcreage	3.35	9.39
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	110.69	0.00
tblSolidWaste	SolidWasteGenerationRate	335.66	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00

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tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00

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tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	3.82	0.00
tblVehicleTrips	WD_TR	2.59	0.00
tblWater	IndoorWaterUseRate	20,643,687.50	0.00
tblWater	IndoorWaterUseRate	82,574,750.00	0.00

2.0 Emissions Summary

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

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2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	14.4810	166.4250	95.9421	0.1476	25.4842	7.3863	30.0516	13.4444	6.7954	17.6464	0.0000	14,978.2378	14,978.2378	4.2209	0.0000	15,066.8775
2018	16.8310	33.5401	41.6058	0.0829	3.4071	1.7395	5.1465	0.9156	1.6305	2.5460	0.0000	7,431.2442	7,431.2442	0.8431	0.0000	7,448.9501
Total	**31.3120**	**199.9651**	**137.5479**	**0.2306**	**28.8912**	**9.1258**	**35.1981**	**14.3599**	**8.4259**	**20.1924**	**0.0000**	**22,409.4820**	**22,409.4820**	**5.0641**	**0.0000**	**22,515.8276**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	5.0761	66.9076	81.2072	0.1476	10.1434	2.5793	11.8367	5.2975	2.5751	6.9907	0.0000	14,978.2377	14,978.2377	4.2209	0.0000	15,066.8775
2018	16.8310	33.5401	41.6058	0.0829	3.4071	1.7395	5.1465	0.9156	1.6305	2.5460	0.0000	7,431.2442	7,431.2442	0.8431	0.0000	7,448.9501
Total	**21.9071**	**100.4477**	**122.8129**	**0.2306**	**13.5505**	**4.3187**	**16.9832**	**6.2131**	**4.2055**	**9.5367**	**0.0000**	**22,409.4820**	**22,409.4820**	**5.0641**	**0.0000**	**22,515.8276**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**30.04**	**49.77**	**10.71**	**0.00**	**53.10**	**52.68**	**51.75**	**56.73**	**50.09**	**52.77**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**	**0.0000**	**3.0000e-004**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**	**0.0000**	**0.1894**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**	**0.0000**	**3.0000e-004**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**	**0.0000**	**0.1894**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/28/2017	2/10/2017	5	10	
2	Grading	Grading	2/11/2017	3/24/2017	5	30	
3	Building Construction	Building Construction	3/25/2017	5/18/2018	5	300	
4	Paving	Paving	5/19/2018	6/15/2018	5	20	
5	Architectural Coating	Architectural Coating	6/16/2018	8/10/2018	5	40	

Acres of Grading (Site Preparation Phase): 10

Acres of Grading (Grading Phase): 210

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 131,376; Non-Residential Outdoor: 125,820 (Architectural Coating – sqft)

OffRoad Equipment

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	2	8.00	208	0.43
Site Preparation	Excavators	4	8.00	162	0.38
Site Preparation	Off-Highway Trucks	2	8.00	189	0.50
Site Preparation	Rubber Tired Dozers	4	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	208	0.43
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	4	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.50
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	4	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Aerial Lifts	4	8.00	62	0.31
Architectural Coating	Air Compressors	4	8.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	14	35.00	0.00	375.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	250.00	98.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	8	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					25.1488	0.0000	25.1488	13.3554	0.0000	13.3554			0.0000			0.0000
Off-Road	8.9560	101.5691	64.7844	0.0883		4.5647	4.5647		4.1995	4.1995		9,031.3429	9,031.3429	2.7672		9,089.4538
Total	**8.9560**	**101.5691**	**64.7844**	**0.0883**	**25.1488**	**4.5647**	**29.7136**	**13.3554**	**4.1995**	**17.5550**		**9,031.3429**	**9,031.3429**	**2.7672**		**9,089.4538**

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1145	0.1549	1.6177	3.9800e-003	0.3353	2.7000e-003	0.3380	0.0889	2.4900e-003	0.0914		321.8538	321.8538	0.0169		322.2083
Total	**0.1145**	**0.1549**	**1.6177**	**3.9800e-003**	**0.3353**	**2.7000e-003**	**0.3380**	**0.0889**	**2.4900e-003**	**0.0914**		**321.8538**	**321.8538**	**0.0169**		**322.2083**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.8081	0.0000	9.8081	5.2086	0.0000	5.2086			0.0000			0.0000
Off-Road	2.1633	41.8229	51.6477	0.0883		1.6906	1.6906		1.6906	1.6906	0.0000	9,031.3429	9,031.3429	2.7672		9,089.4538
Total	**2.1633**	**41.8229**	**51.6477**	**0.0883**	**9.8081**	**1.6906**	**11.4987**	**5.2086**	**1.6906**	**6.8992**	**0.0000**	**9,031.3429**	**9,031.3429**	**2.7672**		**9,089.4538**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1145	0.1549	1.6177	3.9800e-003	0.3353	2.7000e-003	0.3380	0.0889	2.4900e-003	0.0914		321.8538	321.8538	0.0169		322.2083
Total	**0.1145**	**0.1549**	**1.6177**	**3.9800e-003**	**0.3353**	**2.7000e-003**	**0.3380**	**0.0889**	**2.4900e-003**	**0.0914**		**321.8538**	**321.8538**	**0.0169**		**322.2083**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.4790	0.0000	19.4790	7.4237	0.0000	7.4237			0.0000			0.0000
Off-Road	14.1331	162.9547	91.3647	0.1338		7.3341	7.3341		6.7474	6.7474		13,690.0949	13,690.0949	4.1946		13,778.1819
Total	**14.1331**	**162.9547**	**91.3647**	**0.1338**	**19.4790**	**7.3341**	**26.8131**	**7.4237**	**6.7474**	**14.1711**		**13,690.0949**	**13,690.0949**	**4.1946**		**13,778.1819**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2143	3.2896	2.6902	9.2000e-003	0.2178	0.0491	0.2669	0.0596	0.0452	0.1048		912.6468	912.6468	6.6200e-003		912.7859
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1336	0.1807	1.8873	4.6400e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		375.4961	375.4961	0.0197		375.9097
Total	**0.3479**	**3.4703**	**4.5775**	**0.0138**	**0.6090**	**0.0522**	**0.6612**	**0.1634**	**0.0481**	**0.2115**		**1,288.1429**	**1,288.1429**	**0.0263**		**1,288.6956**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.5968	0.0000	7.5968	2.8953	0.0000	2.8953			0.0000			0.0000
Off-Road	3.2812	63.4373	76.6297	0.1338		2.5270	2.5270		2.5270	2.5270	0.0000	13,690.0949	13,690.0949	4.1946		13,778.1819
Total	**3.2812**	**63.4373**	**76.6297**	**0.1338**	**7.5968**	**2.5270**	**10.1238**	**2.8953**	**2.5270**	**5.4223**	**0.0000**	**13,690.0949**	**13,690.0949**	**4.1946**		**13,778.1819**

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2143	3.2896	2.6902	9.2000e-003	0.2178	0.0491	0.2669	0.0596	0.0452	0.1048		912.6468	912.6468	6.6200e-003		912.7859
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1336	0.1807	1.8873	4.6400e-003	0.3912	3.1500e-003	0.3944	0.1038	2.9000e-003	0.1067		375.4961	375.4961	0.0197		375.9097
Total	**0.3479**	**3.4703**	**4.5775**	**0.0138**	**0.6090**	**0.0522**	**0.6612**	**0.1634**	**0.0481**	**0.2115**		**1,288.1429**	**1,288.1429**	**0.0263**		**1,288.6956**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914		2,831.3094	2,831.3094	0.7084		2,846.1853
Total	**3.3022**	**28.5087**	**19.3714**	**0.0287**		**1.9099**	**1.9099**		**1.7914**	**1.7914**		**2,831.3094**	**2,831.3094**	**0.7084**		**2,846.1853**

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3.4 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8196	7.9407	11.1384	0.0212	0.6127	0.1245	0.7372	0.1745	0.1145	0.2890		2,086.0659	2,086.0659	0.0153		2,086.3872
Worker	0.9544	1.2908	13.4805	0.0332	2.7944	0.0225	2.8169	0.7411	0.0207	0.7618		2,682.1147	2,682.1147	0.1407		2,685.0694
Total	**1.7740**	**9.2315**	**24.6189**	**0.0543**	**3.4071**	**0.1470**	**3.5541**	**0.9156**	**0.1353**	**1.0509**		**4,768.1806**	**4,768.1806**	**0.1560**		**4,771.4566**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3022	28.5087	19.3714	0.0287		1.9099	1.9099		1.7914	1.7914	0.0000	2,831.3094	2,831.3094	0.7084		2,846.1853
Total	**3.3022**	**28.5087**	**19.3714**	**0.0287**		**1.9099**	**1.9099**		**1.7914**	**1.7914**	**0.0000**	**2,831.3094**	**2,831.3094**	**0.7084**		**2,846.1853**

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3.4 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.8196	7.9407	11.1384	0.0212	0.6127	0.1245	0.7372	0.1745	0.1145	0.2890		2,086.0659	2,086.0659	0.0153		2,086.3872
Worker	0.9544	1.2908	13.4805	0.0332	2.7944	0.0225	2.8169	0.7411	0.0207	0.7618		2,682.1147	2,682.1147	0.1407		2,685.0694
Total	**1.7740**	**9.2315**	**24.6189**	**0.0543**	**3.4071**	**0.1470**	**3.5541**	**0.9156**	**0.1353**	**1.0509**		**4,768.1806**	**4,768.1806**	**0.1560**		**4,771.4566**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023		2,798.2338	2,798.2338	0.6973		2,812.8775
Total	**2.8383**	**25.0811**	**18.7173**	**0.0287**		**1.6002**	**1.6002**		**1.5023**	**1.5023**		**2,798.2338**	**2,798.2338**	**0.6973**		**2,812.8775**

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3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7662	7.2882	10.6884	0.0211	0.6127	0.1173	0.7300	0.1745	0.1079	0.2824		2,051.0476	2,051.0476	0.0152		2,051.3673
Worker	0.8584	1.1707	12.2000	0.0331	2.7944	0.0219	2.8163	0.7411	0.0203	0.7613		2,581.9629	2,581.9629	0.1306		2,584.7053
Total	**1.6246**	**8.4589**	**22.8884**	**0.0543**	**3.4071**	**0.1392**	**3.5463**	**0.9156**	**0.1282**	**1.0438**		**4,633.0105**	**4,633.0105**	**0.1458**		**4,636.0725**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8383	25.0811	18.7173	0.0287		1.6002	1.6002		1.5023	1.5023	0.0000	2,798.2338	2,798.2338	0.6973		2,812.8775
Total	**2.8383**	**25.0811**	**18.7173**	**0.0287**		**1.6002**	**1.6002**		**1.5023**	**1.5023**	**0.0000**	**2,798.2338**	**2,798.2338**	**0.6973**		**2,812.8775**

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3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7662	7.2882	10.6884	0.0211	0.6127	0.1173	0.7300	0.1745	0.1079	0.2824		2,051.0476	2,051.0476	0.0152		2,051.3673
Worker	0.8584	1.1707	12.2000	0.0331	2.7944	0.0219	2.8163	0.7411	0.0203	0.7613		2,581.9629	2,581.9629	0.1306		2,584.7053
Total	**1.6246**	**8.4589**	**22.8884**	**0.0543**	**3.4071**	**0.1392**	**3.5463**	**0.9156**	**0.1282**	**1.0438**		**4,633.0105**	**4,633.0105**	**0.1458**		**4,636.0725**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635		2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	1.2301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8415**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**		**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

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3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0702	0.7320	1.9900e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		154.9178	154.9178	7.8400e-003		155.0823
Total	**0.0515**	**0.0702**	**0.7320**	**1.9900e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**154.9178**	**154.9178**	**7.8400e-003**		**155.0823**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6114	17.1628	14.4944	0.0223		0.9386	0.9386		0.8635	0.8635	0.0000	2,245.2695	2,245.2695	0.6990		2,259.9481
Paving	1.2301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.8415**	**17.1628**	**14.4944**	**0.0223**		**0.9386**	**0.9386**		**0.8635**	**0.8635**	**0.0000**	**2,245.2695**	**2,245.2695**	**0.6990**		**2,259.9481**

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3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0515	0.0702	0.7320	1.9900e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		154.9178	154.9178	7.8400e-003		155.0823
Total	**0.0515**	**0.0702**	**0.7320**	**1.9900e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**154.9178**	**154.9178**	**7.8400e-003**		**155.0823**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.9013					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.7580	13.4954	14.1831	0.0225		0.8803	0.8803		0.8741	0.8741		2,166.1081	2,166.1081	0.3497		2,173.4512
Total	**16.6593**	**13.4954**	**14.1831**	**0.0225**		**0.8803**	**0.8803**		**0.8741**	**0.8741**		**2,166.1081**	**2,166.1081**	**0.3497**		**2,173.4512**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1717	0.2341	2.4400	6.6300e-003	0.5589	4.3800e-003	0.5633	0.1482	4.0500e-003	0.1523		516.3926	516.3926	0.0261		516.9411
Total	**0.1717**	**0.2341**	**2.4400**	**6.6300e-003**	**0.5589**	**4.3800e-003**	**0.5633**	**0.1482**	**4.0500e-003**	**0.1523**		**516.3926**	**516.3926**	**0.0261**		**516.9411**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.9013					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.7580	13.4954	14.1831	0.0225		0.8803	0.8803		0.8741	0.8741	0.0000	2,166.1081	2,166.1081	0.3497		2,173.4512
Total	**16.6593**	**13.4954**	**14.1831**	**0.0225**		**0.8803**	**0.8803**		**0.8741**	**0.8741**	**0.0000**	**2,166.1081**	**2,166.1081**	**0.3497**		**2,173.4512**

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3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1717	0.2341	2.4400	6.6300e-003	0.5589	4.3800e-003	0.5633	0.1482	4.0500e-003	0.1523		516.3926	516.3926	0.0261		516.9411
Total	**0.1717**	**0.2341**	**2.4400**	**6.6300e-003**	**0.5589**	**4.3800e-003**	**0.5633**	**0.1482**	**4.0500e-003**	**0.1523**		**516.3926**	**516.3926**	**0.0261**		**516.9411**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Unmitigated	8.1600e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0000e-005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.1000e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**		**0.1894**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0000e-005					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.1000e-003	7.9000e-004	0.0847	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004		0.1791	0.1791	4.9000e-004		0.1894
Total	**8.1600e-003**	**7.9000e-004**	**0.0847**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**		**0.1791**	**0.1791**	**4.9000e-004**		**0.1894**

7.0 Water Detail

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7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

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High Cube- Trucks

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total lot acreage: 19.6437; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Area Mitigation - Based on updated Rule 1113- All flat, nonflat, and default coatings shall be no more than 50 g/L low VOC level

Energy Mitigation - PV system to serve office area (80% of total project kWh)

Water Mitigation -

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	2.11	1.76
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00

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tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.37
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00

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tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64

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2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.7267	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Energy	0.0189	0.1717	0.1442	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.0188	206.0188	3.9500e-003	3.7800e-003	207.2726
Mobile	6.7285	113.9052	61.8714	0.3972	12.0208	2.0203	14.0411	3.3274	1.8587	5.1861		38,696.6876	38,696.6876	0.3243		38,703.4972
Offroad	0.3365	4.4970	1.6144	6.3200e-003		0.1451	0.1451		0.1335	0.1335		636.2174	636.2174	0.1981		640.3767
Total	**18.8106**	**118.5745**	**63.6978**	**0.4046**	**12.0208**	**2.1787**	**14.1995**	**3.3274**	**2.0054**	**5.3328**		**39,539.0671**	**39,539.0671**	**0.5267**	**3.7800e-003**	**39,551.2981**

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.8948	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Energy	0.0180	0.1632	0.1371	9.8000e-004		0.0124	0.0124		0.0124	0.0124		195.8905	195.8905	3.7500e-003	3.5900e-003	197.0826
Mobile	6.6130	111.6919	60.9584	0.3893	11.7804	1.9800	13.7604	3.2609	1.8216	5.0824		37,927.9323	37,927.9323	0.3180		37,934.6100
Offroad	0.3365	4.4970	1.6144	6.3200e-003		0.1451	0.1451		0.1335	0.1335		636.2174	636.2174	0.1981		640.3767
Total	**16.8623**	**116.3527**	**62.7777**	**0.3966**	**11.7804**	**2.1378**	**13.9181**	**3.2609**	**1.9677**	**5.2286**		**38,760.1835**	**38,760.1835**	**0.5202**	**3.5900e-003**	**38,772.2210**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**12.15**	**5.67**	**3.98**	**3.52**	**2.00**	**8.54**	**3.00**	**2.00**	**8.54**	**4.46**	**0.00**	**3.58**	**3.58**	**38.84**	**5.03**	**3.59**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

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Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	6.7285	113.9052	61.8714	0.3972	12.0208	2.0203	14.0411	3.3274	1.8587	5.1861		38,696.6876	38,696.6876	0.3243		38,703.4972
Mitigated	6.6130	111.6919	60.9584	0.3893	11.7804	1.9800	13.7604	3.2609	1.8216	5.0824		37,927.9323	37,927.9323	0.3180		37,934.6100

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	228.53	228.53	228.53	5,074,307	4,972,821
Total	228.53	228.53	228.53	5,074,307	4,972,821

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.220300	0.000000	0.176600	0.603100	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

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5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Unmitigated	0.0189	0.1717	0.1442	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.0188	206.0188	3.9500e-003	3.7800e-003	207.2726
NaturalGas Mitigated	0.0180	0.1632	0.1371	9.8000e-004		0.0124	0.0124		0.0124	0.0124		195.8905	195.8905	3.7500e-003	3.5900e-003	197.0826

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	1751.16	0.0189	0.1717	0.1442	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.0188	206.0188	3.9500e-003	3.7800e-003	207.2726
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0189**	**0.1717**	**0.1442**	**1.0300e-003**		**0.0131**	**0.0131**		**0.0131**	**0.0131**		**206.0188**	**206.0188**	**3.9500e-003**	**3.7800e-003**	**207.2726**

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1.66507	0.0180	0.1632	0.1371	9.8000e-004		0.0124	0.0124		0.0124	0.0124		195.8905	195.8905	3.7500e-003	3.5900e-003	197.0826
Total		**0.0180**	**0.1632**	**0.1371**	**9.8000e-004**		**0.0124**	**0.0124**		**0.0124**	**0.0124**		**195.8905**	**195.8905**	**3.7500e-003**	**3.5900e-003**	**197.0826**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	11.7267	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Mitigated	9.8948	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2899					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.4303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4800e-003	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Total	**11.7267**	**6.3000e-004**	**0.0678**	**0.0000**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1434**	**0.1434**	**3.9000e-004**		**0.1516**

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.4303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4800e-003	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Total	**9.8948**	**6.3000e-004**	**0.0678**	**0.0000**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1434**	**0.1434**	**3.9000e-004**		**0.1516**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Tractors/Loaders/ Backhoes	0.3365	4.4970	1.6144	6.3200e-003		0.1451	0.1451		0.1335	0.1335		636.2174	636.2174	0.1981		640.3767
Total	**0.3365**	**4.4970**	**1.6144**	**6.3200e-003**		**0.1451**	**0.1451**		**0.1335**	**0.1335**		**636.2174**	**636.2174**	**0.1981**		**640.3767**

10.0 Vegetation

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High Cube- Trucks

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total lot acreage: 19.6437; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Area Mitigation - Based on updated Rule 1113- All flat, nonflat, and default coatings shall be no more than 50 g/L low VOC level

Energy Mitigation - PV system to serve office area (80% of total project kWh)

Water Mitigation -

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	2.11	1.76
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00

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tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.37
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00

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tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64

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2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.7267	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Energy	0.0189	0.1717	0.1442	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.0188	206.0188	3.9500e-003	3.7800e-003	207.2726
Mobile	6.8450	118.4819	65.9596	0.3970	12.0208	2.0220	14.0428	3.3274	1.8602	5.1876		38,665.6638	38,665.6638	0.3254		38,672.4968
Offroad	0.3365	4.4970	1.6144	6.3200e-003		0.1451	0.1451		0.1335	0.1335		636.2174	636.2174	0.1981		640.3767
Total	**18.9271**	**123.1512**	**67.7860**	**0.4043**	**12.0208**	**2.1804**	**14.2012**	**3.3274**	**2.0070**	**5.3344**		**39,508.0433**	**39,508.0433**	**0.5278**	**3.7800e-003**	**39,520.2977**

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.8948	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Energy	0.0180	0.1632	0.1371	9.8000e-004		0.0124	0.0124		0.0124	0.0124		195.8905	195.8905	3.7500e-003	3.5900e-003	197.0826
Mobile	6.7300	116.1756	65.0561	0.3891	11.7804	1.9817	13.7621	3.2609	1.8232	5.0840		37,896.9084	37,896.9084	0.3191		37,903.6097
Offroad	0.3365	4.4970	1.6144	6.3200e-003		0.1451	0.1451		0.1335	0.1335		636.2174	636.2174	0.1981		640.3767
Total	**16.9793**	**120.8365**	**66.8753**	**0.3964**	**11.7804**	**2.1395**	**13.9199**	**3.2609**	**1.9693**	**5.2302**		**38,729.1597**	**38,729.1597**	**0.5213**	**3.5900e-003**	**38,741.2207**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**12.07**	**5.53**	**3.72**	**3.53**	**2.00**	**8.53**	**3.00**	**2.00**	**8.53**	**4.46**	**0.00**	**3.58**	**3.58**	**38.75**	**5.03**	**3.59**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	6.8450	118.4819	65.9596	0.3970	12.0208	2.0220	14.0428	3.3274	1.8602	5.1876		38,665.6638	38,665.6638	0.3254		38,672.4968
Mitigated	6.7300	116.1756	65.0561	0.3891	11.7804	1.9817	13.7621	3.2609	1.8232	5.0840		37,896.9084	37,896.9084	0.3191		37,903.6097

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	228.53	228.53	228.53	5,074,307	4,972,821
Total	228.53	228.53	228.53	5,074,307	4,972,821

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.220300	0.000000	0.176600	0.603100	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Unmitigated	0.0189	0.1717	0.1442	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.0188	206.0188	3.9500e-003	3.7800e-003	207.2726
NaturalGas Mitigated	0.0180	0.1632	0.1371	9.8000e-004		0.0124	0.0124		0.0124	0.0124		195.8905	195.8905	3.7500e-003	3.5900e-003	197.0826

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	1751.16	0.0189	0.1717	0.1442	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.0188	206.0188	3.9500e-003	3.7800e-003	207.2726
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0189**	**0.1717**	**0.1442**	**1.0300e-003**		**0.0131**	**0.0131**		**0.0131**	**0.0131**		**206.0188**	**206.0188**	**3.9500e-003**	**3.7800e-003**	**207.2726**

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	1.66507	0.0180	0.1632	0.1371	9.8000e-004		0.0124	0.0124		0.0124	0.0124		195.8905	195.8905	3.7500e-003	3.5900e-003	197.0826
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0180**	**0.1632**	**0.1371**	**9.8000e-004**		**0.0124**	**0.0124**		**0.0124**	**0.0124**		**195.8905**	**195.8905**	**3.7500e-003**	**3.5900e-003**	**197.0826**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	11.7267	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Mitigated	9.8948	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2899					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.4303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4800e-003	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Total	**11.7267**	**6.3000e-004**	**0.0678**	**0.0000**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1434**	**0.1434**	**3.9000e-004**		**0.1516**

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.4303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4800e-003	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Total	**9.8948**	**6.3000e-004**	**0.0678**	**0.0000**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1434**	**0.1434**	**3.9000e-004**		**0.1516**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Tractors/Loaders/ Backhoes	0.3365	4.4970	1.6144	6.3200e-003		0.1451	0.1451		0.1335	0.1335		636.2174	636.2174	0.1981		640.3767
Total	**0.3365**	**4.4970**	**1.6144**	**6.3200e-003**		**0.1451**	**0.1451**		**0.1335**	**0.1335**		**636.2174**	**636.2174**	**0.1981**		**640.3767**

10.0 Vegetation

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High Cube- Passenger Cars

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total lot acreage: 19.6437; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Area Mitigation - Based on updated Rule 1113- All flat, nonflat, and default coatings shall be no more than 50 g/L low VOC level

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Mobile Land Use Mitigation -

Energy Mitigation - PV system to serve office area (80% of total project kWh)

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	2.11	1.76
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00

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tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.37
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00

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tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04

2.0 Emissions Summary

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2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Area	11.7267	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Energy	0.0189	0.1717	0.1442	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.0188	206.0188	3.9500e-003	3.7800e-003	207.2726
Mobile	0.7766	1.0628	14.5615	0.0522	4.6834	0.0283	4.7117	1.2415	0.0262	1.2677		3,929.9182	3,929.9182	0.1562		3,933.1993
Offroad	0.3365	4.4970	1.6144	6.3200e-003		0.1451	0.1451		0.1335	0.1335		636.2174	636.2174	0.1981		640.3767
Total	**12.8587**	**5.7322**	**16.3878**	**0.0595**	**4.6834**	**0.1867**	**4.8701**	**1.2415**	**0.1730**	**1.4145**		**4,772.2977**	**4,772.2977**	**0.3586**	**3.7800e-003**	**4,781.0001**

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.8948	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Energy	0.0180	0.1632	0.1371	9.8000e-004		0.0124	0.0124		0.0124	0.0124		195.8905	195.8905	3.7500e-003	3.5900e-003	197.0826
Mobile	0.7708	1.0432	14.2918	0.0512	4.5897	0.0278	4.6175	1.2167	0.0257	1.2424		3,852.2630	3,852.2630	0.1532		3,855.4808
Offroad	0.3365	4.4970	1.6144	6.3200e-003		0.1451	0.1451		0.1335	0.1335		636.2174	636.2174	0.1981		640.3767
Total	**11.0201**	**5.7041**	**16.1111**	**0.0585**	**4.5897**	**0.1856**	**4.7753**	**1.2167**	**0.1719**	**1.3885**		**4,684.5142**	**4,684.5142**	**0.3554**	**3.5900e-003**	**4,693.0918**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**16.92**	**78.94**	**11.54**	**12.43**	**2.00**	**78.33**	**4.93**	**2.00**	**77.82**	**11.27**	**0.00**	**15.17**	**15.17**	**56.12**	**5.03**	**15.23**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	0.7766	1.0628	14.5615	0.0522	4.6834	0.0283	4.7117	1.2415	0.0262	1.2677		3,929.9182	3,929.9182	0.1562		3,933.1993
Mitigated	0.7708	1.0432	14.2918	0.0512	4.5897	0.0278	4.6175	1.2167	0.0257	1.2424		3,852.2630	3,852.2630	0.1532		3,855.4808

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	371.36	371.36	371.36	2,243,925	2,199,046
Total	371.36	371.36	371.36	2,243,925	2,199,046

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

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5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Unmitigated	0.0189	0.1717	0.1442	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.0188	206.0188	3.9500e-003	3.7800e-003	207.2726
NaturalGas Mitigated	0.0180	0.1632	0.1371	9.8000e-004		0.0124	0.0124		0.0124	0.0124		195.8905	195.8905	3.7500e-003	3.5900e-003	197.0826

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	1751.16	0.0189	0.1717	0.1442	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.0188	206.0188	3.9500e-003	3.7800e-003	207.2726
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0189**	**0.1717**	**0.1442**	**1.0300e-003**		**0.0131**	**0.0131**		**0.0131**	**0.0131**		**206.0188**	**206.0188**	**3.9500e-003**	**3.7800e-003**	**207.2726**

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1.66507	0.0180	0.1632	0.1371	9.8000e-004		0.0124	0.0124		0.0124	0.0124		195.8905	195.8905	3.7500e-003	3.5900e-003	197.0826
Total		**0.0180**	**0.1632**	**0.1371**	**9.8000e-004**		**0.0124**	**0.0124**		**0.0124**	**0.0124**		**195.8905**	**195.8905**	**3.7500e-003**	**3.5900e-003**	**197.0826**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	11.7267	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Mitigated	9.8948	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2899					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.4303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4800e-003	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Total	**11.7267**	**6.3000e-004**	**0.0678**	**0.0000**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1434**	**0.1434**	**3.9000e-004**		**0.1516**

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.4303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4800e-003	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Total	**9.8948**	**6.3000e-004**	**0.0678**	**0.0000**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1434**	**0.1434**	**3.9000e-004**		**0.1516**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Tractors/Loaders/ Backhoes	0.3365	4.4970	1.6144	6.3200e-003		0.1451	0.1451		0.1335	0.1335		636.2174	636.2174	0.1981		640.3767
Total	**0.3365**	**4.4970**	**1.6144**	**6.3200e-003**		**0.1451**	**0.1451**		**0.1335**	**0.1335**		**636.2174**	**636.2174**	**0.1981**		**640.3767**

10.0 Vegetation

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High Cube- Passenger Cars

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total lot acreage: 19.6437; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Area Mitigation - Based on updated Rule 1113- All flat, nonflat, and default coatings shall be no more than 50 g/L low VOC level

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Mobile Land Use Mitigation -

Energy Mitigation - PV system to serve office area (80% of total project kWh)

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	2.11	1.76
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00

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tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.37
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00

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tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04

2.0 Emissions Summary

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2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.7267	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Energy	0.0189	0.1717	0.1442	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.0188	206.0188	3.9500e-003	3.7800e-003	207.2726
Mobile	0.7713	1.1621	13.1666	0.0488	4.6834	0.0283	4.7117	1.2415	0.0262	1.2677		3,679.9096	3,679.9096	0.1562		3,683.1907
Offroad	0.3365	4.4970	1.6144	6.3200e-003		0.1451	0.1451		0.1335	0.1335		636.2174	636.2174	0.1981		640.3767
Total	**12.8534**	**5.8314**	**14.9929**	**0.0562**	**4.6834**	**0.1867**	**4.8701**	**1.2415**	**0.1730**	**1.4145**		**4,522.2891**	**4,522.2891**	**0.3586**	**3.7800e-003**	**4,530.9916**

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.8948	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Energy	0.0180	0.1632	0.1371	9.8000e-004		0.0124	0.0124		0.0124	0.0124		195.8905	195.8905	3.7500e-003	3.5900e-003	197.0826
Mobile	0.7660	1.1406	12.9316	0.0479	4.5897	0.0278	4.6175	1.2167	0.0257	1.2424		3,607.2546	3,607.2546	0.1532		3,610.4724
Offroad	0.3365	4.4970	1.6144	6.3200e-003		0.1451	0.1451		0.1335	0.1335		636.2174	636.2174	0.1981		640.3767
Total	**11.0152**	**5.8015**	**14.7509**	**0.0552**	**4.5897**	**0.1856**	**4.7753**	**1.2167**	**0.1719**	**1.3885**		**4,439.5058**	**4,439.5058**	**0.3554**	**3.5900e-003**	**4,448.0834**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**16.92**	**77.63**	**12.38**	**13.05**	**2.00**	**78.33**	**4.93**	**2.00**	**77.82**	**11.27**	**0.00**	**15.90**	**15.90**	**56.12**	**5.03**	**15.96**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	0.7713	1.1621	13.1666	0.0488	4.6834	0.0283	4.7117	1.2415	0.0262	1.2677		3,679.9096	3,679.9096	0.1562		3,683.1907
Mitigated	0.7660	1.1406	12.9316	0.0479	4.5897	0.0278	4.6175	1.2167	0.0257	1.2424		3,607.2546	3,607.2546	0.1532		3,610.4724

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	371.36	371.36	371.36	2,243,925	2,199,046
Total	371.36	371.36	371.36	2,243,925	2,199,046

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

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5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Unmitigated	0.0189	0.1717	0.1442	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.0188	206.0188	3.9500e-003	3.7800e-003	207.2726
NaturalGas Mitigated	0.0180	0.1632	0.1371	9.8000e-004		0.0124	0.0124		0.0124	0.0124		195.8905	195.8905	3.7500e-003	3.5900e-003	197.0826

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	1751.16	0.0189	0.1717	0.1442	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.0188	206.0188	3.9500e-003	3.7800e-003	207.2726
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0189**	**0.1717**	**0.1442**	**1.0300e-003**		**0.0131**	**0.0131**		**0.0131**	**0.0131**		**206.0188**	**206.0188**	**3.9500e-003**	**3.7800e-003**	**207.2726**

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	1.66507	0.0180	0.1632	0.1371	9.8000e-004		0.0124	0.0124		0.0124	0.0124		195.8905	195.8905	3.7500e-003	3.5900e-003	197.0826
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0180**	**0.1632**	**0.1371**	**9.8000e-004**		**0.0124**	**0.0124**		**0.0124**	**0.0124**		**195.8905**	**195.8905**	**3.7500e-003**	**3.5900e-003**	**197.0826**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	11.7267	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Mitigated	9.8948	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2899					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.4303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4800e-003	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Total	**11.7267**	**6.3000e-004**	**0.0678**	**0.0000**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1434**	**0.1434**	**3.9000e-004**		**0.1516**

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4580					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.4303					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.4800e-003	6.3000e-004	0.0678	0.0000		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1434	0.1434	3.9000e-004		0.1516
Total	**9.8948**	**6.3000e-004**	**0.0678**	**0.0000**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1434**	**0.1434**	**3.9000e-004**		**0.1516**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Tractors/Loaders/ Backhoes	0.3365	4.4970	1.6144	6.3200e-003		0.1451	0.1451		0.1335	0.1335		636.2174	636.2174	0.1981		640.3767
Total	**0.3365**	**4.4970**	**1.6144**	**6.3200e-003**		**0.1451**	**0.1451**		**0.1335**	**0.1335**		**636.2174**	**636.2174**	**0.1981**		**640.3767**

10.0 Vegetation

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Warehouse- Trucks

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Area Mitigation - Based on updated Rule 1113- all flat, nonflat, default coatings shall have 50 g/L low VOC levels

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	HHD	0.03	0.51

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tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	MHD	0.02	0.33

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tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	1.48
tblVehicleTrips	SU_TR	0.62	1.48
tblVehicleTrips	WD_TR	3.82	1.48

2.0 Emissions Summary

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.9504	9.1316	7.1815	9.3300e-003	0.0000	0.6868	0.6868	0.0000	0.6318	0.6318	0.0000	954.7948	954.7948	0.2926	0.0000	960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**	**0.0000**	**0.6868**	**0.6868**	**0.0000**	**0.6318**	**0.6318**	**0.0000**	**954.7948**	**954.7948**	**0.2926**	**0.0000**	**960.9383**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.9504	9.1316	7.1815	9.3300e-003	0.0000	0.6868	0.6868	0.0000	0.6318	0.6318	0.0000	954.7948	954.7948	0.2926	0.0000	960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**	**0.0000**	**0.6868**	**0.6868**	**0.0000**	**0.6318**	**0.6318**	**0.0000**	**954.7948**	**954.7948**	**0.2926**	**0.0000**	**960.9383**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.9277	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Energy	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Mobile	3.7177	63.0579	33.3718	0.2237	7.0633	1.1869	8.2501	1.9800	1.0919	3.0719		21,797.4408	21,797.4408	0.1665		21,800.9373
Total	**6.7261**	**63.7913**	**34.0046**	**0.2281**	**7.0633**	**1.2426**	**8.3059**	**1.9800**	**1.1477**	**3.1277**		**22,677.3723**	**22,677.3723**	**0.1835**	**0.0161**	**22,686.2258**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4697	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Energy	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Mobile	3.7177	63.0579	33.3718	0.2237	7.0633	1.1869	8.2501	1.9800	1.0919	3.0719		21,797.4408	21,797.4408	0.1665		21,800.9373
Total	**6.2681**	**63.7913**	**34.0046**	**0.2281**	**7.0633**	**1.2426**	**8.3059**	**1.9800**	**1.1477**	**3.1277**		**22,677.3723**	**22,677.3723**	**0.1835**	**0.0161**	**22,686.2258**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	6.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9504	9.1316	7.1815	9.3300e-003		0.6868	0.6868		0.6318	0.6318		954.7948	954.7948	0.2926		960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**		**0.6868**	**0.6868**		**0.6318**	**0.6318**		**954.7948**	**954.7948**	**0.2926**		**960.9383**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9504	9.1316	7.1815	9.3300e-003		0.6868	0.6868		0.6318	0.6318	0.0000	954.7948	954.7948	0.2926		960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**		**0.6868**	**0.6868**		**0.6318**	**0.6318**	**0.0000**	**954.7948**	**954.7948**	**0.2926**		**960.9383**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.7177	63.0579	33.3718	0.2237	7.0633	1.1869	8.2501	1.9800	1.0919	3.0719		21,797.4408	21,797.4408	0.1665		21,800.9373
Unmitigated	3.7177	63.0579	33.3718	0.2237	7.0633	1.1869	8.2501	1.9800	1.0919	3.0719		21,797.4408	21,797.4408	0.1665		21,800.9373

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	131.94	131.94	131.94	2,929,619	2,929,619
Parking Lot	0.00	0.00	0.00		
Total	131.94	131.94	131.94	2,929,619	2,929,619

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	61.00	8.40	6.90	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.157600	0.000000	0.328200	0.514200	0.000000	0.000000	0.000000	0.000000	0.000000

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
NaturalGas Unmitigated	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Manufacturing	7479.11	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0807**	**0.7333**	**0.6159**	**4.4000e-003**		**0.0557**	**0.0557**		**0.0557**	**0.0557**		**879.8958**	**879.8958**	**0.0169**	**0.0161**	**885.2507**

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Manufacturing	7.47911	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0807**	**0.7333**	**0.6159**	**4.4000e-003**		**0.0557**	**0.0557**		**0.0557**	**0.0557**		**879.8958**	**879.8958**	**0.0169**	**0.0161**	**885.2507**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4697	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Unmitigated	2.9277	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5724					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3536					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Total	**2.9277**	**1.6000e-004**	**0.0169**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0357**	**0.0357**	**1.0000e-004**		**0.0378**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3536					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Total	**2.4697**	**1.6000e-004**	**0.0169**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0357**	**0.0357**	**1.0000e-004**		**0.0378**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

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Warehouse- Trucks

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Area Mitigation - Based on updated Rule 1113- all flat, nonflat, default coatings shall have 50 g/L low VOC levels

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	HHD	0.03	0.51

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tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	MHD	0.02	0.33

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tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	1.48
tblVehicleTrips	SU_TR	0.62	1.48
tblVehicleTrips	WD_TR	3.82	1.48

2.0 Emissions Summary

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.9504	9.1316	7.1815	9.3300e-003	0.0000	0.6868	0.6868	0.0000	0.6318	0.6318	0.0000	954.7948	954.7948	0.2926	0.0000	960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**	**0.0000**	**0.6868**	**0.6868**	**0.0000**	**0.6318**	**0.6318**	**0.0000**	**954.7948**	**954.7948**	**0.2926**	**0.0000**	**960.9383**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.9504	9.1316	7.1815	9.3300e-003	0.0000	0.6868	0.6868	0.0000	0.6318	0.6318	0.0000	954.7948	954.7948	0.2926	0.0000	960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**	**0.0000**	**0.6868**	**0.6868**	**0.0000**	**0.6318**	**0.6318**	**0.0000**	**954.7948**	**954.7948**	**0.2926**	**0.0000**	**960.9383**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.9277	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Energy	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Mobile	3.7851	65.5756	35.6024	0.2235	7.0633	1.1880	8.2513	1.9800	1.0930	3.0730		21,777.8524	21,777.8524	0.1671		21,781.3615
Total	**6.7934**	**66.3090**	**36.2353**	**0.2279**	**7.0633**	**1.2438**	**8.3071**	**1.9800**	**1.1488**	**3.1288**		**22,657.7838**	**22,657.7838**	**0.1841**	**0.0161**	**22,666.6499**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4697	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Energy	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Mobile	3.7851	65.5756	35.6024	0.2235	7.0633	1.1880	8.2513	1.9800	1.0930	3.0730		21,777.8524	21,777.8524	0.1671		21,781.3615
Total	**6.3355**	**66.3090**	**36.2353**	**0.2279**	**7.0633**	**1.2438**	**8.3071**	**1.9800**	**1.1488**	**3.1288**		**22,657.7838**	**22,657.7838**	**0.1841**	**0.0161**	**22,666.6499**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	6.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9504	9.1316	7.1815	9.3300e-003		0.6868	0.6868		0.6318	0.6318		954.7948	954.7948	0.2926		960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**		**0.6868**	**0.6868**		**0.6318**	**0.6318**		**954.7948**	**954.7948**	**0.2926**		**960.9383**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9504	9.1316	7.1815	9.3300e-003		0.6868	0.6868		0.6318	0.6318	0.0000	954.7948	954.7948	0.2926		960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**		**0.6868**	**0.6868**		**0.6318**	**0.6318**	**0.0000**	**954.7948**	**954.7948**	**0.2926**		**960.9383**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.7851	65.5756	35.6024	0.2235	7.0633	1.1880	8.2513	1.9800	1.0930	3.0730		21,777.8524	21,777.8524	0.1671		21,781.3615
Unmitigated	3.7851	65.5756	35.6024	0.2235	7.0633	1.1880	8.2513	1.9800	1.0930	3.0730		21,777.8524	21,777.8524	0.1671		21,781.3615

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	131.94	131.94	131.94	2,929,619	2,929,619
Parking Lot	0.00	0.00	0.00		
Total	131.94	131.94	131.94	2,929,619	2,929,619

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	61.00	8.40	6.90	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.157600	0.000000	0.328200	0.514200	0.000000	0.000000	0.000000	0.000000	0.000000

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
NaturalGas Unmitigated	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Manufacturing	7479.11	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0807**	**0.7333**	**0.6159**	**4.4000e-003**		**0.0557**	**0.0557**		**0.0557**	**0.0557**		**879.8958**	**879.8958**	**0.0169**	**0.0161**	**885.2507**

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Manufacturing	7.47911	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0807**	**0.7333**	**0.6159**	**4.4000e-003**		**0.0557**	**0.0557**		**0.0557**	**0.0557**		**879.8958**	**879.8958**	**0.0169**	**0.0161**	**885.2507**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4697	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Unmitigated	2.9277	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5724					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3536					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Total	**2.9277**	**1.6000e-004**	**0.0169**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0357**	**0.0357**	**1.0000e-004**		**0.0378**

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3536					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Total	**2.4697**	**1.6000e-004**	**0.0169**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0357**	**0.0357**	**1.0000e-004**		**0.0378**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Warehouse- Passenger Cars

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces. Parking represents ratio of total parking

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Area Mitigation - Based on updated Rule 1113- all flat, nonflat, default coatings shall have 50 g/L low VOC levels

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00

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tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00

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tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	2.34
tblVehicleTrips	SU_TR	0.62	2.34
tblVehicleTrips	WD_TR	3.82	2.34

2.0 Emissions Summary

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2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.9504	9.1316	7.1815	9.3300e-003	0.0000	0.6868	0.6868	0.0000	0.6318	0.6318	0.0000	954.7948	954.7948	0.2926	0.0000	960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**	**0.0000**	**0.6868**	**0.6868**	**0.0000**	**0.6318**	**0.6318**	**0.0000**	**954.7948**	**954.7948**	**0.2926**	**0.0000**	**960.9383**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.9504	9.1316	7.1815	9.3300e-003	0.0000	0.6868	0.6868	0.0000	0.6318	0.6318	0.0000	954.7948	954.7948	0.2926	0.0000	960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**	**0.0000**	**0.6868**	**0.6868**	**0.0000**	**0.6318**	**0.6318**	**0.0000**	**954.7948**	**954.7948**	**0.2926**	**0.0000**	**960.9383**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.9277	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Energy	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Mobile	0.4368	0.5979	8.1908	0.0294	2.6344	0.0159	2.6503	0.6983	0.0147	0.7131		2,210.5790	2,210.5790	0.0879		2,212.4246
Total	**3.4452**	**1.3313**	**8.8237**	**0.0338**	**2.6344**	**0.0717**	**2.7061**	**0.6983**	**0.0705**	**0.7689**		**3,090.5105**	**3,090.5105**	**0.1049**	**0.0161**	**3,097.7130**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.4697	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Energy	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Mobile	0.4368	0.5979	8.1908	0.0294	2.6344	0.0159	2.6503	0.6983	0.0147	0.7131		2,210.5790	2,210.5790	0.0879		2,212.4246
Total	**2.9872**	**1.3313**	**8.8237**	**0.0338**	**2.6344**	**0.0717**	**2.7061**	**0.6983**	**0.0705**	**0.7689**		**3,090.5105**	**3,090.5105**	**0.1049**	**0.0161**	**3,097.7130**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	13.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9504	9.1316	7.1815	9.3300e-003		0.6868	0.6868		0.6318	0.6318		954.7948	954.7948	0.2926		960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**		**0.6868**	**0.6868**		**0.6318**	**0.6318**		**954.7948**	**954.7948**	**0.2926**		**960.9383**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9504	9.1316	7.1815	9.3300e-003		0.6868	0.6868		0.6318	0.6318	0.0000	954.7948	954.7948	0.2926		960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**		**0.6868**	**0.6868**		**0.6318**	**0.6318**	**0.0000**	**954.7948**	**954.7948**	**0.2926**		**960.9383**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4368	0.5979	8.1908	0.0294	2.6344	0.0159	2.6503	0.6983	0.0147	0.7131		2,210.5790	2,210.5790	0.0879		2,212.4246
Unmitigated	0.4368	0.5979	8.1908	0.0294	2.6344	0.0159	2.6503	0.6983	0.0147	0.7131		2,210.5790	2,210.5790	0.0879		2,212.4246

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	208.89	208.89	208.89	1,262,208	1,262,208
Parking Lot	0.00	0.00	0.00		
Total	208.89	208.89	208.89	1,262,208	1,262,208

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
NaturalGas Unmitigated	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Manufacturing	7479.11	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0807**	**0.7333**	**0.6159**	**4.4000e-003**		**0.0557**	**0.0557**		**0.0557**	**0.0557**		**879.8958**	**879.8958**	**0.0169**	**0.0161**	**885.2507**

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Manufacturing	7.47911	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0807**	**0.7333**	**0.6159**	**4.4000e-003**		**0.0557**	**0.0557**		**0.0557**	**0.0557**		**879.8958**	**879.8958**	**0.0169**	**0.0161**	**885.2507**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4697	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Unmitigated	2.9277	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5724					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3536					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Total	**2.9277**	**1.6000e-004**	**0.0169**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0357**	**0.0357**	**1.0000e-004**		**0.0378**

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3536					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Total	**2.4697**	**1.6000e-004**	**0.0169**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0357**	**0.0357**	**1.0000e-004**		**0.0378**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Warehouse- Passenger Cars

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces. Parking represents ratio of total parking

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Area Mitigation - Based on updated Rule 1113- all flat, nonflat, default coatings shall have 50 g/L low VOC levels

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00

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tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00

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tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	2.34
tblVehicleTrips	SU_TR	0.62	2.34
tblVehicleTrips	WD_TR	3.82	2.34

2.0 Emissions Summary

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.9504	9.1316	7.1815	9.3300e-003	0.0000	0.6868	0.6868	0.0000	0.6318	0.6318	0.0000	954.7948	954.7948	0.2926	0.0000	960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**	**0.0000**	**0.6868**	**0.6868**	**0.0000**	**0.6318**	**0.6318**	**0.0000**	**954.7948**	**954.7948**	**0.2926**	**0.0000**	**960.9383**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.9504	9.1316	7.1815	9.3300e-003	0.0000	0.6868	0.6868	0.0000	0.6318	0.6318	0.0000	954.7948	954.7948	0.2926	0.0000	960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**	**0.0000**	**0.6868**	**0.6868**	**0.0000**	**0.6318**	**0.6318**	**0.0000**	**954.7948**	**954.7948**	**0.2926**	**0.0000**	**960.9383**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Area	2.9277	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Energy	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Mobile	0.4339	0.6537	7.4062	0.0275	2.6344	0.0159	2.6503	0.6983	0.0147	0.7131		2,069.9492	2,069.9492	0.0879		2,071.7948
Total	**3.4422**	**1.3871**	**8.0390**	**0.0319**	**2.6344**	**0.0717**	**2.7061**	**0.6983**	**0.0705**	**0.7689**		**2,949.8806**	**2,949.8806**	**0.1049**	**0.0161**	**2,957.0832**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Area	2.4697	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Energy	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Mobile	0.4339	0.6537	7.4062	0.0275	2.6344	0.0159	2.6503	0.6983	0.0147	0.7131		2,069.9492	2,069.9492	0.0879		2,071.7948
Total	**2.9842**	**1.3871**	**8.0390**	**0.0319**	**2.6344**	**0.0717**	**2.7061**	**0.6983**	**0.0705**	**0.7689**		**2,949.8806**	**2,949.8806**	**0.1049**	**0.0161**	**2,957.0832**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9504	9.1316	7.1815	9.3300e-003		0.6868	0.6868		0.6318	0.6318		954.7948	954.7948	0.2926		960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**		**0.6868**	**0.6868**		**0.6318**	**0.6318**		**954.7948**	**954.7948**	**0.2926**		**960.9383**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9504	9.1316	7.1815	9.3300e-003		0.6868	0.6868		0.6318	0.6318	0.0000	954.7948	954.7948	0.2926		960.9383
Total	**0.9504**	**9.1316**	**7.1815**	**9.3300e-003**		**0.6868**	**0.6868**		**0.6318**	**0.6318**	**0.0000**	**954.7948**	**954.7948**	**0.2926**		**960.9383**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4339	0.6537	7.4062	0.0275	2.6344	0.0159	2.6503	0.6983	0.0147	0.7131		2,069.9492	2,069.9492	0.0879		2,071.7948
Unmitigated	0.4339	0.6537	7.4062	0.0275	2.6344	0.0159	2.6503	0.6983	0.0147	0.7131		2,069.9492	2,069.9492	0.0879		2,071.7948

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	208.89	208.89	208.89	1,262,208	1,262,208
Parking Lot	0.00	0.00	0.00		
Total	208.89	208.89	208.89	1,262,208	1,262,208

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
NaturalGas Unmitigated	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Manufacturing	7479.11	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0807**	**0.7333**	**0.6159**	**4.4000e-003**		**0.0557**	**0.0557**		**0.0557**	**0.0557**		**879.8958**	**879.8958**	**0.0169**	**0.0161**	**885.2507**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Manufacturing	7.47911	0.0807	0.7333	0.6159	4.4000e-003		0.0557	0.0557		0.0557	0.0557		879.8958	879.8958	0.0169	0.0161	885.2507
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0807**	**0.7333**	**0.6159**	**4.4000e-003**		**0.0557**	**0.0557**		**0.0557**	**0.0557**		**879.8958**	**879.8958**	**0.0169**	**0.0161**	**885.2507**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4697	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Unmitigated	2.9277	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5724					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3536					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Total	**2.9277**	**1.6000e-004**	**0.0169**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0357**	**0.0357**	**1.0000e-004**		**0.0378**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3536					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0169	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0357	0.0357	1.0000e-004		0.0378
Total	**2.4697**	**1.6000e-004**	**0.0169**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0357**	**0.0357**	**1.0000e-004**		**0.0378**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 3.2:

STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS

2013
Area Designations for State Ambient Air Quality Standards
OZONE



Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

2013
Area Designations for State Ambient Air Quality Standards
PM10



Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

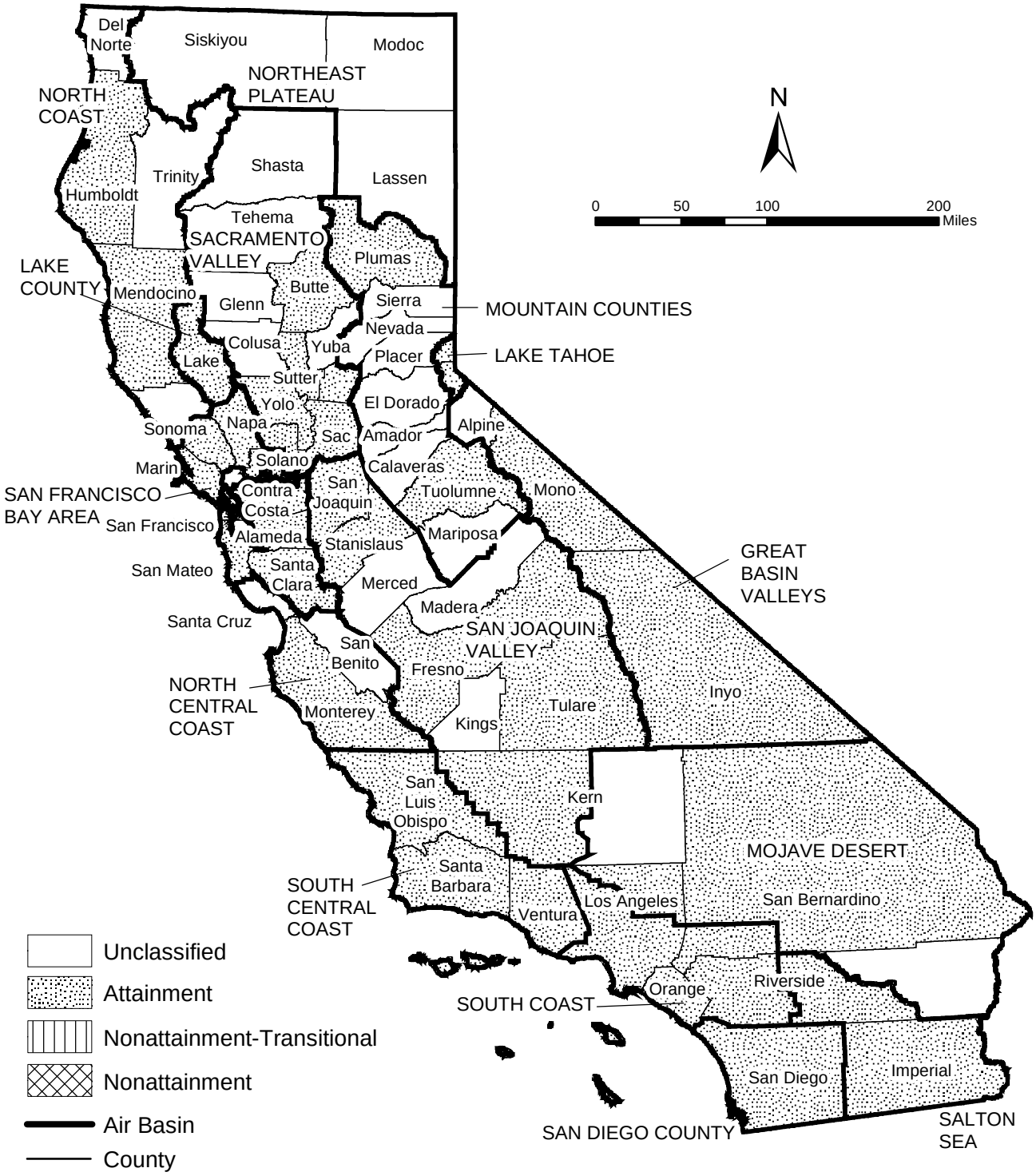
2013
Area Designations for State Ambient Air Quality Standards
PM2.5



Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

2013
Area Designations for State Ambient Air Quality Standards
CARBON MONOXIDE



Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

2013
Area Designations for State Ambient Air Quality Standards
NITROGEN DIOXIDE



Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

2013
Area Designations for State Ambient Air Quality Standards
SULFUR DIOXIDE



Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

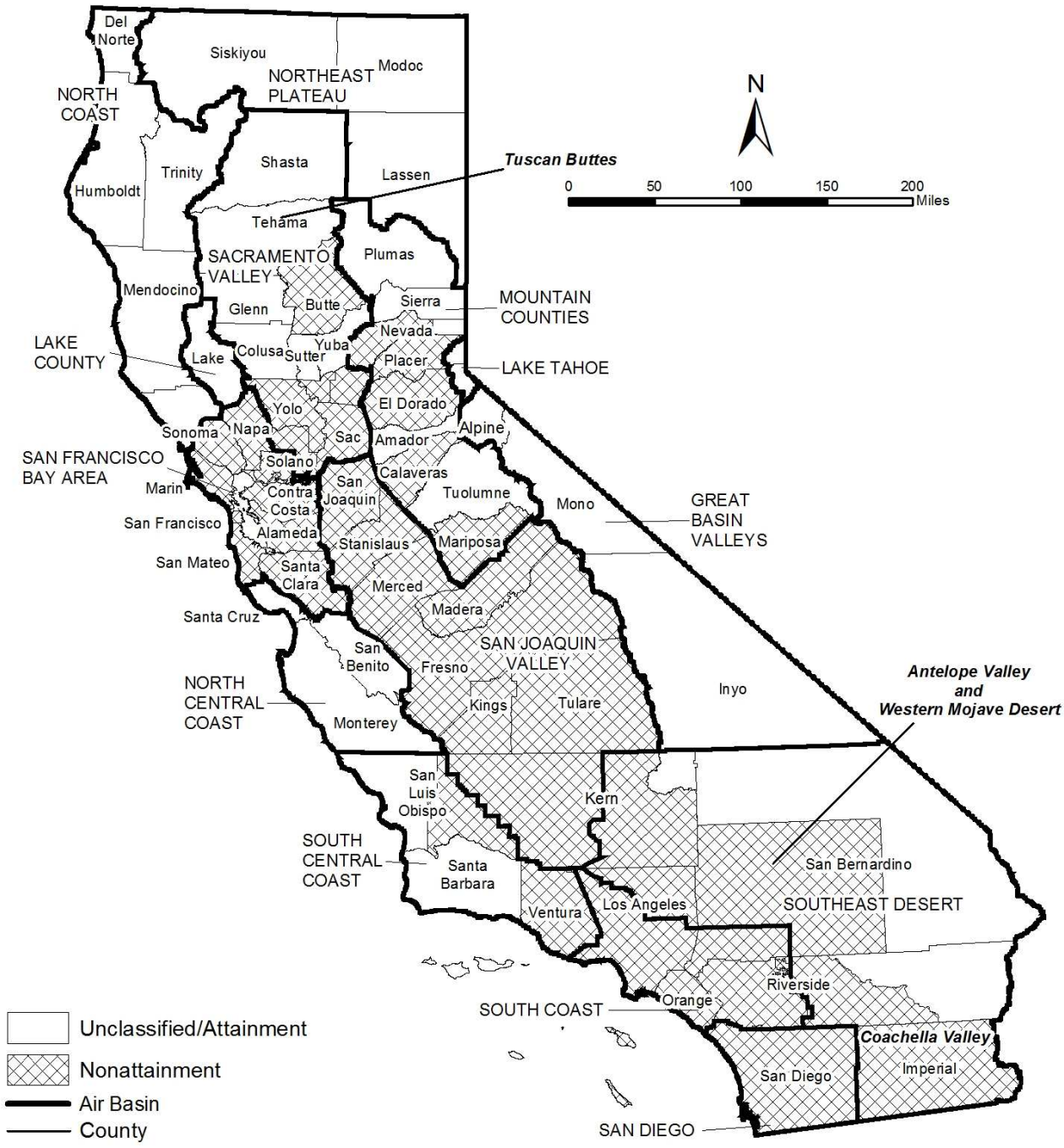
2013
Area Designations for State Ambient Air Quality Standards
LEAD



Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

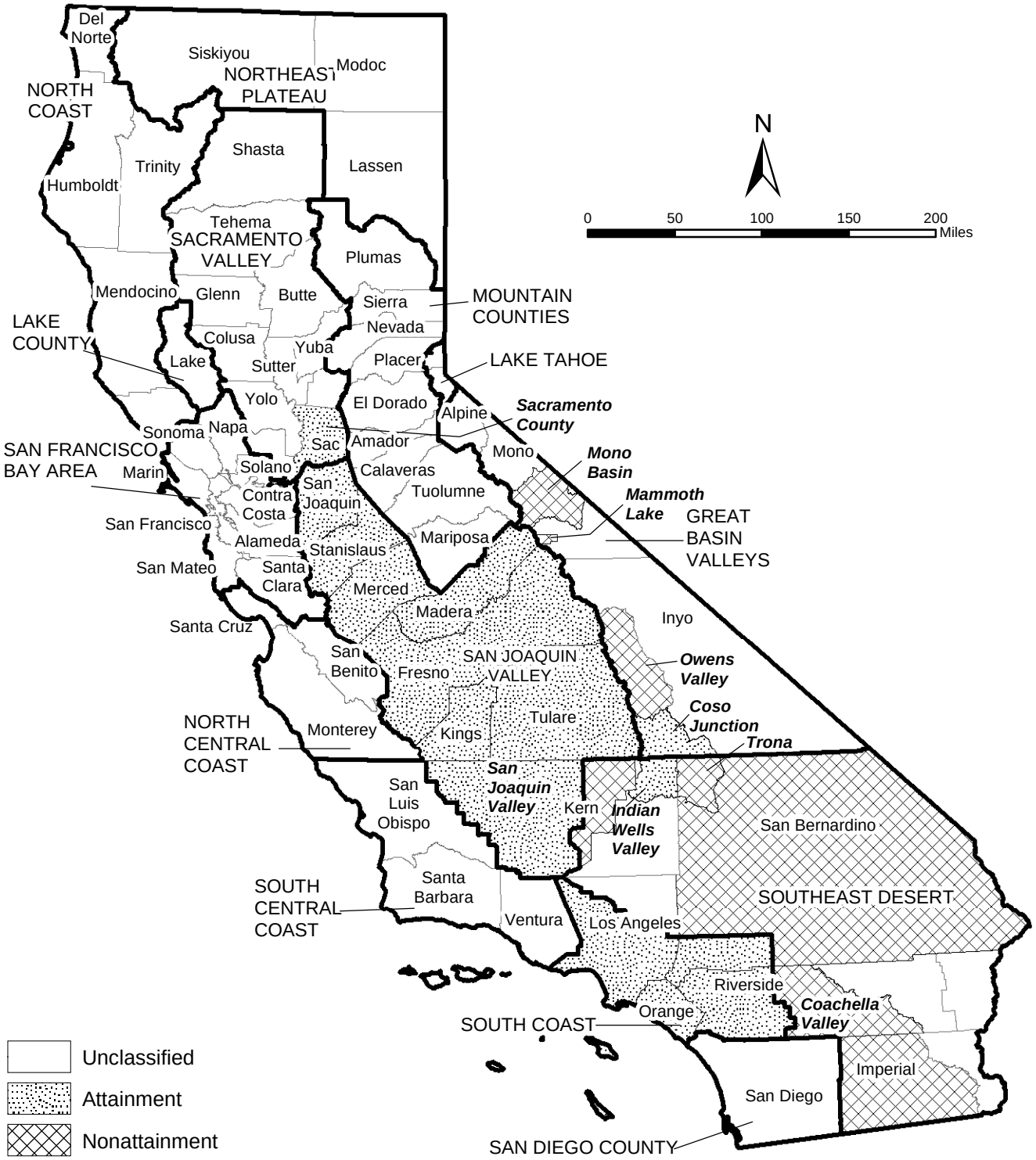
Area Designations for National Ambient Air Quality Standards 8-HOUR OZONE



Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Area Designations for National Ambient Air Quality Standards PM10



Source Date:
September 2013
Air Quality Planning Branch, AQPSD

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Area Designations for National Ambient Air Quality Standards PM2.5



Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Area Designations for National Ambient Air Quality Standards CARBON MONOXIDE



Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

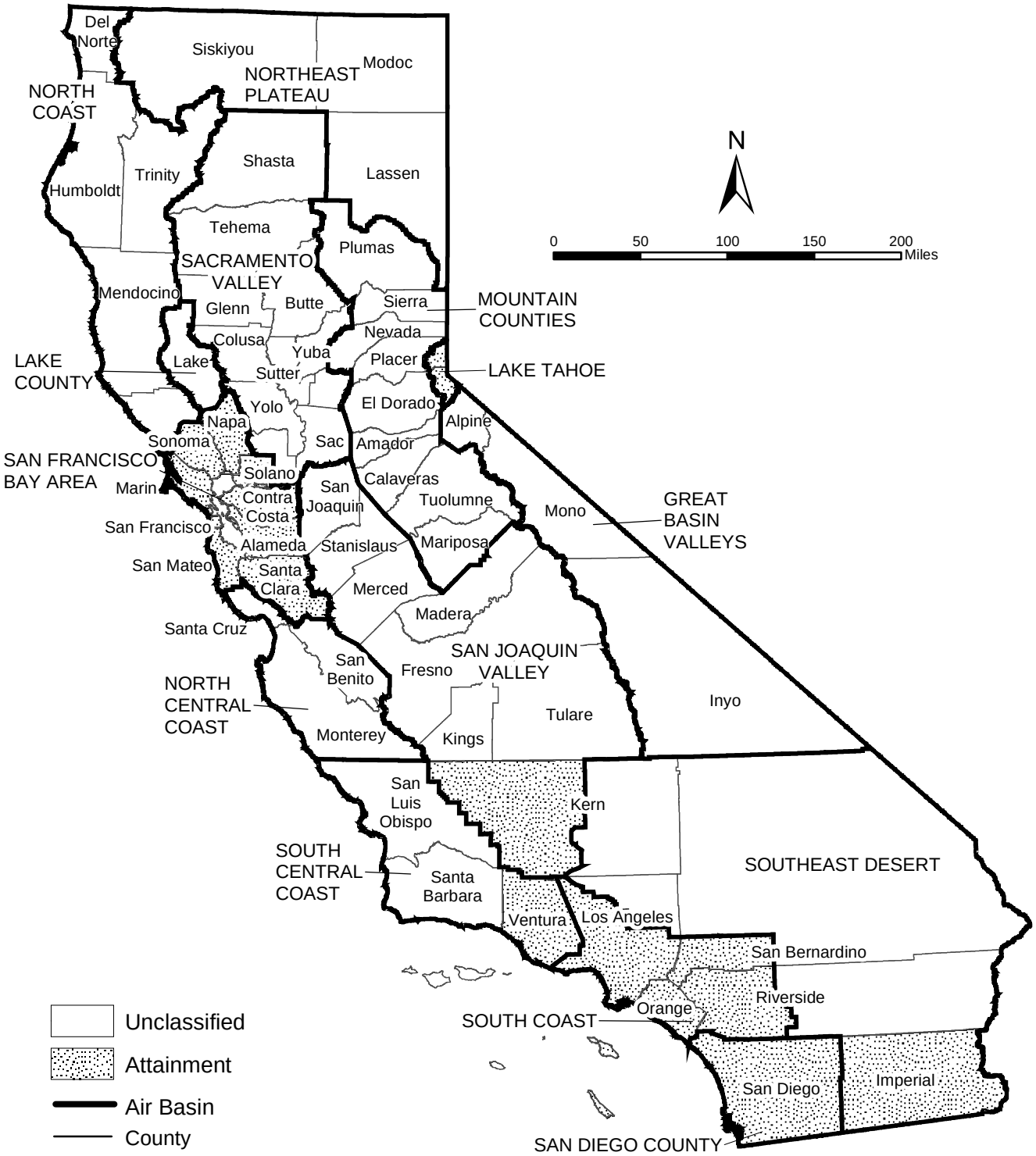
Area Designations for National Ambient Air Quality Standards NITROGEN DIOXIDE



Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Area Designations for National Ambient Air Quality Standards SULFUR DIOXIDE



Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Area Designations for National Ambient Air Quality Standards LEAD



Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 3.3:

LST ANALYSIS

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 7/7/2016
** File: C:\Lakes\AERMOD View\ISCC\LSTs\Construction\CO\CO.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\ISCC\LSTs\Construction\CO\CO.isc
   MODELOPT DFAULT CONC
   AVERTIME 1 8
   URBANOPT 2100516
   POLLUTID CO
   RUNORNOT RUN
   ERRORFIL CO.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION AREA1        AREA       477998.480  3746825.480      448.000
** DESCRSRC Unmitigated
   LOCATION AREA2        AREA       477988.158  3746769.740      448.000
** DESCRSRC Unmitigated
   LOCATION AREA3        AREA       477998.480  3746825.480      448.000
** DESCRSRC Mitigated
   LOCATION AREA4        AREA       477988.158  3746769.740      448.000
** DESCRSRC Mitigated
** Source Parameters **
   SRCPARAM AREA1        0.000084042     0.000   110.185   110.185     0.000     1.000
   SRCPARAM AREA2        0.0000444471     0.000   179.930   179.930     0.000     1.000
   SRCPARAM AREA3        0.0000670003     0.000   110.185   110.185     0.000     1.000
   SRCPARAM AREA4        0.000030861     0.000   179.930   179.930     0.000     1.000
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Construction"
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT AREA1        HROFDY 1.0 1.0 1.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP SitePrep AREA1
   SRCGROUP Grading  AREA2
   SRCGROUP SPM      AREA3
   SRCGROUP GRM      AREA4
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
RE STARTING
   INCLUDED CO.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\..\..\peri8.sfc
   PROFFILE ..\..\..\peri8.pfl
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 SitePrep 1ST CO.AD\01H1G001.PLT 31
   PLOTFILE 8 SitePrep 1ST CO.AD\08H1G001.PLT 32
   PLOTFILE 1 Grading 1ST CO.AD\01H1G002.PLT 33
   PLOTFILE 8 Grading 1ST CO.AD\08H1G002.PLT 34
   PLOTFILE 1 SPM 1ST CO.AD\01H1G003.PLT 35
   PLOTFILE 8 SPM 1ST CO.AD\08H1G003.PLT 36
   PLOTFILE 1 GRM 1ST CO.AD\01H1G004.PLT 37
   PLOTFILE 8 GRM 1ST CO.AD\08H1G004.PLT 38
   SUMMFILE CO.sum
OU FINISHED

 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\CO\CO.isc               ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   15:39:54

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for     4 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  CO

 **Model Calculates  2 Short Term Average(s) of:   1-HR   8-HR

 **This Run Includes:      4 Source(s);       4 Source Group(s); and      21 Receptor(s)

               with:       0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                and:       0 VOLUME source(s)
                and:       4 AREA type source(s)
                and:       0 LINE source(s)
                and:       0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                  Emission Units = GRAMS/SEC                              ;  Emission Rate Unit Factor =
0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Detailed Error/Message File:   CO.err

 **File for Summary of Results:   CO.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\CO\CO.isc               ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
   15:39:54

   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** AREA SOURCE DATA ***

              NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM     Y-DIM    ORIENT.    INIT.
URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT  OF AREA   OF AREA   OF AREA     SZ
SOURCE  SCALAR VARY
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                                                CO
     ID          CATS.    /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)  (METERS)   (DEG.)  (METERS)
        BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - -

 AREA1            0   0.84042E-04  477998.5 3746825.5   448.0     0.00    110.18    110.18      0.00     1.00
YES   HROFDY
 AREA2            0   0.44447E-04  477988.2 3746769.7   448.0     0.00    179.93    179.93      0.00     1.00
YES
 AREA3            0   0.67000E-04  477998.5 3746825.5   448.0     0.00    110.18    110.18      0.00     1.00
YES
 AREA4            0   0.30861E-04  477988.2 3746769.7   448.0     0.00    179.93    179.93      0.00     1.00
YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\CO\CO.isc                 ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:39:54

   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                          SOURCE IDs
 -----------                                          ----------


  SITEPREP   AREA1       ,

  GRADING    AREA2       ,

  SPM        AREA3       ,

  GRM        AREA4       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\CO\CO.isc                 ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:39:54

   PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                      *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                               SOURCE IDs
  --------   ---------                               ----------


             2100516.   AREA1       , AREA2       , AREA3       , AREA4       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\CO\CO.isc                 ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:39:54

   PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

CO

SOURCE ID = AREA1 ; SOURCE TYPE = AREA :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\CO\CO.isc *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 15:39:54

PAGE 6
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(478756.5, 3747340.4, 448.0, 448.0, 0.0); (477850.2, 3745739.2, 448.0, 448.0, 0.0);
(477468.3, 3745732.7, 450.0, 450.0, 0.0); (477064.8, 3746275.6, 452.0, 452.0, 0.0);
(476681.9, 3747195.9, 453.0, 453.0, 0.0); (478756.5, 3747340.4, 448.0, 448.0, 0.0);
(477850.2, 3745739.2, 448.0, 448.0, 0.0); (477468.3, 3745732.7, 450.0, 450.0, 0.0);
(477064.8, 3746275.6, 452.0, 452.0, 0.0); (476681.9, 3747195.9, 453.0, 453.0, 0.0);
(478080.5, 3746730.6, 448.0, 448.0, 0.0); (478061.2, 3746985.5, 448.0, 448.0, 0.0);
(478376.0, 3747009.6, 448.0, 448.0, 0.0); (478314.2, 3746847.4, 447.2, 447.2, 0.0);
(478166.2, 3747511.6, 448.0, 448.0, 0.0); (478593.6, 3747910.4, 449.0, 449.0, 0.0);
(478741.6, 3747610.7, 448.0, 448.0, 0.0); (478124.1, 3747953.8, 450.0, 450.0, 0.0);
(478800.1, 3746766.9, 446.0, 446.0, 0.0); (476744.0, 3746652.5, 454.0, 454.0, 0.0);
(476399.7, 3746690.7, 457.0, 457.0, 0.0);

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1

CO
1 1 1

CO

```
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00   0.27    5.80  318.    9.1  292.0
 5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00   0.36    5.80  329.    9.1  291.4
 5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00   0.64    4.50  333.    9.1  289.9
 5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00   1.00    3.60  305.    9.1  288.8
 5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00   1.00    4.50  276.    9.1  287.5
 5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00   1.00    3.60  323.    9.1  287.5
 5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00   1.00    4.00  322.    9.1  288.1
 5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00   1.00    4.50   30.    9.1  288.1
 5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00   1.00    4.00  343.    9.1  287.0
 5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00   1.00    1.80  155.    9.1  283.8
 5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:
SITEPREP ***
                               INCLUDING SOURCE(S):     AREA1       ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                     ** CONC OF CO       IN MICROGRAMS/M**3                          **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)  Y-COORD (M)        CONC
(YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -
        478756.45   3747340.45      175.49208  (09012308)             477850.17   3745739.17       82.27327
(11010208)
        477468.29   3745732.72      101.76174  (08120308)             477064.80   3746275.62      115.33639
(08010408)
        476681.88   3747195.89       89.94885  (07120208)             478756.45   3747340.45      175.49208
(09012308)
        477850.17   3745739.17       82.27327  (11010208)             477468.29   3745732.72      101.76174
(08120308)
        477064.80   3746275.62      115.33639  (08010408)             476681.88   3747195.89       89.94885
(07120208)
        478080.50   3746730.56      952.55830  (10011208)             478061.18   3746985.48     1283.72078
(10021508)
        478375.97   3747009.62      468.07983  (07010408)             478314.17   3746847.40      550.72968
(08022108)
        478166.25   3747511.58      238.52911  (09011908)             478593.58   3747910.42      115.10150
(08112308)
        478741.65   3747610.66      138.52893  (11123108)             478124.08   3747953.76      126.98743
(09011708)
        478800.07   3746766.89      160.44317  (08022108)             476744.03   3746652.46       96.38201
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

(07121708)
476399.72 3746690.72 76.26069 (09120608)

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: GRADING
***
INCLUDING SOURCE(S): AREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	218.43134	(09082724)	477850.17	3745739.17	151.49871	(09090106)
477468.29	3745732.72	133.64508	(09072603)	477064.80	3746275.62	149.66824	(09090921)
476681.88	3747195.89	116.77230	(07083003)	478756.45	3747340.45	218.43134	(09082724)
477850.17	3745739.17	151.49871	(09090106)	477468.29	3745732.72	133.64508	(09072603)
477064.80	3746275.62	149.66824	(09090921)	476681.88	3747195.89	116.77230	(07083003)
478080.50	3746730.56	1043.23675	(07081721)	478061.18	3746985.48	1086.95467	(07090219)
478375.97	3747009.62	512.65974	(07090301)	478314.17	3746847.40	611.07182	(08071523)
478166.25	3747511.58	269.47141	(10071723)	478593.58	3747910.42	150.15588	(11082822)
478741.65	3747610.66	178.91406	(09092321)	478124.08	3747953.76	158.54476	(07072305)
478800.07	3746766.89	242.13481	(07031222)	476744.03	3746652.46	125.20784	(07081904)
476399.72	3746690.72	102.10341	(11090802)				

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SPM
***
INCLUDING SOURCE(S): AREA3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	142.78612	(08100123)	477850.17	3745739.17	95.30444	(07081603)

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

477468.29	3745732.72	83.15228	(10082002)	477064.80	3746275.62	94.49115	(08082824)
476681.88	3747195.89	74.74124	(07083003)	478756.45	3747340.45	142.78612	(08100123)
477850.17	3745739.17	95.30444	(07081603)	477468.29	3745732.72	83.15228	(10082002)
477064.80	3746275.62	94.49115	(08082824)	476681.88	3747195.89	74.74124	(07083003)
478080.50	3746730.56	771.67379	(09090202)	478061.18	3746985.48	1043.86810	(07083124)
478375.97	3747009.62	385.56032	(07090103)	478314.17	3746847.40	486.47046	(07031222)
478166.25	3747511.58	195.75415	(08091823)	478593.58	3747910.42	94.68392	(08071702)
478741.65	3747610.66	114.19513	(08070502)	478124.08	3747953.76	104.63476	(07070524)
478800.07	3746766.89	161.19509	(07062123)	476744.03	3746652.46	79.52398	(08082803)
476399.72	3746690.72	63.33645	(11090802)				

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: GRM ***
INCLUDING SOURCE(S): AREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	151.66366	(09082724)	477850.17	3745739.17	105.19025	(09090106)
477468.29	3745732.72	92.79392	(09072603)	477064.80	3746275.62	103.91930	(09090921)
476681.88	3747195.89	81.07863	(07083003)	478756.45	3747340.45	151.66366	(09082724)
477850.17	3745739.17	105.19025	(09090106)	477468.29	3745732.72	92.79392	(09072603)
477064.80	3746275.62	103.91930	(09090921)	476681.88	3747195.89	81.07863	(07083003)
478080.50	3746730.56	724.35163	(07081721)	478061.18	3746985.48	754.70634	(07090219)
478375.97	3747009.62	355.95556	(07090301)	478314.17	3746847.40	424.28611	(08071523)
478166.25	3747511.58	187.10236	(10071723)	478593.58	3747910.42	104.25788	(11082822)
478741.65	3747610.66	124.22558	(09092321)	478124.08	3747953.76	110.08254	(07072305)
478800.07	3746766.89	168.12171	(07031222)	476744.03	3746652.46	86.93568	(07081904)
476399.72	3746690.72	70.89357	(11090802)				

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SITEPREP ***
INCLUDING SOURCE(S): AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	23.26414c	(10121708)	477850.17	3745739.17	10.28416	(11010208)
477468.29	3745732.72	12.72022	(08120308)	477064.80	3746275.62	14.41705	(08010408)
476681.88	3747195.89	11.24361	(07120208)	478756.45	3747340.45	23.26414c	(10121708)
477850.17	3745739.17	10.28416	(11010208)	477468.29	3745732.72	12.72022	(08120308)
477064.80	3746275.62	14.41705	(08010408)	476681.88	3747195.89	11.24361	(07120208)
478080.50	3746730.56	127.76574m	(10120708)	478061.18	3746985.48	181.33567m	(11012408)
478375.97	3747009.62	58.50998	(07010408)	478314.17	3746847.40	68.84121	(08022108)
478166.25	3747511.58	29.81614	(09011908)	478593.58	3747910.42	14.38769	(08112308)
478741.65	3747610.66	17.31612	(11123108)	478124.08	3747953.76	15.87343	(09011708)
478800.07	3746766.89	20.05540	(08022108)	476744.03	3746652.46	12.04775	(07121708)
476399.72	3746690.72	9.53259	(09120608)				

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: GRADING ***
INCLUDING SOURCE(S): AREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	56.18183b	(10020708)	477850.17	3745739.17	38.75250	(09111024)
477468.29	3745732.72	37.10457	(07072508)	477064.80	3746275.62	36.69236	(07081208)
476681.88	3747195.89	37.49217	(07122824)	478756.45	3747340.45	56.18183b	(10020708)
477850.17	3745739.17	38.75250	(09111024)	477468.29	3745732.72	37.10457	(07072508)
477064.80	3746275.62	36.69236	(07081208)	476681.88	3747195.89	37.49217	(07122824)

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

478080.50	3746730.56	733.35674	(07111724)	478061.18	3746985.48	953.38304	(08012008)
478375.97	3747009.62	204.63015b	(10020708)	478314.17	3746847.40	283.54677	(08020224)
478166.25	3747511.58	137.18117	(09021208)	478593.58	3747910.42	50.04753b	(10042008)
478741.65	3747610.66	64.46635	(11040808)	478124.08	3747953.76	61.74136	(07011708)
478800.07	3746766.89	57.23529	(08022424)	476744.03	3746652.46	31.46575	(08010224)
476399.72	3746690.72	24.73020	(08010224)				

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SPM ***
INCLUDING SOURCE(S): AREA3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	36.07501b	(10020708)	477850.17	3745739.17	24.96577	(08090124)
477468.29	3745732.72	22.03580	(07072508)	477064.80	3746275.62	22.97216	(07081208)
476681.88	3747195.89	23.46462	(07122824)	478756.45	3747340.45	36.07501b	(10020708)
477850.17	3745739.17	24.96577	(08090124)	477468.29	3745732.72	22.03580	(07072508)
477064.80	3746275.62	22.97216	(07081208)	476681.88	3747195.89	23.46462	(07122824)
478080.50	3746730.56	494.01647	(09050508)	478061.18	3746985.48	813.74910	(07102608)
478375.97	3747009.62	101.98855b	(10020708)	478314.17	3746847.40	166.83042	(08020224)
478166.25	3747511.58	85.86956	(09021208)	478593.58	3747910.42	28.14175b	(10042008)
478741.65	3747610.66	34.52569	(11040808)	478124.08	3747953.76	37.73790	(07011708)
478800.07	3746766.89	38.55514	(08022424)	476744.03	3746652.46	18.72212	(08091208)
476399.72	3746690.72	14.63726	(08010224)				

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: GRM ***
INCLUDING SOURCE(S): AREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

** CONC OF CO IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	39.00879b	(10020708)	477850.17	3745739.17	26.90706	(09111024)
477468.29	3745732.72	25.76285	(07072508)	477064.80	3746275.62	25.47664	(07081208)
476681.88	3747195.89	26.03198	(07122824)	478756.45	3747340.45	39.00879b	(10020708)
477850.17	3745739.17	26.90706	(09111024)	477468.29	3745732.72	25.76285	(07072508)
477064.80	3746275.62	25.47664	(07081208)	476681.88	3747195.89	26.03198	(07122824)
478080.50	3746730.56	509.19233	(07111724)	478061.18	3746985.48	661.96341	(08012008)
478375.97	3747009.62	142.08106b	(10020708)	478314.17	3746847.40	196.87532	(08020224)
478166.25	3747511.58	95.24914	(09021208)	478593.58	3747910.42	34.74955b	(10042008)
478741.65	3747610.66	44.76099	(11040808)	478124.08	3747953.76	42.86894	(07011708)
478800.07	3746766.89	39.74024	(08022424)	476744.03	3746652.46	21.84765	(08010224)
476399.72	3746690.72	17.17095	(08010224)				

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF CO IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	NETWORK OF TYPE	GRID-ID
SITEPREP	HIGH 1ST HIGH VALUE IS	1283.72078	ON 10021508: AT (478061.18, 3746985.48, 448.00, 448.00, 0.00)	DC	
GRADING	HIGH 1ST HIGH VALUE IS	1086.95467	ON 07090219: AT (478061.18, 3746985.48, 448.00, 448.00, 0.00)	DC	
SPM	HIGH 1ST HIGH VALUE IS	1043.86810	ON 07083124: AT (478061.18, 3746985.48, 448.00, 448.00, 0.00)	DC	
GRM	HIGH 1ST HIGH VALUE IS	754.70634	ON 07090219: AT (478061.18, 3746985.48, 448.00, 448.00, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF CO IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	NETWORK OF TYPE	GRID-ID
SITEPREP	1ST HIGH VALUE IS	181.33567m	ON 11012408: AT (478061.18, 3746985.48, 448.00, 448.00, 0.00)	DC	
GRADING	1ST HIGH VALUE IS	953.38304	ON 08012008: AT (478061.18, 3746985.48, 448.00, 448.00, 0.00)	DC	
SPM	1ST HIGH VALUE IS	813.74910	ON 07102608: AT (478061.18, 3746985.48, 448.00, 448.00, 0.00)	DC	
GRM	1ST HIGH VALUE IS	661.96341	ON 08012008: AT (478061.18, 3746985.48, 448.00, 448.00, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\CO\CO.isc ***
07/07/16
*** AERMET - VERSION 14134 *** *** ***
15:39:54

PAGE 19
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 1895 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 90 Calm Hours Identified

A Total of 1805 Missing Hours Identified (4.12 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 7/7/2016
** File: C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.isc
   MODELOPT CONC OLM
   AVERTIME 1
   URBANOPT 2100516
   POLLUTID NO2 H1H
   RUNORNOT RUN
** NO2 Conversion Options
   NO2STACK 0.100
   NO2EQUIL 0.900
   OZONEFIL U:\UcJobs\_09600-10000\_09900\09913\PERI_Ozone\O3PERI2007.prn UG/M3
   ERRORFIL NO2.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION AREA1        AREA       477998.480  3746825.480      448.000
** DESCRSRC Unmitigated
   LOCATION AREA2        AREA       477988.158  3746769.740      448.000
** DESCRSRC Unmitigated
   LOCATION AREA3        AREA       477998.480  3746825.480      448.000
** DESCRSRC Mitigated
   LOCATION AREA4        AREA       477988.158  3746769.740      448.000
** DESCRSRC Mitigated
** Source Parameters **
   SRCPARAM AREA1        0.0001317608     0.000   110.185   110.185     0.000     1.000
   SRCPARAM AREA2        0.0000792767     0.000   179.930   179.930     0.000     1.000
   SRCPARAM AREA3        0.000054255     0.000   110.185   110.185     0.000     1.000
   SRCPARAM AREA4        0.0000372788     0.000   179.930   179.930     0.000     1.000
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Construction"
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT AREA1        HROFDY 1.0 1.0 1.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP SitePrep AREA1
   SRCGROUP Grading  AREA2
   SRCGROUP SPM      AREA3
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
   SRCGROUP GRM      AREA4
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED NO2.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\..\..\peri8.sfc
   PROFFILE ..\..\..\peri8.pfl
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
   STARTEND 2007 1 1 1 2007 12 31 24
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 SitePrep 1ST NO2.AD\01H1G001.PLT 31
   PLOTFILE 1 Grading 1ST NO2.AD\01H1G002.PLT 32
   PLOTFILE 1 SPM 1ST NO2.AD\01H1G003.PLT 33
   PLOTFILE 1 GRM 1ST NO2.AD\01H1G004.PLT 34
   SUMMFILE NO2.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 CO W276      23       POLLID: Special proc for 1h-NO2/SO2 24hPM25 NAAQS disabled      NO2 H1H
 CO W271      30       COCARD: O3FILE w/o O3VALs; full conv for hrs with miss O3

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.isc              ***
    07/07/16
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

*** AERMET - VERSION 14134 *** *** ***
14:33:09

PAGE 1
**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** MODEL SETUP OPTIONS SUMMARY ***

- - - -

CO
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 442.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.5 MB of RAM.

**Detailed Error/Message File: NO2.err

**File for Summary of Results: NO2.sum

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.isc *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 14:33:09

PAGE 2
**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	COORD (SW CORNER) Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
AREA1	0	0.13176E-03	477998.5	3746825.5	448.0	0.00	110.18	110.18	0.00	1.00	YES	HROFDY
AREA2	0	0.79277E-04	477988.2	3746769.7	448.0	0.00	179.93	179.93	0.00	1.00	YES	
AREA3	0	0.54255E-04	477998.5	3746825.5	448.0	0.00	110.18	110.18	0.00	1.00	YES	
AREA4	0	0.37279E-04	477988.2	3746769.7	448.0	0.00	179.93	179.93	0.00	1.00	YES	

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.isc *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 14:33:09

PAGE 3
**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
SITEPREP	AREA1 ,
GRADING	AREA2 ,
SPM	AREA3 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
GRM AREA4 ,
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.isc ***
07/07/16
*** AERMET - VERSION 14134 *** *** ***
14:33:09

PAGE 4
**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID URBAN POP SOURCE IDs
-------- --------- ----------

2100516. AREA1 , AREA2 , AREA3 , AREA4 ,
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.isc ***
07/07/16
*** AERMET - VERSION 14134 *** *** ***
14:33:09

PAGE 5
**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** IN-STACK NO2 RATIOS FOR OLM/PVMRM OPTIONS ***

SOURCE_ID NO2_RATIO SOURCE_ID NO2_RATIO SOURCE_ID NO2_RATIO SOURCE_ID NO2_RATIO

AREA1 0.100 AREA2 0.100 AREA3 0.100 AREA4 0.100
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.isc ***
07/07/16
*** AERMET - VERSION 14134 *** *** ***
14:33:09

PAGE 6
**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

CO
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
     ( 478756.5, 3747340.4,     448.0,     448.0,       0.0);         ( 477850.2, 3745739.2,     448.0,     448.0,
     0.0);
     ( 477468.3, 3745732.7,     450.0,     450.0,       0.0);         ( 477064.8, 3746275.6,     452.0,     452.0,
     0.0);
     ( 476681.9, 3747195.9,     453.0,     453.0,       0.0);         ( 478756.5, 3747340.4,     448.0,     448.0,
     0.0);
     ( 477850.2, 3745739.2,     448.0,     448.0,       0.0);         ( 477468.3, 3745732.7,     450.0,     450.0,
     0.0);
     ( 477064.8, 3746275.6,     452.0,     452.0,       0.0);         ( 476681.9, 3747195.9,     453.0,     453.0,
     0.0);
     ( 478080.5, 3746730.6,     448.0,     448.0,       0.0);         ( 478061.2, 3746985.5,     448.0,     448.0,
     0.0);
     ( 478376.0, 3747009.6,     448.0,     448.0,       0.0);         ( 478314.2, 3746847.4,     447.2,     447.2,
     0.0);
     ( 478166.2, 3747511.6,     448.0,     448.0,       0.0);         ( 478593.6, 3747910.4,     449.0,     449.0,
     0.0);
     ( 478741.6, 3747610.7,     448.0,     448.0,       0.0);         ( 478124.1, 3747953.8,     450.0,     450.0,
     0.0);
     ( 478800.1, 3746766.9,     446.0,     446.0,       0.0);         ( 476744.0, 3746652.5,     454.0,     454.0,
     0.0);
     ( 476399.7, 3746690.7,     457.0,     457.0,       0.0);

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.isc             ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   14:33:09

   PAGE   8
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN

                                  *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                     METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2007   1  1  1
                                                      AND END DATE: 2007  12 31 24

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA
FILE.


                                *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                (METERS/SEC)

                                                1.54,   3.09,   5.14,   8.23,  10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.isc             ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
14:33:09

PAGE 9
**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\..\..\peri8.sfc Met Version: 14134
Profile file: ..\..\..\peri8.pfl
Surface format: FREE

Profile format: FREE

Surface station no.: 0 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2007 Year: 2007

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
07	01	01	1	01	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	133.	9.1	279.9	5.5
07	01	01	1	02	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	192.	9.1	279.2	5.5
07	01	01	1	03	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	160.	9.1	277.5	5.5
07	01	01	1	04	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	75.	9.1	277.5	5.5
07	01	01	1	05	-0.6	0.026	-9.000	-9.000	-999.	10.	2.6	0.19	1.00	1.00	0.50	282.	9.1	278.8	5.5
07	01	01	1	06	-0.6	0.026	-9.000	-9.000	-999.	10.	2.6	0.19	1.00	1.00	0.50	96.	9.1	277.5	5.5
07	01	01	1	07	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	129.	9.1	278.1	5.5
07	01	01	1	08	-0.4	0.026	-9.000	-9.000	-999.	10.	3.7	0.19	1.00	0.54	0.50	99.	9.1	277.5	5.5
07	01	01	1	09	27.8	0.091	0.542	0.005	196.	66.	-2.3	0.19	1.00	0.33	0.50	133.	9.1	278.1	5.5
07	01	01	1	10	76.9	0.104	1.050	0.005	516.	81.	-1.3	0.19	1.00	0.26	0.50	174.	9.1	281.4	5.5
07	01	01	1	11	110.0	0.109	1.374	0.009	810.	87.	-1.0	0.19	1.00	0.23	0.50	95.	9.1	284.9	5.5
07	01	01	1	12	125.7	0.201	1.589	0.018	1095.	216.	-5.5	0.19	1.00	0.22	1.30	94.	9.1	288.1	5.5
07	01	01	1	13	121.7	0.287	1.641	0.022	1248.	369.	-16.6	0.19	1.00	0.22	2.20	24.	9.1	291.4	5.5
07	01	01	1	14	102.8	0.414	1.559	0.021	1265.	639.	-59.1	0.19	1.00	0.23	3.60	13.	9.1	292.5	5.5
07	01	01	1	15	69.9	0.619	1.374	0.021	1276.	1169.	-291.2	0.19	1.00	0.27	5.80	318.	9.1	292.0	5.5
07	01	01	1	16	16.8	0.607	0.856	0.021	1277.	1135.	-1137.8	0.19	1.00	0.36	5.80	329.	9.1	291.4	5.5
07	01	01	1	17	-42.2	0.437	-9.000	-9.000	-999.	720.	169.3	0.19	1.00	0.64	4.50	333.	9.1	289.9	5.5
07	01	01	1	18	-18.5	0.353	-9.000	-9.000	-999.	510.	204.1	0.19	1.00	1.00	3.60	305.	9.1	288.8	5.5
07	01	01	1	19	-42.3	0.437	-9.000	-9.000	-999.	692.	168.7	0.19	1.00	1.00	4.50	276.	9.1	287.5	5.5
07	01	01	1	20	-32.3	0.334	-9.000	-9.000	-999.	470.	98.6	0.19	1.00	1.00	3.60	323.	9.1	287.5	5.5
07	01	01	1	21	-36.7	0.380	-9.000	-9.000	-999.	562.	128.3	0.19	1.00	1.00	4.00	322.	9.1	288.1	5.5
07	01	01	1	22	-45.6	0.434	-9.000	-9.000	-999.	685.	153.6	0.19	1.00	1.00	4.50	30.	9.1	288.1	5.5

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                    CO
 07 01 01    1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00   1.00    4.00  343.    9.1  287.0
 5.5
 07 01 01    1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00   1.00    1.80  155.    9.1  283.8
 5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.isc              ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   14:33:09

   PAGE  10
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN

                            *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:
SITEPREP ***
                                INCLUDING SOURCE(S):     AREA1       ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                     ** CONC OF NO2      IN MICROGRAMS/M**3                          **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)  Y-COORD (M)        CONC
(YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -
        478756.45   3747340.45       17.20344  (07010408)               477850.17   3745739.17        7.32421
(07102710)
        477468.29   3745732.72       47.75382  (07120308)               477064.80   3746275.62       52.50071
(07121208)
        476681.88   3747195.89       77.34312  (07010108)               478756.45   3747340.45       17.20344
(07010408)
        477850.17   3745739.17        7.32421  (07102710)               477468.29   3745732.72       47.75382
(07120308)
        477064.80   3746275.62       52.50071  (07121208)               476681.88   3747195.89       77.34312
(07010108)
        478080.50   3746730.56      194.04752  (07012808)               478061.18   3746985.48      243.31846
(07012608)
        478375.97   3747009.62      105.96875  (07010408)               478314.17   3746847.40       97.80733
(07020208)
        478166.25   3747511.58       80.80628  (07111108)               478593.58   3747910.42       57.92518
(07121008)
        478741.65   3747610.66       36.11654  (07112908)               478124.08   3747953.76       57.00723
(07012608)
        478800.07   3746766.89       20.42561  (07020208)               476744.03   3746652.46       54.40241
(07121708)
        476399.72   3746690.72       46.67911  (07121708)

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.isc              ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   14:33:09

   PAGE  11
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN

                            *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  GRADING
 ***
                                INCLUDING SOURCE(S):     AREA2       ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS ***
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

** CONC OF NO2 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	113.42023	(07091604)	477850.17	3745739.17	102.06404	(07072924)
477468.29	3745732.72	98.88737	(07072505)	477064.80	3746275.62	101.65865	(07082102)
476681.88	3747195.89	95.96107	(07083003)	478756.45	3747340.45	113.42023	(07091604)
477850.17	3745739.17	102.06404	(07072924)	477468.29	3745732.72	98.88737	(07072505)
477064.80	3746275.62	101.65865	(07082102)	476681.88	3747195.89	95.96107	(07083003)
478080.50	3746730.56	261.20704	(07081721)	478061.18	3746985.48	269.00465	(07090219)
478375.97	3747009.62	165.86881	(07090101)	478314.17	3746847.40	184.06300	(07081923)
478166.25	3747511.58	122.83593	(07081404)	478593.58	3747910.42	101.52958	(07082104)
478741.65	3747610.66	106.36111	(07102704)	478124.08	3747953.76	103.41168	(07072305)
478800.07	3746766.89	118.11829	(07061704)	476744.03	3746652.46	97.46564	(07081904)
476399.72	3746690.72	93.26481	(07070203)				

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.isc *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 14:33:09

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**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SPM ***
INCLUDING SOURCE(S): AREA3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF NO2 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	86.60588	(07062601)	477850.17	3745739.17	69.45742	(07081603)
477468.29	3745732.72	60.54650	(07072502)	477064.80	3746275.62	68.81962	(07081202)
476681.88	3747195.89	54.47106	(07083003)	478756.45	3747340.45	86.60588	(07062601)
477850.17	3745739.17	69.45742	(07081603)	477468.29	3745732.72	60.54650	(07072502)
477064.80	3746275.62	68.81962	(07081202)	476681.88	3747195.89	54.47106	(07083003)
478080.50	3746730.56	137.49093	(07072605)	478061.18	3746985.48	159.66290	(07083124)
478375.97	3747009.62	106.35495	(07090103)	478314.17	3746847.40	114.35864	(07061704)
478166.25	3747511.58	90.83741	(07083124)	478593.58	3747910.42	68.60028	(07061401)
478741.65	3747610.66	82.91729	(07091521)	478124.08	3747953.76	76.25731	(07070524)

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
478800.07 3746766.89 88.18647 (07062123) 476744.03 3746652.46 57.60011 (07071805)
476399.72 3746690.72 45.98158 (07091304)

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.isc *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 14:33:09

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**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: GRM ***
INCLUDING SOURCE(S): AREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF NO2 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	93.13723	(07091604)	477850.17	3745739.17	87.79714	(07072924)
477468.29	3745732.72	86.30335	(07072505)	477064.80	3746275.62	87.60651	(07082102)
476681.88	3747195.89	84.92729	(07083003)	478756.45	3747340.45	93.13723	(07091604)
477850.17	3745739.17	87.79714	(07072924)	477468.29	3745732.72	86.30335	(07072505)
477064.80	3746275.62	87.60651	(07082102)	476681.88	3747195.89	84.92729	(07083003)
478080.50	3746730.56	162.63199	(07081721)	478061.18	3746985.48	166.29871	(07090219)
478375.97	3747009.62	117.80047	(07090101)	478314.17	3746847.40	126.35604	(07081923)
478166.25	3747511.58	97.56484	(07081404)	478593.58	3747910.42	87.54581	(07082104)
478741.65	3747610.66	89.81777	(07102704)	478124.08	3747953.76	88.43085	(07072305)
478800.07	3746766.89	95.34643	(07061704)	476744.03	3746652.46	85.63480	(07081904)
476399.72	3746690.72	76.73474	(07070203)				

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.isc *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 14:33:09

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**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF NO2 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	NETWORK OF TYPE	GRID-ID
SITEPREP HIGH	1ST HIGH VALUE IS	243.31846	ON 07012608: AT (478061.18, 3746985.48, 448.00, 448.00,		

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
0.00) DC

GRADING HIGH   1ST HIGH VALUE IS   269.00465 ON 07090219: AT (478061.18, 3746985.48,   448.00,   448.00,
0.00) DC

SPM   HIGH   1ST HIGH VALUE IS   159.66290 ON 07083124: AT (478061.18, 3746985.48,   448.00,   448.00,
0.00) DC

GRM   HIGH   1ST HIGH VALUE IS   166.29871 ON 07090219: AT (478061.18, 3746985.48,   448.00,   448.00,
0.00) DC

 *** RECEPTOR TYPES: GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION 15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\NO2\NO2.isc   ***
    07/07/16
 *** AERMET - VERSION 14134 ***   ***   ***
   14:33:09

   PAGE 15
 **MODELOPTs: NonDFAULT CONC   ELEV   OLM   URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of   0 Fatal Error Message(s)
 A Total of   2 Warning Message(s)
 A Total of   124 Informational Message(s)

 A Total of   8760 Hours Were Processed

 A Total of   0 Calm Hours Identified

 A Total of   124 Missing Hours Identified (1.42 Percent)

    ******** FATAL ERROR MESSAGES ********
               *** NONE ***

    ********   WARNING MESSAGES   ********
 CO W276   23   POLLID: Special proc for 1h-NO2/SO2 24hPM25 NAAQS disabled   NO2 H1H
 CO W271   30   COCARD: O3FILE w/o O3VALs; full conv for hrs with miss O3

    ****
    *** AERMOD Finishes Successfully ***
    ****

**
****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 7/7/2016
** File: C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM10\PM10.ADI
**
****
**
**
****
** AERMOD Control Pathway
****
**

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM10\PM10.isc
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 2100516
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL PM10.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION AREA1        AREA       477998.480  3746825.480      448.000
   LOCATION AREA2        AREA       477988.158  3746769.740      448.000
   LOCATION AREA3        AREA       477998.480  3746825.480      448.000
** DESCRSRC Site Prep Mitigated
   LOCATION AREA4        AREA       477988.158  3746769.740      448.000
** DESCRSRC Grading Mitigated
** Source Parameters **
   SRCPARAM AREA1        0.0000385462     0.000   110.185   110.185     0.000     1.000
   SRCPARAM AREA2        0.000013044     0.000   179.930   179.930     0.000     1.000
   SRCPARAM AREA3        0.0000149168     0.000   110.185   110.185     0.000     1.000
   SRCPARAM AREA4        4.925E-06     0.000   179.930   179.930     0.000     1.000
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Construction"
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT AREA1        HROFDY 1.0 1.0 1.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP SitePrep AREA1
   SRCGROUP Grading  AREA2
   SRCGROUP SPM      AREA3
   SRCGROUP GRM      AREA4
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED PM10.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\..\..\peri8.sfc
   PROFFILE ..\..\..\peri8.PFL
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 SitePrep 1ST PM10.AD\24H1G001.PLT 31
   PLOTFILE 24 Grading 1ST PM10.AD\24H1G002.PLT 32
   PLOTFILE 24 SPM 1ST PM10.AD\24H1G003.PLT 33
   PLOTFILE 24 GRM 1ST PM10.AD\24H1G004.PLT 34
   SUMMFILE PM10.sum
OU FINISHED

 *********************************
 *** SETUP Finishes Successfully ***
 *********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM10\PM10.isc            ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   16:03:57

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for     4 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates  1 Short Term Average(s) of:  24-HR

 **This Run Includes:      4 Source(s);       4 Source Group(s); and       5 Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      4 AREA type source(s)
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                  Emission Units = GRAMS/SEC                           ;  Emission Rate Unit Factor =
0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Detailed Error/Message File:   PM10.err

 **File for Summary of Results:   PM10.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM10\PM10.isc           ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   16:03:57

   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** AREA SOURCE DATA ***

              NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM     Y-DIM    ORIENT.    INIT.
URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT  OF AREA   OF AREA   OF AREA     SZ
SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)  (METERS)   (DEG.)  (METERS)
       BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

 AREA1           0   0.38546E-04  477998.5 3746825.5   448.0     0.00    110.18    110.18      0.00     1.00
YES   HROFDY
 AREA2           0   0.13044E-04  477988.2 3746769.7   448.0     0.00    179.93    179.93      0.00     1.00
YES
 AREA3           0   0.14917E-04  477998.5 3746825.5   448.0     0.00    110.18    110.18      0.00     1.00
YES
 AREA4           0   0.49250E-05  477988.2 3746769.7   448.0     0.00    179.93    179.93      0.00     1.00
YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM10\PM10.isc           ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   16:03:57

   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                     *** SOURCE IDs DEFINING SOURCE GROUPS ***
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

SRCGROUP ID — SOURCE IDs

SITEPREP AREA1 ,
GRADING AREA2 ,
SPM AREA3 ,
GRM AREA4 ,

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID — URBAN POP — SOURCE IDs

2100516. AREA1 , AREA2 , AREA3 , AREA4 ,

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = AREA1 ; SOURCE TYPE = AREA :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(478756.5, 3747340.4, 448.0, 448.0, 0.0); (477850.2, 3745739.2, 448.0, 448.0,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
0.0);
(477468.3, 3745732.7, 450.0, 450.0, 0.0); (477064.8, 3746275.6, 452.0, 452.0,
0.0);
(476681.9, 3747195.9, 453.0, 453.0, 0.0);

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM10\PM10.isc ***
07/07/16
*** AERMET - VERSION 14134 *** *** ***
16:03:57

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1

CO

```
07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  133.    9.1  279.9
5.5
07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  192.    9.1  279.2
5.5
07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  160.    9.1  277.5
5.5
07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50   75.    9.1  277.5
5.5
07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00   1.00    0.50  282.    9.1  278.8
5.5
07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00   1.00    0.50   96.    9.1  277.5
5.5
07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  129.    9.1  278.1
5.5
07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00   0.54    0.50   99.    9.1  277.5
5.5
07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00   0.33    0.50  133.    9.1  278.1
5.5
07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00   0.26    0.50  174.    9.1  281.4
5.5
07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00   0.23    0.50   95.    9.1  284.9
5.5
07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00   0.22    1.30   94.    9.1  288.1
5.5
07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00   0.22    2.20   24.    9.1  291.4
5.5
07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00   0.23    3.60   13.    9.1  292.5
5.5
07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00   0.27    5.80  318.    9.1  292.0
5.5
07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00   0.36    5.80  329.    9.1  291.4
5.5
07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00   0.64    4.50  333.    9.1  289.9
5.5
07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00   1.00    3.60  305.    9.1  288.8
5.5
07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00   1.00    4.50  276.    9.1  287.5
5.5
07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00   1.00    3.60  323.    9.1  287.5
5.5
07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00   1.00    4.00  322.    9.1  288.1
5.5
07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00   1.00    4.50   30.    9.1  288.1
5.5
07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00   1.00    4.00  343.    9.1  287.0
5.5
07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00   1.00    1.80  155.    9.1  283.8
5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM10\PM10.isc            ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   16:03:57

   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:
SITEPREP ***
                                  INCLUDING SOURCE(S):     AREA1       ,
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
478756.45	3747340.45	3.45995	(09012324)	477850.17	3745739.17	1.76849m (11010224)
477468.29	3745732.72	1.94481	(08120324)	477064.80	3746275.62	2.20415 (08010424)
476681.88	3747195.89	1.72816	(07120224)			

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM10\PM10.isc *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 16:03:57

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: GRADING ***
INCLUDING SOURCE(S): AREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
478756.45	3747340.45	7.67039	(09113024)	477850.17	3745739.17	4.66652 (10073024)
477468.29	3745732.72	3.64379	(07072524)	477064.80	3746275.62	4.24385 (07030124)
476681.88	3747195.89	3.74847	(07122824)			

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM10\PM10.isc *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 16:03:57

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SPM ***
INCLUDING SOURCE(S): AREA3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
478756.45	3747340.45	3.15963	(09113024)	477850.17	3745739.17	2.37270 (07081624)
477468.29	3745732.72	1.65162	(09111524)	477064.80	3746275.62	1.74287 (07081224)
476681.88	3747195.89	1.77270	(07122824)			

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM10\PM10.isc *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 16:03:57

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: GRM ***
INCLUDING SOURCE(S): AREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	2.89610	(09113024)	477850.17	3745739.17	1.76193	(10073024)
477468.29	3745732.72	1.37578	(07072524)	477064.80	3746275.62	1.60234	(07030124)
476681.88	3747195.89	1.41530	(07122824)				

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM10\PM10.isc *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 16:03:57

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF NETWORK TYPE GRID-ID
SITEPREP	HIGH 1ST HIGH VALUE IS	3.45995	ON 09012324: AT (478756.45, 3747340.45, 448.00, 448.00, 0.00) DC
GRADING	HIGH 1ST HIGH VALUE IS	7.67039	ON 09113024: AT (478756.45, 3747340.45, 448.00, 448.00, 0.00) DC
SPM	HIGH 1ST HIGH VALUE IS	3.15963	ON 09113024: AT (478756.45, 3747340.45, 448.00, 448.00, 0.00) DC
GRM	HIGH 1ST HIGH VALUE IS	2.89610	ON 09113024: AT (478756.45, 3747340.45, 448.00, 448.00, 0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM10\PM10.isc *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 16:03:57

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
  PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of         1895 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of           90 Calm Hours Identified

 A Total of         1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 7/7/2016
** File: C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM25\PM25.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM25\PM25.isc
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 2100516
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL PM25.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION AREA1        AREA       477998.480  3746825.480      448.000
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                    CO
   LOCATION AREA2        AREA       477988.158  3746769.740      448.000
   LOCATION AREA3        AREA       477998.480  3746825.480      448.000
** DESCRSRC Site Prep Mitigated
   LOCATION AREA4        AREA       477988.158  3746769.740      448.000
** DESCRSRC Grading Mitigated
** Source Parameters **
   SRCPARAM AREA1        0.0000227734     0.000   110.185   110.185     0.000     1.000
   SRCPARAM AREA2        6.894E-06     0.000   179.930   179.930     0.000     1.000
   SRCPARAM AREA3         8.95E-06     0.000   110.185   110.185     0.000     1.000
   SRCPARAM AREA4        2.6378E-06     0.000   179.930   179.930     0.000     1.000
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Construction"
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT AREA1        HROFDY 1.0 1.0 1.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP SitePrep AREA1
   SRCGROUP Grading  AREA2
   SRCGROUP SPM      AREA3
   SRCGROUP GRM      AREA4
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED PM25.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\..\..\peri8.sfc
   PROFFILE ..\..\..\peri8.PFL
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 SitePrep 1ST PM25.AD\24H1G001.PLT 31
   PLOTFILE 24 Grading 1ST PM25.AD\24H1G002.PLT 32
   PLOTFILE 24 SPM 1ST PM25.AD\24H1G003.PLT 33
   PLOTFILE 24 GRM 1ST PM25.AD\24H1G004.PLT 34
   SUMMFILE PM25.sum
OU FINISHED

 *********************************
 *** SETUP Finishes Successfully ***
 *********************************
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                                    CO
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM25\PM25.isc            ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   16:12:12

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for     4 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_2.5

 **Model Calculates  1 Short Term Average(s) of:  24-HR

 **This Run Includes:      4 Source(s);       4 Source Group(s); and       5 Receptor(s)

               with:      0 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:      0 VOLUME source(s)
                and:      4 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                  Emission Units = GRAMS/SEC                              ;  Emission Rate Unit Factor =
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.5 MB of RAM.

**Detailed Error/Message File: PM25.err

**File for Summary of Results: PM25.sum

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM25\PM25.isc *** *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 16:12:12

PAGE 2
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE SCALAR VARY BY
AREA1	0	0.22773E-04	477998.5	3746825.5	448.0	0.00	110.18	110.18	0.00	1.00	YES HROFDY
AREA2	0	0.68940E-05	477988.2	3746769.7	448.0	0.00	179.93	179.93	0.00	1.00	YES
AREA3	0	0.89500E-05	477998.5	3746825.5	448.0	0.00	110.18	110.18	0.00	1.00	YES
AREA4	0	0.26378E-05	477988.2	3746769.7	448.0	0.00	179.93	179.93	0.00	1.00	YES

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM25\PM25.isc *** *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 16:12:12

PAGE 3
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
SITEPREP	AREA1 ,
GRADING	AREA2 ,
SPM	AREA3 ,
GRM	AREA4 ,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM25\PM25.isc *** *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 16:12:12

PAGE 4
**MODELOPTs: RegDFAULT CONC ELEV URBAN

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
2100516.	AREA1 , AREA2 , AREA3 , AREA4 ,	

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = AREA1 ; SOURCE TYPE = AREA :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(478756.5, 3747340.4, 448.0, 448.0, 0.0); (477850.2, 3745739.2, 448.0, 448.0, 0.0);
(477468.3, 3745732.7, 450.0, 450.0, 0.0); (477064.8, 3746275.6, 452.0, 452.0, 0.0);
(476681.9, 3747195.9, 453.0, 453.0, 0.0);

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1

```
                                                  CO
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

              NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA
FILE.


                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                       (METERS/SEC)

                                                  1.54,   3.09,   5.14,   8.23,  10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM25\PM25.isc            ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   16:12:12

   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   ..\..\..\peri8.sfc                                                          Met Version:
14134
   Profile file:   ..\..\..\peri8.PFL
   Surface format: FREE

   Profile format: FREE

   Surface station no.:        0                 Upper air station no.:     3190
                  Name: UNKNOWN                                 Name: UNKNOWN
                  Year:   2007                                  Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF TA
  HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - -
 07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  133.    9.1  279.9
 5.5
 07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  192.    9.1  279.2
 5.5
 07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  160.    9.1  277.5
 5.5
 07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50   75.    9.1  277.5
 5.5
 07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00   1.00    0.50  282.    9.1  278.8
 5.5
 07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00   1.00    0.50   96.    9.1  277.5
 5.5
 07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  129.    9.1  278.1
 5.5
 07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00   0.54    0.50   99.    9.1  277.5
 5.5
 07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00   0.33    0.50  133.    9.1  278.1
 5.5
 07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00   0.26    0.50  174.    9.1  281.4
 5.5
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                                CO
 07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00   0.23    0.50   95.    9.1  284.9
 5.5
 07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00   0.22    1.30   94.    9.1  288.1
 5.5
 07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00   0.22    2.20   24.    9.1  291.4
 5.5
 07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00   0.23    3.60   13.    9.1  292.5
 5.5
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00   0.27    5.80  318.    9.1  292.0
 5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00   0.36    5.80  329.    9.1  291.4
 5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00   0.64    4.50  333.    9.1  289.9
 5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00   1.00    3.60  305.    9.1  288.8
 5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00   1.00    4.50  276.    9.1  287.5
 5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00   1.00    3.60  323.    9.1  287.5
 5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00   1.00    4.00  322.    9.1  288.1
 5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00   1.00    4.50   30.    9.1  288.1
 5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00   1.00    4.00  343.    9.1  287.0
 5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00   1.00    1.80  155.    9.1  283.8
 5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM25\PM25.isc            ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   16:12:12

   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:
SITEPREP ***
                                INCLUDING SOURCE(S):     AREA1       ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                      ** CONC OF PM_2.5   IN MICROGRAMS/M**3                          **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)  Y-COORD (M)        CONC
(YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - -
        478756.45   3747340.45        2.04416  (09012324)               477850.17   3745739.17        1.04484m
(11010224)
        477468.29   3745732.72        1.14901  (08120324)               477064.80   3746275.62        1.30223
(08010424)
        476681.88   3747195.89        1.02101  (07120224)

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM25\PM25.isc            ***
    07/07/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   16:12:12
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

PAGE 10
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: GRADING ***
INCLUDING SOURCE(S): AREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	4.05395	(09113024)	477850.17	3745739.17	2.46634	(10073024)
477468.29	3745732.72	1.92581	(07072524)	477064.80	3746275.62	2.24295	(07030124)
476681.88	3747195.89	1.98114	(07122824)				

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM25\PM25.isc *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 16:12:12

PAGE 11
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: SPM ***
INCLUDING SOURCE(S): AREA3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	1.89576	(09113024)	477850.17	3745739.17	1.42361	(07081624)
477468.29	3745732.72	0.99097	(09111524)	477064.80	3746275.62	1.04571	(07081224)
476681.88	3747195.89	1.06361	(07122824)				

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM25\PM25.isc *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 16:12:12

PAGE 12
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: GRM ***
INCLUDING SOURCE(S): AREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
478756.45 3747340.45 1.55113 (09113024) 477850.17 3745739.17 0.94368 (10073024)
477468.29 3745732.72 0.73686 (07072524) 477064.80 3746275.62 0.85820 (07030124)
476681.88 3747195.89 0.75803 (07122824)

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM25\PM25.isc *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 16:12:12

PAGE 13
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	NETWORK OF TYPE	GRID-ID
SITEPREP HIGH	1ST HIGH VALUE IS	2.04416	ON 09012324: AT (478756.45, 3747340.45, 448.00, 448.00, 0.00)	DC	
GRADING HIGH	1ST HIGH VALUE IS	4.05395	ON 09113024: AT (478756.45, 3747340.45, 448.00, 448.00, 0.00)	DC	
SPM HIGH	1ST HIGH VALUE IS	1.89576	ON 09113024: AT (478756.45, 3747340.45, 448.00, 448.00, 0.00)	DC	
GRM HIGH	1ST HIGH VALUE IS	1.55113	ON 09113024: AT (478756.45, 3747340.45, 448.00, 448.00, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Construction\PM25\PM25.isc *** 07/07/16
*** AERMET - VERSION 14134 *** *** *** 16:12:12

PAGE 14
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 1895 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 90 Calm Hours Identified

A Total of 1805 Missing Hours Identified (4.12 Percent)

******** FATAL ERROR MESSAGES ********

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

```
          ***  NONE  ***


********   WARNING MESSAGES   ********
          ***  NONE  ***


***********************************
*** AERMOD Finishes Successfully ***
***********************************
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 7/8/2016
** File: C:\Lakes\AERMOD View\ISCC\LSTs\Operations\CO\CO.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\ISCC\LSTs\Operations\CO\CO.isc
   MODELOPT DFAULT CONC
   AVERTIME 1 8
   URBANOPT 2100516
   POLLUTID CO
   RUNORNOT RUN
   ERRORFIL CO.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling (Trucks)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.01157
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477923.678, 3746810.357, 448.00, 0.00, 3.95
** 478177.247, 3746809.187, 448.00, 0.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0004593     VOLUME   477927.928 3746810.338 448.00
   LOCATION L0004594     VOLUME   477936.428 3746810.298 448.00
   LOCATION L0004595     VOLUME   477944.928 3746810.259 448.00
   LOCATION L0004596     VOLUME   477953.428 3746810.220 448.00
   LOCATION L0004597     VOLUME   477961.928 3746810.181 448.00
   LOCATION L0004598     VOLUME   477970.428 3746810.142 448.00
   LOCATION L0004599     VOLUME   477978.928 3746810.102 448.00
   LOCATION L0004600     VOLUME   477987.428 3746810.063 448.00
   LOCATION L0004601     VOLUME   477995.928 3746810.024 448.00
   LOCATION L0004602     VOLUME   478004.428 3746809.985 448.00
   LOCATION L0004603     VOLUME   478012.927 3746809.946 448.00
   LOCATION L0004604     VOLUME   478021.427 3746809.906 448.00
   LOCATION L0004605     VOLUME   478029.927 3746809.867 448.00
   LOCATION L0004606     VOLUME   478038.427 3746809.828 448.00
   LOCATION L0004607     VOLUME   478046.927 3746809.789 448.00
   LOCATION L0004608     VOLUME   478055.427 3746809.749 448.00
   LOCATION L0004609     VOLUME   478063.927 3746809.710 448.00
   LOCATION L0004610     VOLUME   478072.427 3746809.671 448.00
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                        CO
   LOCATION L0004611     VOLUME   478080.927 3746809.632 448.00
   LOCATION L0004612     VOLUME   478089.427 3746809.593 448.00
   LOCATION L0004613     VOLUME   478097.927 3746809.553 448.00
   LOCATION L0004614     VOLUME   478106.426 3746809.514 448.00
   LOCATION L0004615     VOLUME   478114.926 3746809.475 448.00
   LOCATION L0004616     VOLUME   478123.426 3746809.436 448.00
   LOCATION L0004617     VOLUME   478131.926 3746809.396 448.00
   LOCATION L0004618     VOLUME   478140.426 3746809.357 448.00
   LOCATION L0004619     VOLUME   478148.926 3746809.318 448.00
   LOCATION L0004620     VOLUME   478157.426 3746809.279 448.00
   LOCATION L0004621     VOLUME   478165.926 3746809.240 448.00
   LOCATION L0004622     VOLUME   478174.426 3746809.200 448.00
** End of LINE VOLUME Source ID = SLINE6
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel (Trucks)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00424
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 478271.074, 3746792.209, 447.08, 0.00, 3.95
** 478177.349, 3746791.961, 448.00, 0.00, 3.95
** 477890.952, 3746791.463, 448.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0004623     VOLUME   478266.824 3746792.198 447.05
   LOCATION L0004624     VOLUME   478258.324 3746792.175 447.21
   LOCATION L0004625     VOLUME   478249.824 3746792.153 447.36
   LOCATION L0004626     VOLUME   478241.324 3746792.130 447.51
   LOCATION L0004627     VOLUME   478232.824 3746792.108 447.64
   LOCATION L0004628     VOLUME   478224.325 3746792.085 447.77
   LOCATION L0004629     VOLUME   478215.825 3746792.063 447.91
   LOCATION L0004630     VOLUME   478207.325 3746792.040 448.00
   LOCATION L0004631     VOLUME   478198.825 3746792.018 448.00
   LOCATION L0004632     VOLUME   478190.325 3746791.995 448.00
   LOCATION L0004633     VOLUME   478181.825 3746791.972 448.00
   LOCATION L0004634     VOLUME   478173.325 3746791.954 448.00
   LOCATION L0004635     VOLUME   478164.825 3746791.939 448.00
   LOCATION L0004636     VOLUME   478156.325 3746791.924 448.00
   LOCATION L0004637     VOLUME   478147.825 3746791.909 448.00
   LOCATION L0004638     VOLUME   478139.325 3746791.895 448.00
   LOCATION L0004639     VOLUME   478130.825 3746791.880 448.00
   LOCATION L0004640     VOLUME   478122.325 3746791.865 448.00
   LOCATION L0004641     VOLUME   478113.825 3746791.850 448.00
   LOCATION L0004642     VOLUME   478105.325 3746791.836 448.00
   LOCATION L0004643     VOLUME   478096.825 3746791.821 448.00
   LOCATION L0004644     VOLUME   478088.325 3746791.806 448.00
   LOCATION L0004645     VOLUME   478079.825 3746791.791 448.00
   LOCATION L0004646     VOLUME   478071.325 3746791.777 448.00
   LOCATION L0004647     VOLUME   478062.825 3746791.762 448.00
   LOCATION L0004648     VOLUME   478054.325 3746791.747 448.00
   LOCATION L0004649     VOLUME   478045.825 3746791.732 448.00
   LOCATION L0004650     VOLUME   478037.325 3746791.717 448.00
   LOCATION L0004651     VOLUME   478028.825 3746791.703 448.00
   LOCATION L0004652     VOLUME   478020.325 3746791.688 448.00
   LOCATION L0004653     VOLUME   478011.825 3746791.673 448.00
   LOCATION L0004654     VOLUME   478003.325 3746791.658 448.00
   LOCATION L0004655     VOLUME   477994.825 3746791.644 448.00
   LOCATION L0004656     VOLUME   477986.325 3746791.629 448.00
   LOCATION L0004657     VOLUME   477977.825 3746791.614 448.00
   LOCATION L0004658     VOLUME   477969.325 3746791.599 448.00
   LOCATION L0004659     VOLUME   477960.825 3746791.585 448.00
   LOCATION L0004660     VOLUME   477952.325 3746791.570 448.00
   LOCATION L0004661     VOLUME   477943.825 3746791.555 448.00
```

```
                                                        CO
   LOCATION L0004662     VOLUME   477935.325 3746791.540 448.00
   LOCATION L0004663     VOLUME   477926.825 3746791.526 448.00
   LOCATION L0004664     VOLUME   477918.325 3746791.511 448.00
   LOCATION L0004665     VOLUME   477909.825 3746791.496 448.00
   LOCATION L0004666     VOLUME   477901.325 3746791.481 448.00
   LOCATION L0004667     VOLUME   477892.825 3746791.467 448.00
** End of LINE VOLUME Source ID = SLINE7
   LOCATION STCK1        POINT      477935.000  3746812.710      448.000
** DESCRSRC TRU Idling
   LOCATION STCK2        POINT      477996.522  3746810.249      448.000
** DESCRSRC TRU Idling
   LOCATION STCK3        POINT      478082.653  3746811.233      448.000
** DESCRSRC TRU Idling
   LOCATION STCK4        POINT      478157.955  3746809.757      448.000
** DESCRSRC TRU Idling
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Idling (Passenger Cars)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00608
** Vertical Dimension = 1.00
** SZINIT = 0.47
** Nodes = 4
** 478222.532, 3746939.639, 448.00, 0.00, 3.95
** 478223.313, 3746815.882, 448.00, 0.00, 3.95
** 478246.737, 3746815.102, 447.79, 0.00, 3.95
** 478245.956, 3746948.618, 448.00, 0.00, 3.95
** ------------------------------------------------------------------
   LOCATION L0004668     VOLUME   478222.559 3746935.389 448.00
   LOCATION L0004669     VOLUME   478222.613 3746926.889 448.00
   LOCATION L0004670     VOLUME   478222.666 3746918.389 448.00
   LOCATION L0004671     VOLUME   478222.720 3746909.889 448.00
   LOCATION L0004672     VOLUME   478222.774 3746901.389 448.00
   LOCATION L0004673     VOLUME   478222.827 3746892.889 448.00
   LOCATION L0004674     VOLUME   478222.881 3746884.390 448.00
   LOCATION L0004675     VOLUME   478222.935 3746875.890 448.00
   LOCATION L0004676     VOLUME   478222.988 3746867.390 448.00
   LOCATION L0004677     VOLUME   478223.042 3746858.890 448.00
   LOCATION L0004678     VOLUME   478223.095 3746850.390 448.00
   LOCATION L0004679     VOLUME   478223.149 3746841.890 448.00
   LOCATION L0004680     VOLUME   478223.203 3746833.391 448.00
   LOCATION L0004681     VOLUME   478223.256 3746824.891 448.00
   LOCATION L0004682     VOLUME   478223.310 3746816.391 448.00
   LOCATION L0004683     VOLUME   478231.300 3746815.616 448.00
   LOCATION L0004684     VOLUME   478239.795 3746815.333 448.00
   LOCATION L0004685     VOLUME   478246.728 3746816.656 447.85
   LOCATION L0004686     VOLUME   478246.678 3746825.156 447.92
   LOCATION L0004687     VOLUME   478246.629 3746833.656 447.98
   LOCATION L0004688     VOLUME   478246.579 3746842.155 448.00
   LOCATION L0004689     VOLUME   478246.529 3746850.655 448.00
   LOCATION L0004690     VOLUME   478246.479 3746859.155 448.00
   LOCATION L0004691     VOLUME   478246.430 3746867.655 448.00
   LOCATION L0004692     VOLUME   478246.380 3746876.155 448.00
   LOCATION L0004693     VOLUME   478246.330 3746884.655 448.00
   LOCATION L0004694     VOLUME   478246.281 3746893.155 448.00
   LOCATION L0004695     VOLUME   478246.231 3746901.654 448.00
   LOCATION L0004696     VOLUME   478246.181 3746910.154 448.00
   LOCATION L0004697     VOLUME   478246.132 3746918.654 448.00
   LOCATION L0004698     VOLUME   478246.082 3746927.154 448.00
   LOCATION L0004699     VOLUME   478246.032 3746935.654 448.00
   LOCATION L0004700     VOLUME   478245.982 3746944.154 448.00
** End of LINE VOLUME Source ID = SLINE8
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel (Passenger Cars)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.001697
** Vertical Dimension = 1.00
** SZINIT = 0.47
** Nodes = 4
** 478222.532, 3746939.639, 448.00, 0.00, 3.95
** 478223.313, 3746815.882, 448.00, 0.00, 3.95
** 478246.737, 3746815.102, 447.79, 0.00, 3.95
** 478245.956, 3746948.618, 448.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0004701     VOLUME   478222.559 3746935.389 448.00
   LOCATION L0004702     VOLUME   478222.613 3746926.889 448.00
   LOCATION L0004703     VOLUME   478222.666 3746918.389 448.00
   LOCATION L0004704     VOLUME   478222.720 3746909.889 448.00
   LOCATION L0004705     VOLUME   478222.774 3746901.389 448.00
   LOCATION L0004706     VOLUME   478222.827 3746892.889 448.00
   LOCATION L0004707     VOLUME   478222.881 3746884.390 448.00
   LOCATION L0004708     VOLUME   478222.935 3746875.890 448.00
   LOCATION L0004709     VOLUME   478222.988 3746867.390 448.00
   LOCATION L0004710     VOLUME   478223.042 3746858.890 448.00
   LOCATION L0004711     VOLUME   478223.095 3746850.390 448.00
   LOCATION L0004712     VOLUME   478223.149 3746841.890 448.00
   LOCATION L0004713     VOLUME   478223.203 3746833.391 448.00
   LOCATION L0004714     VOLUME   478223.256 3746824.891 448.00
   LOCATION L0004715     VOLUME   478223.310 3746816.391 448.00
   LOCATION L0004716     VOLUME   478231.300 3746815.616 448.00
   LOCATION L0004717     VOLUME   478239.795 3746815.333 448.00
   LOCATION L0004718     VOLUME   478246.728 3746816.656 447.85
   LOCATION L0004719     VOLUME   478246.678 3746825.156 447.92
   LOCATION L0004720     VOLUME   478246.629 3746833.656 447.98
   LOCATION L0004721     VOLUME   478246.579 3746842.155 448.00
   LOCATION L0004722     VOLUME   478246.529 3746850.655 448.00
   LOCATION L0004723     VOLUME   478246.479 3746859.155 448.00
   LOCATION L0004724     VOLUME   478246.430 3746867.655 448.00
   LOCATION L0004725     VOLUME   478246.380 3746876.155 448.00
   LOCATION L0004726     VOLUME   478246.330 3746884.655 448.00
   LOCATION L0004727     VOLUME   478246.281 3746893.155 448.00
   LOCATION L0004728     VOLUME   478246.231 3746901.654 448.00
   LOCATION L0004729     VOLUME   478246.181 3746910.154 448.00
   LOCATION L0004730     VOLUME   478246.132 3746918.654 448.00
   LOCATION L0004731     VOLUME   478246.082 3746927.154 448.00
   LOCATION L0004732     VOLUME   478246.032 3746935.654 448.00
   LOCATION L0004733     VOLUME   478245.982 3746944.154 448.00
** End of LINE VOLUME Source ID = SLINE9
   LOCATION AREA1        AREA       477899.720  3746810.370      448.000
** DESCRSRC On-Site Sources
** Source Parameters **
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0004593     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004594     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004595     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004596     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004597     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004598     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004599     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004600     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004601     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004602     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004603     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004604     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004605     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004606     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004607     0.0003856667      0.00      3.95      1.86
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                    CO
   SRCPARAM L0004608     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004609     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004610     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004611     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004612     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004613     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004614     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004615     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004616     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004617     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004618     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004619     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004620     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004621     0.0003856667      0.00      3.95      1.86
   SRCPARAM L0004622     0.0003856667      0.00      3.95      1.86
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0004623     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004624     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004625     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004626     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004627     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004628     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004629     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004630     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004631     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004632     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004633     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004634     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004635     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004636     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004637     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004638     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004639     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004640     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004641     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004642     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004643     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004644     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004645     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004646     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004647     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004648     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004649     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004650     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004651     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004652     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004653     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004654     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004655     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004656     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004657     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004658     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004659     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004660     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004661     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004662     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004663     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004664     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004665     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004666     0.0000942222      0.00      3.95      1.86
   SRCPARAM L0004667     0.0000942222      0.00      3.95      1.86
** ------------------------------------------------------------------
   SRCPARAM STCK1        0.000020856     3.960   501.000  49.98300     0.044
   SRCPARAM STCK2        0.000020856     3.960   501.000  49.98300     0.044
   SRCPARAM STCK3        0.000020856     3.960   501.000  49.98300     0.044
   SRCPARAM STCK4        0.000020856     3.960   501.000  49.98300     0.044
```

```
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0004668     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004669     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004670     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004671     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004672     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004673     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004674     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004675     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004676     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004677     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004678     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004679     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004680     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004681     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004682     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004683     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004684     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004685     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004686     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004687     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004688     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004689     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004690     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004691     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004692     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004693     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004694     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004695     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004696     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004697     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004698     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004699     0.0001842424      0.00      3.95      0.47
   SRCPARAM L0004700     0.0001842424      0.00      3.95      0.47
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0004701     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004702     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004703     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004704     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004705     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004706     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004707     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004708     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004709     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004710     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004711     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004712     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004713     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004714     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004715     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004716     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004717     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004718     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004719     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004720     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004721     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004722     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004723     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004724     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004725     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004726     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004727     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004728     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004729     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004730     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004731     0.0000514242      0.00      3.95      0.47
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                    CO
   SRCPARAM L0004732     0.0000514242      0.00      3.95      0.47
   SRCPARAM L0004733     0.0000514242      0.00      3.95      0.47
** ------------------------------------------------------------------
   SRCPARAM AREA1        3.0209E-07     4.000   307.990   138.810     0.000
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED CO.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\..\..\peri8.sfc
   PROFFILE ..\..\..\peri8.PFL
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST CO.AD\01H1GALL.PLT 31
   PLOTFILE 8 ALL 1ST CO.AD\08H1GALL.PLT 32
   SUMMFILE CO.sum
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\CO\CO.isc                  ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   11:18:42

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   146 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  CO

 **Model Calculates  2 Short Term Average(s) of:   1-HR   8-HR

 **This Run Includes:    146 Source(s);       1 Source Group(s); and      21 Receptor(s)

               with:      4 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:    141 VOLUME source(s)
                and:      1 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                  Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =
0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.6 MB of RAM.

 **Detailed Error/Message File:   CO.err

 **File for Summary of Results:   CO.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\CO\CO.isc                 ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   11:18:42

   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR VARY BY	EMIS RATE SCALAR
STCK1	0	0.20856E-04	477935.0	3746812.7	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	
STCK2	0	0.20856E-04	477996.5	3746810.2	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	
STCK3	0	0.20856E-04	478082.7	3746811.2	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	
STCK4	0	0.20856E-04	478158.0	3746809.8	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\CO\CO.isc *** *** 07/08/16
*** AERMET - VERSION 14134 *** *** *** 11:18:42

PAGE 3
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004593	0	0.38567E-03	477927.9	3746810.3	448.0	0.00	3.95	1.86	YES	
L0004594	0	0.38567E-03	477936.4	3746810.3	448.0	0.00	3.95	1.86	YES	
L0004595	0	0.38567E-03	477944.9	3746810.3	448.0	0.00	3.95	1.86	YES	
L0004596	0	0.38567E-03	477953.4	3746810.2	448.0	0.00	3.95	1.86	YES	
L0004597	0	0.38567E-03	477961.9	3746810.2	448.0	0.00	3.95	1.86	YES	
L0004598	0	0.38567E-03	477970.4	3746810.1	448.0	0.00	3.95	1.86	YES	
L0004599	0	0.38567E-03	477978.9	3746810.1	448.0	0.00	3.95	1.86	YES	
L0004600	0	0.38567E-03	477987.4	3746810.1	448.0	0.00	3.95	1.86	YES	
L0004601	0	0.38567E-03	477995.9	3746810.0	448.0	0.00	3.95	1.86	YES	
L0004602	0	0.38567E-03	478004.4	3746810.0	448.0	0.00	3.95	1.86	YES	
L0004603	0	0.38567E-03	478012.9	3746809.9	448.0	0.00	3.95	1.86	YES	
L0004604	0	0.38567E-03	478021.4	3746809.9	448.0	0.00	3.95	1.86	YES	
L0004605	0	0.38567E-03	478029.9	3746809.9	448.0	0.00	3.95	1.86	YES	
L0004606	0	0.38567E-03	478038.4	3746809.8	448.0	0.00	3.95	1.86	YES	
L0004607	0	0.38567E-03	478046.9	3746809.8	448.0	0.00	3.95	1.86	YES	
L0004608	0	0.38567E-03	478055.4	3746809.7	448.0	0.00	3.95	1.86	YES	
L0004609	0	0.38567E-03	478063.9	3746809.7	448.0	0.00	3.95	1.86	YES	
L0004610	0	0.38567E-03	478072.4	3746809.7	448.0	0.00	3.95	1.86	YES	
L0004611	0	0.38567E-03	478080.9	3746809.6	448.0	0.00	3.95	1.86	YES	
L0004612	0	0.38567E-03	478089.4	3746809.6	448.0	0.00	3.95	1.86	YES	
L0004613	0	0.38567E-03	478097.9	3746809.6	448.0	0.00	3.95	1.86	YES	
L0004614	0	0.38567E-03	478106.4	3746809.5	448.0	0.00	3.95	1.86	YES	
L0004615	0	0.38567E-03	478114.9	3746809.5	448.0	0.00	3.95	1.86	YES	
L0004616	0	0.38567E-03	478123.4	3746809.4	448.0	0.00	3.95	1.86	YES	
L0004617	0	0.38567E-03	478131.9	3746809.4	448.0	0.00	3.95	1.86	YES	
L0004618	0	0.38567E-03	478140.4	3746809.4	448.0	0.00	3.95	1.86	YES	
L0004619	0	0.38567E-03	478148.9	3746809.3	448.0	0.00	3.95	1.86	YES	
L0004620	0	0.38567E-03	478157.4	3746809.3	448.0	0.00	3.95	1.86	YES	
L0004621	0	0.38567E-03	478165.9	3746809.2	448.0	0.00	3.95	1.86	YES	
L0004622	0	0.38567E-03	478174.4	3746809.2	448.0	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

L0004623	0	0.94222E-04	478266.8	3746792.2	447.1	0.00	3.95	1.86	YES
L0004624	0	0.94222E-04	478258.3	3746792.2	447.2	0.00	3.95	1.86	YES
L0004625	0	0.94222E-04	478249.8	3746792.2	447.4	0.00	3.95	1.86	YES
L0004626	0	0.94222E-04	478241.3	3746792.1	447.5	0.00	3.95	1.86	YES
L0004627	0	0.94222E-04	478232.8	3746792.1	447.6	0.00	3.95	1.86	YES
L0004628	0	0.94222E-04	478224.3	3746792.1	447.8	0.00	3.95	1.86	YES
L0004629	0	0.94222E-04	478215.8	3746792.1	447.9	0.00	3.95	1.86	YES
L0004630	0	0.94222E-04	478207.3	3746792.0	448.0	0.00	3.95	1.86	YES
L0004631	0	0.94222E-04	478198.8	3746792.0	448.0	0.00	3.95	1.86	YES
L0004632	0	0.94222E-04	478190.3	3746792.0	448.0	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004633	0	0.94222E-04	478181.8	3746792.0	448.0	0.00	3.95	1.86	YES	
L0004634	0	0.94222E-04	478173.3	3746792.0	448.0	0.00	3.95	1.86	YES	
L0004635	0	0.94222E-04	478164.8	3746791.9	448.0	0.00	3.95	1.86	YES	
L0004636	0	0.94222E-04	478156.3	3746791.9	448.0	0.00	3.95	1.86	YES	
L0004637	0	0.94222E-04	478147.8	3746791.9	448.0	0.00	3.95	1.86	YES	
L0004638	0	0.94222E-04	478139.3	3746791.9	448.0	0.00	3.95	1.86	YES	
L0004639	0	0.94222E-04	478130.8	3746791.9	448.0	0.00	3.95	1.86	YES	
L0004640	0	0.94222E-04	478122.3	3746791.9	448.0	0.00	3.95	1.86	YES	
L0004641	0	0.94222E-04	478113.8	3746791.8	448.0	0.00	3.95	1.86	YES	
L0004642	0	0.94222E-04	478105.3	3746791.8	448.0	0.00	3.95	1.86	YES	
L0004643	0	0.94222E-04	478096.8	3746791.8	448.0	0.00	3.95	1.86	YES	
L0004644	0	0.94222E-04	478088.3	3746791.8	448.0	0.00	3.95	1.86	YES	
L0004645	0	0.94222E-04	478079.8	3746791.8	448.0	0.00	3.95	1.86	YES	
L0004646	0	0.94222E-04	478071.3	3746791.8	448.0	0.00	3.95	1.86	YES	
L0004647	0	0.94222E-04	478062.8	3746791.8	448.0	0.00	3.95	1.86	YES	
L0004648	0	0.94222E-04	478054.3	3746791.7	448.0	0.00	3.95	1.86	YES	
L0004649	0	0.94222E-04	478045.8	3746791.7	448.0	0.00	3.95	1.86	YES	
L0004650	0	0.94222E-04	478037.3	3746791.7	448.0	0.00	3.95	1.86	YES	
L0004651	0	0.94222E-04	478028.8	3746791.7	448.0	0.00	3.95	1.86	YES	
L0004652	0	0.94222E-04	478020.3	3746791.7	448.0	0.00	3.95	1.86	YES	
L0004653	0	0.94222E-04	478011.8	3746791.7	448.0	0.00	3.95	1.86	YES	
L0004654	0	0.94222E-04	478003.3	3746791.7	448.0	0.00	3.95	1.86	YES	
L0004655	0	0.94222E-04	477994.8	3746791.6	448.0	0.00	3.95	1.86	YES	
L0004656	0	0.94222E-04	477986.3	3746791.6	448.0	0.00	3.95	1.86	YES	
L0004657	0	0.94222E-04	477977.8	3746791.6	448.0	0.00	3.95	1.86	YES	
L0004658	0	0.94222E-04	477969.3	3746791.6	448.0	0.00	3.95	1.86	YES	
L0004659	0	0.94222E-04	477960.8	3746791.6	448.0	0.00	3.95	1.86	YES	
L0004660	0	0.94222E-04	477952.3	3746791.6	448.0	0.00	3.95	1.86	YES	
L0004661	0	0.94222E-04	477943.8	3746791.6	448.0	0.00	3.95	1.86	YES	
L0004662	0	0.94222E-04	477935.3	3746791.5	448.0	0.00	3.95	1.86	YES	
L0004663	0	0.94222E-04	477926.8	3746791.5	448.0	0.00	3.95	1.86	YES	
L0004664	0	0.94222E-04	477918.3	3746791.5	448.0	0.00	3.95	1.86	YES	
L0004665	0	0.94222E-04	477909.8	3746791.5	448.0	0.00	3.95	1.86	YES	
L0004666	0	0.94222E-04	477901.3	3746791.5	448.0	0.00	3.95	1.86	YES	
L0004667	0	0.94222E-04	477892.8	3746791.5	448.0	0.00	3.95	1.86	YES	
L0004668	0	0.18424E-03	478222.6	3746935.4	448.0	0.00	3.95	0.47	YES	
L0004669	0	0.18424E-03	478222.6	3746926.9	448.0	0.00	3.95	0.47	YES	
L0004670	0	0.18424E-03	478222.7	3746918.4	448.0	0.00	3.95	0.47	YES	
L0004671	0	0.18424E-03	478222.7	3746909.9	448.0	0.00	3.95	0.47	YES	
L0004672	0	0.18424E-03	478222.8	3746901.4	448.0	0.00	3.95	0.47	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004673	0	0.18424E-03	478222.8	3746892.9	448.0	0.00	3.95	0.47	YES	
L0004674	0	0.18424E-03	478222.9	3746884.4	448.0	0.00	3.95	0.47	YES	
L0004675	0	0.18424E-03	478222.9	3746875.9	448.0	0.00	3.95	0.47	YES	
L0004676	0	0.18424E-03	478223.0	3746867.4	448.0	0.00	3.95	0.47	YES	
L0004677	0	0.18424E-03	478223.0	3746858.9	448.0	0.00	3.95	0.47	YES	
L0004678	0	0.18424E-03	478223.1	3746850.4	448.0	0.00	3.95	0.47	YES	
L0004679	0	0.18424E-03	478223.1	3746841.9	448.0	0.00	3.95	0.47	YES	
L0004680	0	0.18424E-03	478223.2	3746833.4	448.0	0.00	3.95	0.47	YES	
L0004681	0	0.18424E-03	478223.3	3746824.9	448.0	0.00	3.95	0.47	YES	
L0004682	0	0.18424E-03	478223.3	3746816.4	448.0	0.00	3.95	0.47	YES	
L0004683	0	0.18424E-03	478231.3	3746815.6	448.0	0.00	3.95	0.47	YES	
L0004684	0	0.18424E-03	478239.8	3746815.3	448.0	0.00	3.95	0.47	YES	
L0004685	0	0.18424E-03	478246.7	3746816.7	447.9	0.00	3.95	0.47	YES	
L0004686	0	0.18424E-03	478246.7	3746825.2	447.9	0.00	3.95	0.47	YES	
L0004687	0	0.18424E-03	478246.6	3746833.7	448.0	0.00	3.95	0.47	YES	
L0004688	0	0.18424E-03	478246.6	3746842.2	448.0	0.00	3.95	0.47	YES	
L0004689	0	0.18424E-03	478246.5	3746850.7	448.0	0.00	3.95	0.47	YES	
L0004690	0	0.18424E-03	478246.5	3746859.2	448.0	0.00	3.95	0.47	YES	
L0004691	0	0.18424E-03	478246.4	3746867.7	448.0	0.00	3.95	0.47	YES	
L0004692	0	0.18424E-03	478246.4	3746876.2	448.0	0.00	3.95	0.47	YES	
L0004693	0	0.18424E-03	478246.3	3746884.7	448.0	0.00	3.95	0.47	YES	
L0004694	0	0.18424E-03	478246.3	3746893.2	448.0	0.00	3.95	0.47	YES	
L0004695	0	0.18424E-03	478246.2	3746901.7	448.0	0.00	3.95	0.47	YES	
L0004696	0	0.18424E-03	478246.2	3746910.2	448.0	0.00	3.95	0.47	YES	
L0004697	0	0.18424E-03	478246.1	3746918.7	448.0	0.00	3.95	0.47	YES	
L0004698	0	0.18424E-03	478246.1	3746927.2	448.0	0.00	3.95	0.47	YES	
L0004699	0	0.18424E-03	478246.0	3746935.7	448.0	0.00	3.95	0.47	YES	
L0004700	0	0.18424E-03	478246.0	3746944.2	448.0	0.00	3.95	0.47	YES	
L0004701	0	0.51424E-04	478222.6	3746935.4	448.0	0.00	3.95	0.47	YES	
L0004702	0	0.51424E-04	478222.6	3746926.9	448.0	0.00	3.95	0.47	YES	
L0004703	0	0.51424E-04	478222.7	3746918.4	448.0	0.00	3.95	0.47	YES	
L0004704	0	0.51424E-04	478222.7	3746909.9	448.0	0.00	3.95	0.47	YES	
L0004705	0	0.51424E-04	478222.8	3746901.4	448.0	0.00	3.95	0.47	YES	
L0004706	0	0.51424E-04	478222.8	3746892.9	448.0	0.00	3.95	0.47	YES	
L0004707	0	0.51424E-04	478222.9	3746884.4	448.0	0.00	3.95	0.47	YES	
L0004708	0	0.51424E-04	478222.9	3746875.9	448.0	0.00	3.95	0.47	YES	
L0004709	0	0.51424E-04	478223.0	3746867.4	448.0	0.00	3.95	0.47	YES	
L0004710	0	0.51424E-04	478223.0	3746858.9	448.0	0.00	3.95	0.47	YES	
L0004711	0	0.51424E-04	478223.1	3746850.4	448.0	0.00	3.95	0.47	YES	
L0004712	0	0.51424E-04	478223.1	3746841.9	448.0	0.00	3.95	0.47	YES	

*** VOLUME SOURCE DATA ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004713	0	0.51424E-04	478223.2	3746833.4	448.0	0.00	3.95	0.47	YES	
L0004714	0	0.51424E-04	478223.3	3746824.9	448.0	0.00	3.95	0.47	YES	
L0004715	0	0.51424E-04	478223.3	3746816.4	448.0	0.00	3.95	0.47	YES	
L0004716	0	0.51424E-04	478231.3	3746815.6	448.0	0.00	3.95	0.47	YES	
L0004717	0	0.51424E-04	478239.8	3746815.3	448.0	0.00	3.95	0.47	YES	
L0004718	0	0.51424E-04	478246.7	3746816.7	447.9	0.00	3.95	0.47	YES	
L0004719	0	0.51424E-04	478246.7	3746825.2	447.9	0.00	3.95	0.47	YES	
L0004720	0	0.51424E-04	478246.6	3746833.7	448.0	0.00	3.95	0.47	YES	
L0004721	0	0.51424E-04	478246.6	3746842.2	448.0	0.00	3.95	0.47	YES	
L0004722	0	0.51424E-04	478246.5	3746850.7	448.0	0.00	3.95	0.47	YES	
L0004723	0	0.51424E-04	478246.5	3746859.2	448.0	0.00	3.95	0.47	YES	
L0004724	0	0.51424E-04	478246.4	3746867.7	448.0	0.00	3.95	0.47	YES	
L0004725	0	0.51424E-04	478246.4	3746876.2	448.0	0.00	3.95	0.47	YES	
L0004726	0	0.51424E-04	478246.3	3746884.7	448.0	0.00	3.95	0.47	YES	
L0004727	0	0.51424E-04	478246.3	3746893.2	448.0	0.00	3.95	0.47	YES	
L0004728	0	0.51424E-04	478246.2	3746901.7	448.0	0.00	3.95	0.47	YES	
L0004729	0	0.51424E-04	478246.2	3746910.2	448.0	0.00	3.95	0.47	YES	
L0004730	0	0.51424E-04	478246.1	3746918.7	448.0	0.00	3.95	0.47	YES	
L0004731	0	0.51424E-04	478246.1	3746927.2	448.0	0.00	3.95	0.47	YES	
L0004732	0	0.51424E-04	478246.0	3746935.7	448.0	0.00	3.95	0.47	YES	
L0004733	0	0.51424E-04	478246.0	3746944.2	448.0	0.00	3.95	0.47	YES	

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\CO\CO.isc *** 07/08/16
*** AERMET - VERSION 14134 *** *** *** 11:18:42

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
AREA1	0	0.30209E-06	477899.7	3746810.4	448.0	4.00	307.99	138.81	0.00	0.00	YES	

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\CO\CO.isc *** 07/08/16
*** AERMET - VERSION 14134 *** *** *** 11:18:42

PAGE 8
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	L0004593 , L0004594 , L0004595 , L0004596 , L0004597 , L0004598 , L0004599 , L0004600 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\CO\CO.isc                 ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
   11:18:42

   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                    *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                SOURCE IDs
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\CO\CO.isc                  ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   11:18:42

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 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                  *** DISCRETE CARTESIAN RECEPTORS ***
                                 (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
(METERS)

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(478800.1, 3746766.9, 446.0, 446.0, 0.0); (476744.0, 3746652.5, 454.0, 454.0, 0.0);
(476399.7, 3746690.7, 457.0, 457.0, 0.0);

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\CO\CO.isc *** 07/08/16
*** AERMET - VERSION 14134 *** *** *** 11:18:42

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1

CO

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\..\..\peri8.sfc Met Version: 14134
Profile file: ..\..\..\peri8.PFL
Surface format: FREE

Profile format: FREE

Surface station no.: 0 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2007 Year: 2007

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
07	01	01	1	01	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	133.	9.1	279.9	5.5
07	01	01	1	02	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	192.	9.1	279.2	5.5
07	01	01	1	03	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	160.	9.1	277.5	5.5
07	01	01	1	04	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	75.	9.1	277.5	5.5
07	01	01	1	05	-0.6	0.026	-9.000	-9.000	-999.	10.	2.6	0.19	1.00	1.00	0.50	282.	9.1	278.8	5.5
07	01	01	1	06	-0.6	0.026	-9.000	-9.000	-999.	10.	2.6	0.19	1.00	1.00	0.50	96.	9.1	277.5	5.5
07	01	01	1	07	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	129.	9.1	278.1	5.5
07	01	01	1	08	-0.4	0.026	-9.000	-9.000	-999.	10.	3.7	0.19	1.00	0.54	0.50	99.	9.1	277.5	5.5
07	01	01	1	09	27.8	0.091	0.542	0.005	196.	66.	-2.3	0.19	1.00	0.33	0.50	133.	9.1	278.1	5.5
07	01	01	1	10	76.9	0.104	1.050	0.005	516.	81.	-1.3	0.19	1.00	0.26	0.50	174.	9.1	281.4	5.5
07	01	01	1	11	110.0	0.109	1.374	0.009	810.	87.	-1.0	0.19	1.00	0.23	0.50	95.	9.1	284.9	5.5
07	01	01	1	12	125.7	0.201	1.589	0.018	1095.	216.	-5.5	0.19	1.00	0.22	1.30	94.	9.1	288.1	5.5
07	01	01	1	13	121.7	0.287	1.641	0.022	1248.	369.	-16.6	0.19	1.00	0.22	2.20	24.	9.1	291.4	5.5
07	01	01	1	14	102.8	0.414	1.559	0.021	1265.	639.	-59.1	0.19	1.00	0.23	3.60	13.	9.1	292.5	5.5
07	01	01	1	15	69.9	0.619	1.374	0.021	1276.	1169.	-291.2	0.19	1.00	0.27	5.80	318.	9.1	292.0	5.5
07	01	01	1	16	16.8	0.607	0.856	0.021	1277.	1135.	-1137.8	0.19	1.00	0.36	5.80	329.	9.1	291.4	5.5
07	01	01	1	17	-42.2	0.437	-9.000	-9.000	-999.	720.	169.3	0.19	1.00	0.64	4.50	333.	9.1	289.9	5.5
07	01	01	1	18	-18.5	0.353	-9.000	-9.000	-999.	510.	204.1	0.19	1.00	1.00	3.60	305.	9.1	288.8	5.5
07	01	01	1	19	-42.3	0.437	-9.000	-9.000	-999.	692.	168.7	0.19	1.00	1.00	4.50	276.	9.1	287.5	5.5
07	01	01	1	20	-32.3	0.334	-9.000	-9.000	-999.	470.	98.6	0.19	1.00	1.00	3.60	323.	9.1	287.5	5.5
07	01	01	1	21	-36.7	0.380	-9.000	-9.000	-999.	562.	128.3	0.19	1.00	1.00	4.00	322.	9.1	288.1	5.5
07	01	01	1	22	-45.6	0.434	-9.000	-9.000	-999.	685.	153.6	0.19	1.00	1.00	4.50	30.	9.1	288.1	5.5
07	01	01	1	23	-39.7	0.377	-9.000	-9.000	-999.	557.	115.4	0.19	1.00	1.00	4.00	343.	9.1	287.0	5.5
07	01	01	1	24	-7.7	0.093	-9.000	-9.000	-999.	215.	9.1	0.19	1.00	1.00	1.80	155.	9.1	283.8	5.5

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

First hour of profile data
YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaW sigmaV
07 01 01 01 5.5 0 -999. -99.00 279.9 99.0 -99.00 -99.00
07 01 01 01 9.1 1 133. 0.50 -999.0 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\CO\CO.isc ***
07/08/16
*** AERMET - VERSION 14134 *** *** ***
11:18:42

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L0004593 , L0004594 , L0004595 , L0004596 , L0004597 ,
L0004598 , L0004599 , L0004600 , L0004601 , L0004602 , L0004603 , L0004604 , L0004605 ,
L0004606 , L0004607 , L0004608 , L0004609 , L0004610 , L0004611 , L0004612 , L0004613 ,
L0004614 , L0004615 , L0004616 , L0004617 , L0004618 , L0004619 , L0004620 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	1.62925	(08110118)	477850.17	3745739.17	0.88708	(08081120)
477468.29	3745732.72	0.83517	(11012318)	477064.80	3746275.62	1.10490	(09112617)
476681.88	3747195.89	0.75590	(10080720)	478756.45	3747340.45	1.62925	(08110118)
477850.17	3745739.17	0.88708	(08081120)	477468.29	3745732.72	0.83517	(11012318)
477064.80	3746275.62	1.10490	(09112617)	476681.88	3747195.89	0.75590	(10080720)
478080.50	3746730.56	9.09324	(09121416)	478061.18	3746985.48	7.77426	(07090220)
478375.97	3747009.62	4.89423	(09041520)	478314.17	3746847.40	9.04109	(08032419)
478166.25	3747511.58	1.59499	(07083124)	478593.58	3747910.42	0.88904	(08101020)
478741.65	3747610.66	1.12367	(09012618)	478124.08	3747953.76	0.88279	(07070524)
478800.07	3746766.89	2.02070	(11123020)	476744.03	3746652.46	1.14588	(10070121)
476399.72	3746690.72	1.11837	(11091220)				

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\CO\CO.isc ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
INCLUDING SOURCE(S): L0004593 , L0004594 , L0004595 , L0004596 , L0004597 ,
L0004598 , L0004599 , L0004600 , L0004601 , L0004602 , L0004603 , L0004604 , L0004605 ,
L0004606 , L0004607 , L0004608 , L0004609 , L0004610 , L0004611 , L0004612 , L0004613 ,
L0004614 , L0004615 , L0004616 , L0004617 , L0004618 , L0004619 , L0004620 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	0.59559m	(10020924)	477850.17	3745739.17	0.37247	(09013024)
477468.29	3745732.72	0.33970	(08110624)	477064.80	3746275.62	0.33736	(09021824)
476681.88	3747195.89	0.27386	(07122824)	478756.45	3747340.45	0.59559m	(10020924)
477850.17	3745739.17	0.37247	(09013024)	477468.29	3745732.72	0.33970	(08110624)
477064.80	3746275.62	0.33736	(09021824)	476681.88	3747195.89	0.27386	(07122824)
478080.50	3746730.56	7.23035	(07111724)	478061.18	3746985.48	7.29139	(08012008)
478375.97	3747009.62	2.27840b	(10020708)	478314.17	3746847.40	5.76704	(07102724)
478166.25	3747511.58	0.97529	(08011508)	478593.58	3747910.42	0.37804	(09080308)
478741.65	3747610.66	0.54401	(11050824)	478124.08	3747953.76	0.48091	(08012008)
478800.07	3746766.89	0.68033	(08020224)	476744.03	3746652.46	0.26984	(08010224)
476399.72	3746690.72	0.22745m	(11010224)				

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\CO\CO.isc ***
07/08/16
*** AERMET - VERSION 14134 *** *** ***
11:18:42

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF CO IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	NETWORK OF TYPE	GRID-ID
ALL	1ST HIGH VALUE IS	9.09324	ON 09121416: AT (478080.50, 3746730.56, 448.00, 448.00, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\CO\CO.isc *** *** 07/08/16
*** AERMET - VERSION 14134 *** *** *** 11:18:42

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF CO IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	NETWORK OF TYPE GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	7.29139	ON 08012008: AT (478061.18, 3746985.48, 448.00, 448.00, 0.00)	DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\CO\CO.isc *** *** 07/08/16
*** AERMET - VERSION 14134 *** *** *** 11:18:42

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 1895 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 90 Calm Hours Identified

A Total of 1805 Missing Hours Identified (4.12 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** AERMOD Finishes Successfully ***
****

**
****
**
** AERMOD Input Produced by:

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 7/8/2016
** File: C:\Lakes\AERMOD View\ISCC\LSTs\Operations\NO2\NO2.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\ISCC\LSTs\Operations\NO2\NO2.isc
   MODELOPT CONC OLM
   AVERTIME 1
   URBANOPT 2100516
   POLLUTID NO2 H1H
   RUNORNOT RUN
** NO2 Conversion Options
   NO2STACK 0.100
   NO2EQUIL 0.900
   OZONEFIL U:\UcJobs\_09600-10000\_09900\09913\PERI_Ozone\O3PERI2007.prn UG/M3
   ERRORFIL NO2.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling (Trucks)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.02096
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477923.678, 3746810.357, 448.00, 0.00, 3.95
** 478177.247, 3746809.187, 448.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0006228     VOLUME   477927.928 3746810.337 448.00
   LOCATION L0006229     VOLUME   477936.428 3746810.298 448.00
   LOCATION L0006230     VOLUME   477944.928 3746810.259 448.00
   LOCATION L0006231     VOLUME   477953.428 3746810.220 448.00
   LOCATION L0006232     VOLUME   477961.928 3746810.181 448.00
   LOCATION L0006233     VOLUME   477970.428 3746810.141 448.00
   LOCATION L0006234     VOLUME   477978.927 3746810.102 448.00
   LOCATION L0006235     VOLUME   477987.427 3746810.063 448.00
   LOCATION L0006236     VOLUME   477995.927 3746810.024 448.00
   LOCATION L0006237     VOLUME   478004.427 3746809.984 448.00
   LOCATION L0006238     VOLUME   478012.927 3746809.945 448.00
   LOCATION L0006239     VOLUME   478021.427 3746809.906 448.00
   LOCATION L0006240     VOLUME   478029.927 3746809.867 448.00
   LOCATION L0006241     VOLUME   478038.427 3746809.828 448.00
   LOCATION L0006242     VOLUME   478046.927 3746809.788 448.00
   LOCATION L0006243     VOLUME   478055.427 3746809.749 448.00
   LOCATION L0006244     VOLUME   478063.927 3746809.710 448.00
   LOCATION L0006245     VOLUME   478072.426 3746809.671 448.00
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                        CO
   LOCATION L0006246     VOLUME   478080.926 3746809.631 448.00
   LOCATION L0006247     VOLUME   478089.426 3746809.592 448.00
   LOCATION L0006248     VOLUME   478097.926 3746809.553 448.00
   LOCATION L0006249     VOLUME   478106.426 3746809.514 448.00
   LOCATION L0006250     VOLUME   478114.926 3746809.475 448.00
   LOCATION L0006251     VOLUME   478123.426 3746809.435 448.00
   LOCATION L0006252     VOLUME   478131.926 3746809.396 448.00
   LOCATION L0006253     VOLUME   478140.426 3746809.357 448.00
   LOCATION L0006254     VOLUME   478148.926 3746809.318 448.00
   LOCATION L0006255     VOLUME   478157.426 3746809.278 448.00
   LOCATION L0006256     VOLUME   478165.925 3746809.239 448.00
   LOCATION L0006257     VOLUME   478174.425 3746809.200 448.00
** End of LINE VOLUME Source ID = SLINE6
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel (Trucks)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0133
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 478271.074, 3746792.209, 447.08, 0.00, 3.95
** 478177.349, 3746791.961, 448.00, 0.00, 3.95
** 477890.952, 3746791.463, 448.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0006258     VOLUME   478266.824 3746792.198 447.05
   LOCATION L0006259     VOLUME   478258.324 3746792.175 447.21
   LOCATION L0006260     VOLUME   478249.824 3746792.153 447.36
   LOCATION L0006261     VOLUME   478241.324 3746792.130 447.51
   LOCATION L0006262     VOLUME   478232.824 3746792.108 447.64
   LOCATION L0006263     VOLUME   478224.324 3746792.085 447.77
   LOCATION L0006264     VOLUME   478215.824 3746792.063 447.91
   LOCATION L0006265     VOLUME   478207.324 3746792.040 448.00
   LOCATION L0006266     VOLUME   478198.824 3746792.018 448.00
   LOCATION L0006267     VOLUME   478190.324 3746791.995 448.00
   LOCATION L0006268     VOLUME   478181.824 3746791.973 448.00
   LOCATION L0006269     VOLUME   478173.324 3746791.954 448.00
   LOCATION L0006270     VOLUME   478164.824 3746791.939 448.00
   LOCATION L0006271     VOLUME   478156.324 3746791.924 448.00
   LOCATION L0006272     VOLUME   478147.824 3746791.910 448.00
   LOCATION L0006273     VOLUME   478139.324 3746791.895 448.00
   LOCATION L0006274     VOLUME   478130.824 3746791.880 448.00
   LOCATION L0006275     VOLUME   478122.324 3746791.865 448.00
   LOCATION L0006276     VOLUME   478113.824 3746791.851 448.00
   LOCATION L0006277     VOLUME   478105.324 3746791.836 448.00
   LOCATION L0006278     VOLUME   478096.824 3746791.821 448.00
   LOCATION L0006279     VOLUME   478088.324 3746791.806 448.00
   LOCATION L0006280     VOLUME   478079.824 3746791.791 448.00
   LOCATION L0006281     VOLUME   478071.324 3746791.777 448.00
   LOCATION L0006282     VOLUME   478062.825 3746791.762 448.00
   LOCATION L0006283     VOLUME   478054.325 3746791.747 448.00
   LOCATION L0006284     VOLUME   478045.825 3746791.732 448.00
   LOCATION L0006285     VOLUME   478037.325 3746791.718 448.00
   LOCATION L0006286     VOLUME   478028.825 3746791.703 448.00
   LOCATION L0006287     VOLUME   478020.325 3746791.688 448.00
   LOCATION L0006288     VOLUME   478011.825 3746791.673 448.00
   LOCATION L0006289     VOLUME   478003.325 3746791.658 448.00
   LOCATION L0006290     VOLUME   477994.825 3746791.644 448.00
   LOCATION L0006291     VOLUME   477986.325 3746791.629 448.00
   LOCATION L0006292     VOLUME   477977.825 3746791.614 448.00
   LOCATION L0006293     VOLUME   477969.325 3746791.599 448.00
   LOCATION L0006294     VOLUME   477960.825 3746791.584 448.00
   LOCATION L0006295     VOLUME   477952.325 3746791.570 448.00
   LOCATION L0006296     VOLUME   477943.825 3746791.555 448.00
```

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                                                        CO
   LOCATION L0006297     VOLUME   477935.325 3746791.540 448.00
   LOCATION L0006298     VOLUME   477926.825 3746791.525 448.00
   LOCATION L0006299     VOLUME   477918.325 3746791.511 448.00
   LOCATION L0006300     VOLUME   477909.825 3746791.496 448.00
   LOCATION L0006301     VOLUME   477901.325 3746791.481 448.00
   LOCATION L0006302     VOLUME   477892.825 3746791.466 448.00
** End of LINE VOLUME Source ID = SLINE7
   LOCATION STCK1        POINT      477935.000  3746812.710      448.000
** DESCRSRC TRU Idling
   LOCATION STCK2        POINT      477996.522  3746810.249      448.000
** DESCRSRC TRU Idling
   LOCATION STCK3        POINT      478082.653  3746811.233      448.000
** DESCRSRC TRU Idling
   LOCATION STCK4        POINT      478157.955  3746809.757      448.000
** DESCRSRC TRU Idling
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Idling (Passenger Cars)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.000518
** Vertical Dimension = 1.00
** SZINIT = 0.47
** Nodes = 4
** 478222.532, 3746939.639, 448.00, 0.00, 3.95
** 478223.313, 3746815.882, 448.00, 0.00, 3.95
** 478246.737, 3746815.102, 447.79, 0.00, 3.95
** 478245.956, 3746948.618, 448.00, 0.00, 3.95
** ------------------------------------------------------------------
   LOCATION L0006303     VOLUME   478222.559 3746935.389 448.00
   LOCATION L0006304     VOLUME   478222.612 3746926.889 448.00
   LOCATION L0006305     VOLUME   478222.666 3746918.389 448.00
   LOCATION L0006306     VOLUME   478222.720 3746909.890 448.00
   LOCATION L0006307     VOLUME   478222.773 3746901.390 448.00
   LOCATION L0006308     VOLUME   478222.827 3746892.890 448.00
   LOCATION L0006309     VOLUME   478222.881 3746884.390 448.00
   LOCATION L0006310     VOLUME   478222.934 3746875.890 448.00
   LOCATION L0006311     VOLUME   478222.988 3746867.390 448.00
   LOCATION L0006312     VOLUME   478223.042 3746858.891 448.00
   LOCATION L0006313     VOLUME   478223.095 3746850.391 448.00
   LOCATION L0006314     VOLUME   478223.149 3746841.891 448.00
   LOCATION L0006315     VOLUME   478223.203 3746833.391 448.00
   LOCATION L0006316     VOLUME   478223.256 3746824.891 448.00
   LOCATION L0006317     VOLUME   478223.310 3746816.391 448.00
   LOCATION L0006318     VOLUME   478231.299 3746815.616 448.00
   LOCATION L0006319     VOLUME   478239.794 3746815.333 448.00
   LOCATION L0006320     VOLUME   478246.728 3746816.656 447.85
   LOCATION L0006321     VOLUME   478246.678 3746825.155 447.92
   LOCATION L0006322     VOLUME   478246.628 3746833.655 447.98
   LOCATION L0006323     VOLUME   478246.579 3746842.155 448.00
   LOCATION L0006324     VOLUME   478246.529 3746850.655 448.00
   LOCATION L0006325     VOLUME   478246.479 3746859.155 448.00
   LOCATION L0006326     VOLUME   478246.430 3746867.655 448.00
   LOCATION L0006327     VOLUME   478246.380 3746876.155 448.00
   LOCATION L0006328     VOLUME   478246.330 3746884.654 448.00
   LOCATION L0006329     VOLUME   478246.280 3746893.154 448.00
   LOCATION L0006330     VOLUME   478246.231 3746901.654 448.00
   LOCATION L0006331     VOLUME   478246.181 3746910.154 448.00
   LOCATION L0006332     VOLUME   478246.131 3746918.654 448.00
   LOCATION L0006333     VOLUME   478246.082 3746927.154 448.00
   LOCATION L0006334     VOLUME   478246.032 3746935.653 448.00
   LOCATION L0006335     VOLUME   478245.982 3746944.153 448.00
** End of LINE VOLUME Source ID = SLINE8
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel (Passenger Cars)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001446
** Vertical Dimension = 1.00
** SZINIT = 0.47
** Nodes = 4
** 478222.532, 3746939.639, 448.00, 0.00, 3.95
** 478223.313, 3746815.882, 448.00, 0.00, 3.95
** 478246.737, 3746815.102, 447.79, 0.00, 3.95
** 478245.956, 3746948.618, 448.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0006336     VOLUME   478222.559 3746935.389 448.00
   LOCATION L0006337     VOLUME   478222.612 3746926.889 448.00
   LOCATION L0006338     VOLUME   478222.666 3746918.389 448.00
   LOCATION L0006339     VOLUME   478222.720 3746909.890 448.00
   LOCATION L0006340     VOLUME   478222.773 3746901.390 448.00
   LOCATION L0006341     VOLUME   478222.827 3746892.890 448.00
   LOCATION L0006342     VOLUME   478222.881 3746884.390 448.00
   LOCATION L0006343     VOLUME   478222.934 3746875.890 448.00
   LOCATION L0006344     VOLUME   478222.988 3746867.390 448.00
   LOCATION L0006345     VOLUME   478223.042 3746858.891 448.00
   LOCATION L0006346     VOLUME   478223.095 3746850.391 448.00
   LOCATION L0006347     VOLUME   478223.149 3746841.891 448.00
   LOCATION L0006348     VOLUME   478223.203 3746833.391 448.00
   LOCATION L0006349     VOLUME   478223.256 3746824.891 448.00
   LOCATION L0006350     VOLUME   478223.310 3746816.391 448.00
   LOCATION L0006351     VOLUME   478231.299 3746815.616 448.00
   LOCATION L0006352     VOLUME   478239.794 3746815.333 448.00
   LOCATION L0006353     VOLUME   478246.728 3746816.656 447.85
   LOCATION L0006354     VOLUME   478246.678 3746825.155 447.92
   LOCATION L0006355     VOLUME   478246.628 3746833.655 447.98
   LOCATION L0006356     VOLUME   478246.579 3746842.155 448.00
   LOCATION L0006357     VOLUME   478246.529 3746850.655 448.00
   LOCATION L0006358     VOLUME   478246.479 3746859.155 448.00
   LOCATION L0006359     VOLUME   478246.430 3746867.655 448.00
   LOCATION L0006360     VOLUME   478246.380 3746876.155 448.00
   LOCATION L0006361     VOLUME   478246.330 3746884.654 448.00
   LOCATION L0006362     VOLUME   478246.280 3746893.154 448.00
   LOCATION L0006363     VOLUME   478246.231 3746901.654 448.00
   LOCATION L0006364     VOLUME   478246.181 3746910.154 448.00
   LOCATION L0006365     VOLUME   478246.131 3746918.654 448.00
   LOCATION L0006366     VOLUME   478246.082 3746927.154 448.00
   LOCATION L0006367     VOLUME   478246.032 3746935.653 448.00
   LOCATION L0006368     VOLUME   478245.982 3746944.153 448.00
** End of LINE VOLUME Source ID = SLINE9
   LOCATION AREA1        AREA      477899.720  3746810.370      448.000
** DESCRSRC On-Site Sources
** Source Parameters **
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0006228     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006229     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006230     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006231     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006232     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006233     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006234     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006235     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006236     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006237     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006238     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006239     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006240     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006241     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006242     0.0006986667      0.00      3.95      1.86
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                  CO
   SRCPARAM L0006243     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006244     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006245     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006246     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006247     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006248     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006249     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006250     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006251     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006252     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006253     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006254     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006255     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006256     0.0006986667      0.00      3.95      1.86
   SRCPARAM L0006257     0.0006986667      0.00      3.95      1.86
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0006258     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006259     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006260     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006261     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006262     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006263     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006264     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006265     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006266     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006267     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006268     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006269     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006270     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006271     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006272     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006273     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006274     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006275     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006276     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006277     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006278     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006279     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006280     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006281     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006282     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006283     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006284     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006285     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006286     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006287     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006288     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006289     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006290     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006291     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006292     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006293     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006294     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006295     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006296     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006297     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006298     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006299     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006300     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006301     0.0002955556      0.00      3.95      1.86
   SRCPARAM L0006302     0.0002955556      0.00      3.95      1.86
** ------------------------------------------------------------------
   SRCPARAM STCK1        0.000020856     3.960   501.000  49.98300     0.044
   SRCPARAM STCK2        0.000020856     3.960   501.000  49.98300     0.044
   SRCPARAM STCK3        0.000020856     3.960   501.000  49.98300     0.044
   SRCPARAM STCK4        0.000020856     3.960   501.000  49.98300     0.044
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0006303     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006304     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006305     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006306     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006307     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006308     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006309     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006310     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006311     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006312     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006313     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006314     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006315     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006316     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006317     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006318     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006319     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006320     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006321     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006322     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006323     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006324     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006325     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006326     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006327     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006328     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006329     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006330     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006331     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006332     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006333     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006334     0.000015697      0.00      3.95      0.47
   SRCPARAM L0006335     0.000015697      0.00      3.95      0.47
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0006336     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006337     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006338     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006339     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006340     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006341     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006342     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006343     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006344     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006345     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006346     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006347     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006348     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006349     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006350     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006351     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006352     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006353     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006354     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006355     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006356     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006357     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006358     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006359     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006360     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006361     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006362     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006363     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006364     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006365     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006366     0.000004382      0.00      3.95      0.47
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                        CO
   SRCPARAM L0006367     0.000004382      0.00      3.95      0.47
   SRCPARAM L0006368     0.000004382      0.00      3.95      0.47
** ---------------------------------------------------------------------
   SRCPARAM AREA1        6.6189E-07     4.000   307.990   138.810     0.000
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED NO2.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\..\..\peri8.sfc
   PROFFILE ..\..\..\peri8.pfl
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
   STARTEND 2007 1 1 1 2007 12 31 24
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST NO2.AD\01H1GALL.PLT 31
   SUMMFILE NO2.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 CO W276      23       POLLID: Special proc for 1h-NO2/SO2 24hPM25 NAAQS disabled      NO2 H1H
 CO W271      30       COCARD: O3FILE w/o O3VALs; full conv for hrs with miss O3

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                                    CO
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\NO2\NO2.isc                ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   11:27:28

   PAGE   1
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   146 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Allows User-Specified Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Ozone Limiting Method (OLM) Used for NO2 Conversion
            with an Equilibrium NO2/NOx Ratio of  0.900 and
            with NO OLMGROUPs
         7. Urban Roughness Length of 1.0 Meter Used.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  NO2

 **NOTE: Special processing requirements applicable for the 1-hour NO2 NAAQS have been disabled!!!
         User has specified H1H on the POLLUTID keyword.
         High ranked 1-hour values are NOT averaged across the number of years modeled, and
         complete years of data are NOT required.

 **Model Calculates  1 Short Term Average(s) of:   1-HR

 **This Run Includes:    146 Source(s);       1 Source Group(s); and      21 Receptor(s)

                with:      4 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:    141 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **This Run Includes OZONE    Values for a Single Sector
              HOURLY OZONE    Values are Available

 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 442.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Detailed Error/Message File: NO2.err

**File for Summary of Results: NO2.sum

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\NO2\NO2.isc *** 07/08/16
*** AERMET - VERSION 14134 *** *** *** 11:27:28

PAGE 2
**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR VARY BY	EMIS RATE SCALAR
STCK1	0	0.20856E-04	477935.0	3746812.7	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	
STCK2	0	0.20856E-04	477996.5	3746810.2	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	
STCK3	0	0.20856E-04	478082.7	3746811.2	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	
STCK4	0	0.20856E-04	478158.0	3746809.8	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\NO2\NO2.isc *** 07/08/16
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**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0006228	0	0.69867E-03	477927.9	3746810.3	448.0	0.00	3.95	1.86	YES	
L0006229	0	0.69867E-03	477936.4	3746810.3	448.0	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

L0006230	0	0.69867E-03	477944.9	3746810.3	448.0	0.00	3.95	1.86	YES
L0006231	0	0.69867E-03	477953.4	3746810.2	448.0	0.00	3.95	1.86	YES
L0006232	0	0.69867E-03	477961.9	3746810.2	448.0	0.00	3.95	1.86	YES
L0006233	0	0.69867E-03	477970.4	3746810.1	448.0	0.00	3.95	1.86	YES
L0006234	0	0.69867E-03	477978.9	3746810.1	448.0	0.00	3.95	1.86	YES
L0006235	0	0.69867E-03	477987.4	3746810.1	448.0	0.00	3.95	1.86	YES
L0006236	0	0.69867E-03	477995.9	3746810.0	448.0	0.00	3.95	1.86	YES
L0006237	0	0.69867E-03	478004.4	3746810.0	448.0	0.00	3.95	1.86	YES
L0006238	0	0.69867E-03	478012.9	3746809.9	448.0	0.00	3.95	1.86	YES
L0006239	0	0.69867E-03	478021.4	3746809.9	448.0	0.00	3.95	1.86	YES
L0006240	0	0.69867E-03	478029.9	3746809.9	448.0	0.00	3.95	1.86	YES
L0006241	0	0.69867E-03	478038.4	3746809.8	448.0	0.00	3.95	1.86	YES
L0006242	0	0.69867E-03	478046.9	3746809.8	448.0	0.00	3.95	1.86	YES
L0006243	0	0.69867E-03	478055.4	3746809.7	448.0	0.00	3.95	1.86	YES
L0006244	0	0.69867E-03	478063.9	3746809.7	448.0	0.00	3.95	1.86	YES
L0006245	0	0.69867E-03	478072.4	3746809.7	448.0	0.00	3.95	1.86	YES
L0006246	0	0.69867E-03	478080.9	3746809.6	448.0	0.00	3.95	1.86	YES
L0006247	0	0.69867E-03	478089.4	3746809.6	448.0	0.00	3.95	1.86	YES
L0006248	0	0.69867E-03	478097.9	3746809.6	448.0	0.00	3.95	1.86	YES
L0006249	0	0.69867E-03	478106.4	3746809.5	448.0	0.00	3.95	1.86	YES
L0006250	0	0.69867E-03	478114.9	3746809.5	448.0	0.00	3.95	1.86	YES
L0006251	0	0.69867E-03	478123.4	3746809.4	448.0	0.00	3.95	1.86	YES
L0006252	0	0.69867E-03	478131.9	3746809.4	448.0	0.00	3.95	1.86	YES
L0006253	0	0.69867E-03	478140.4	3746809.4	448.0	0.00	3.95	1.86	YES
L0006254	0	0.69867E-03	478148.9	3746809.3	448.0	0.00	3.95	1.86	YES
L0006255	0	0.69867E-03	478157.4	3746809.3	448.0	0.00	3.95	1.86	YES
L0006256	0	0.69867E-03	478165.9	3746809.2	448.0	0.00	3.95	1.86	YES
L0006257	0	0.69867E-03	478174.4	3746809.2	448.0	0.00	3.95	1.86	YES
L0006258	0	0.29556E-03	478266.8	3746792.2	447.1	0.00	3.95	1.86	YES
L0006259	0	0.29556E-03	478258.3	3746792.2	447.2	0.00	3.95	1.86	YES
L0006260	0	0.29556E-03	478249.8	3746792.2	447.4	0.00	3.95	1.86	YES
L0006261	0	0.29556E-03	478241.3	3746792.1	447.5	0.00	3.95	1.86	YES
L0006262	0	0.29556E-03	478232.8	3746792.1	447.6	0.00	3.95	1.86	YES
L0006263	0	0.29556E-03	478224.3	3746792.1	447.8	0.00	3.95	1.86	YES
L0006264	0	0.29556E-03	478215.8	3746792.1	447.9	0.00	3.95	1.86	YES
L0006265	0	0.29556E-03	478207.3	3746792.0	448.0	0.00	3.95	1.86	YES
L0006266	0	0.29556E-03	478198.8	3746792.0	448.0	0.00	3.95	1.86	YES
L0006267	0	0.29556E-03	478190.3	3746792.0	448.0	0.00	3.95	1.86	YES

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\NO2\NO2.isc *** *** 07/08/16

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**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0006268	0	0.29556E-03	478181.8	3746792.0	448.0	0.00	3.95	1.86	YES	
L0006269	0	0.29556E-03	478173.3	3746792.0	448.0	0.00	3.95	1.86	YES	
L0006270	0	0.29556E-03	478164.8	3746791.9	448.0	0.00	3.95	1.86	YES	
L0006271	0	0.29556E-03	478156.3	3746791.9	448.0	0.00	3.95	1.86	YES	
L0006272	0	0.29556E-03	478147.8	3746791.9	448.0	0.00	3.95	1.86	YES	
L0006273	0	0.29556E-03	478139.3	3746791.9	448.0	0.00	3.95	1.86	YES	
L0006274	0	0.29556E-03	478130.8	3746791.9	448.0	0.00	3.95	1.86	YES	
L0006275	0	0.29556E-03	478122.3	3746791.9	448.0	0.00	3.95	1.86	YES	
L0006276	0	0.29556E-03	478113.8	3746791.9	448.0	0.00	3.95	1.86	YES	
L0006277	0	0.29556E-03	478105.3	3746791.8	448.0	0.00	3.95	1.86	YES	
L0006278	0	0.29556E-03	478096.8	3746791.8	448.0	0.00	3.95	1.86	YES	
L0006279	0	0.29556E-03	478088.3	3746791.8	448.0	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

L0006280	0	0.29556E-03	478079.8	3746791.8	448.0	0.00	3.95	1.86	YES
L0006281	0	0.29556E-03	478071.3	3746791.8	448.0	0.00	3.95	1.86	YES
L0006282	0	0.29556E-03	478062.8	3746791.8	448.0	0.00	3.95	1.86	YES
L0006283	0	0.29556E-03	478054.3	3746791.7	448.0	0.00	3.95	1.86	YES
L0006284	0	0.29556E-03	478045.8	3746791.7	448.0	0.00	3.95	1.86	YES
L0006285	0	0.29556E-03	478037.3	3746791.7	448.0	0.00	3.95	1.86	YES
L0006286	0	0.29556E-03	478028.8	3746791.7	448.0	0.00	3.95	1.86	YES
L0006287	0	0.29556E-03	478020.3	3746791.7	448.0	0.00	3.95	1.86	YES
L0006288	0	0.29556E-03	478011.8	3746791.7	448.0	0.00	3.95	1.86	YES
L0006289	0	0.29556E-03	478003.3	3746791.7	448.0	0.00	3.95	1.86	YES
L0006290	0	0.29556E-03	477994.8	3746791.6	448.0	0.00	3.95	1.86	YES
L0006291	0	0.29556E-03	477986.3	3746791.6	448.0	0.00	3.95	1.86	YES
L0006292	0	0.29556E-03	477977.8	3746791.6	448.0	0.00	3.95	1.86	YES
L0006293	0	0.29556E-03	477969.3	3746791.6	448.0	0.00	3.95	1.86	YES
L0006294	0	0.29556E-03	477960.8	3746791.6	448.0	0.00	3.95	1.86	YES
L0006295	0	0.29556E-03	477952.3	3746791.6	448.0	0.00	3.95	1.86	YES
L0006296	0	0.29556E-03	477943.8	3746791.6	448.0	0.00	3.95	1.86	YES
L0006297	0	0.29556E-03	477935.3	3746791.5	448.0	0.00	3.95	1.86	YES
L0006298	0	0.29556E-03	477926.8	3746791.5	448.0	0.00	3.95	1.86	YES
L0006299	0	0.29556E-03	477918.3	3746791.5	448.0	0.00	3.95	1.86	YES
L0006300	0	0.29556E-03	477909.8	3746791.5	448.0	0.00	3.95	1.86	YES
L0006301	0	0.29556E-03	477901.3	3746791.5	448.0	0.00	3.95	1.86	YES
L0006302	0	0.29556E-03	477892.8	3746791.5	448.0	0.00	3.95	1.86	YES
L0006303	0	0.15697E-04	478222.6	3746935.4	448.0	0.00	3.95	0.47	YES
L0006304	0	0.15697E-04	478222.6	3746926.9	448.0	0.00	3.95	0.47	YES
L0006305	0	0.15697E-04	478222.7	3746918.4	448.0	0.00	3.95	0.47	YES
L0006306	0	0.15697E-04	478222.7	3746909.9	448.0	0.00	3.95	0.47	YES
L0006307	0	0.15697E-04	478222.8	3746901.4	448.0	0.00	3.95	0.47	YES

**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0006308	0	0.15697E-04	478222.8	3746892.9	448.0	0.00	3.95	0.47	YES	
L0006309	0	0.15697E-04	478222.9	3746884.4	448.0	0.00	3.95	0.47	YES	
L0006310	0	0.15697E-04	478222.9	3746875.9	448.0	0.00	3.95	0.47	YES	
L0006311	0	0.15697E-04	478223.0	3746867.4	448.0	0.00	3.95	0.47	YES	
L0006312	0	0.15697E-04	478223.0	3746858.9	448.0	0.00	3.95	0.47	YES	
L0006313	0	0.15697E-04	478223.1	3746850.4	448.0	0.00	3.95	0.47	YES	
L0006314	0	0.15697E-04	478223.1	3746841.9	448.0	0.00	3.95	0.47	YES	
L0006315	0	0.15697E-04	478223.2	3746833.4	448.0	0.00	3.95	0.47	YES	
L0006316	0	0.15697E-04	478223.3	3746824.9	448.0	0.00	3.95	0.47	YES	
L0006317	0	0.15697E-04	478223.3	3746816.4	448.0	0.00	3.95	0.47	YES	
L0006318	0	0.15697E-04	478231.3	3746815.6	448.0	0.00	3.95	0.47	YES	
L0006319	0	0.15697E-04	478239.8	3746815.3	448.0	0.00	3.95	0.47	YES	
L0006320	0	0.15697E-04	478246.7	3746816.7	447.9	0.00	3.95	0.47	YES	
L0006321	0	0.15697E-04	478246.7	3746825.2	447.9	0.00	3.95	0.47	YES	
L0006322	0	0.15697E-04	478246.6	3746833.7	448.0	0.00	3.95	0.47	YES	
L0006323	0	0.15697E-04	478246.6	3746842.2	448.0	0.00	3.95	0.47	YES	
L0006324	0	0.15697E-04	478246.5	3746850.7	448.0	0.00	3.95	0.47	YES	
L0006325	0	0.15697E-04	478246.5	3746859.2	448.0	0.00	3.95	0.47	YES	
L0006326	0	0.15697E-04	478246.4	3746867.7	448.0	0.00	3.95	0.47	YES	
L0006327	0	0.15697E-04	478246.4	3746876.2	448.0	0.00	3.95	0.47	YES	
L0006328	0	0.15697E-04	478246.3	3746884.7	448.0	0.00	3.95	0.47	YES	
L0006329	0	0.15697E-04	478246.3	3746893.2	448.0	0.00	3.95	0.47	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

L0006330	0	0.15697E-04	478246.2	3746901.7	448.0	0.00	3.95	0.47	YES
L0006331	0	0.15697E-04	478246.2	3746910.2	448.0	0.00	3.95	0.47	YES
L0006332	0	0.15697E-04	478246.1	3746918.7	448.0	0.00	3.95	0.47	YES
L0006333	0	0.15697E-04	478246.1	3746927.2	448.0	0.00	3.95	0.47	YES
L0006334	0	0.15697E-04	478246.0	3746935.7	448.0	0.00	3.95	0.47	YES
L0006335	0	0.15697E-04	478246.0	3746944.2	448.0	0.00	3.95	0.47	YES
L0006336	0	0.43820E-05	478222.6	3746935.4	448.0	0.00	3.95	0.47	YES
L0006337	0	0.43820E-05	478222.6	3746926.9	448.0	0.00	3.95	0.47	YES
L0006338	0	0.43820E-05	478222.7	3746918.4	448.0	0.00	3.95	0.47	YES
L0006339	0	0.43820E-05	478222.7	3746909.9	448.0	0.00	3.95	0.47	YES
L0006340	0	0.43820E-05	478222.8	3746901.4	448.0	0.00	3.95	0.47	YES
L0006341	0	0.43820E-05	478222.8	3746892.9	448.0	0.00	3.95	0.47	YES
L0006342	0	0.43820E-05	478222.9	3746884.4	448.0	0.00	3.95	0.47	YES
L0006343	0	0.43820E-05	478222.9	3746875.9	448.0	0.00	3.95	0.47	YES
L0006344	0	0.43820E-05	478223.0	3746867.4	448.0	0.00	3.95	0.47	YES
L0006345	0	0.43820E-05	478223.0	3746858.9	448.0	0.00	3.95	0.47	YES
L0006346	0	0.43820E-05	478223.1	3746850.4	448.0	0.00	3.95	0.47	YES
L0006347	0	0.43820E-05	478223.1	3746841.9	448.0	0.00	3.95	0.47	YES

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0006348	0	0.43820E-05	478223.2	3746833.4	448.0	0.00	3.95	0.47	YES	
L0006349	0	0.43820E-05	478223.3	3746824.9	448.0	0.00	3.95	0.47	YES	
L0006350	0	0.43820E-05	478223.3	3746816.4	448.0	0.00	3.95	0.47	YES	
L0006351	0	0.43820E-05	478231.3	3746815.6	448.0	0.00	3.95	0.47	YES	
L0006352	0	0.43820E-05	478239.8	3746815.3	448.0	0.00	3.95	0.47	YES	
L0006353	0	0.43820E-05	478246.7	3746816.7	447.9	0.00	3.95	0.47	YES	
L0006354	0	0.43820E-05	478246.7	3746825.2	447.9	0.00	3.95	0.47	YES	
L0006355	0	0.43820E-05	478246.6	3746833.7	448.0	0.00	3.95	0.47	YES	
L0006356	0	0.43820E-05	478246.6	3746842.2	448.0	0.00	3.95	0.47	YES	
L0006357	0	0.43820E-05	478246.5	3746850.7	448.0	0.00	3.95	0.47	YES	
L0006358	0	0.43820E-05	478246.5	3746859.2	448.0	0.00	3.95	0.47	YES	
L0006359	0	0.43820E-05	478246.4	3746867.7	448.0	0.00	3.95	0.47	YES	
L0006360	0	0.43820E-05	478246.4	3746876.2	448.0	0.00	3.95	0.47	YES	
L0006361	0	0.43820E-05	478246.3	3746884.7	448.0	0.00	3.95	0.47	YES	
L0006362	0	0.43820E-05	478246.3	3746893.2	448.0	0.00	3.95	0.47	YES	
L0006363	0	0.43820E-05	478246.2	3746901.7	448.0	0.00	3.95	0.47	YES	
L0006364	0	0.43820E-05	478246.2	3746910.2	448.0	0.00	3.95	0.47	YES	
L0006365	0	0.43820E-05	478246.1	3746918.7	448.0	0.00	3.95	0.47	YES	
L0006366	0	0.43820E-05	478246.1	3746927.2	448.0	0.00	3.95	0.47	YES	
L0006367	0	0.43820E-05	478246.0	3746935.7	448.0	0.00	3.95	0.47	YES	
L0006368	0	0.43820E-05	478246.0	3746944.2	448.0	0.00	3.95	0.47	YES	

*** AREA SOURCE DATA ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                                  CO
              NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM     Y-DIM    ORIENT.    INIT.
URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT  OF AREA   OF AREA   OF AREA     SZ
SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)  (METERS)   (DEG.)  (METERS)
        BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

 AREA1            0   0.66189E-06  477899.7 3746810.4   448.0     4.00    307.99    138.81      0.00     0.00
YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\NO2\NO2.isc                *** 
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                    *** 
   11:27:28

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 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN


                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                          SOURCE IDs
 -----------                                          ----------

  ALL        L0006228    , L0006229    , L0006230    , L0006231    , L0006232    , L0006233    , L0006234    ,
L0006235    ,
             L0006236    , L0006237    , L0006238    , L0006239    , L0006240    , L0006241    , L0006242    ,
L0006243    ,
             L0006244    , L0006245    , L0006246    , L0006247    , L0006248    , L0006249    , L0006250    ,
L0006251    ,
             L0006252    , L0006253    , L0006254    , L0006255    , L0006256    , L0006257    , L0006258    ,
L0006259    ,
             L0006260    , L0006261    , L0006262    , L0006263    , L0006264    , L0006265    , L0006266    ,
L0006267    ,
             L0006268    , L0006269    , L0006270    , L0006271    , L0006272    , L0006273    , L0006274    ,
L0006275    ,
             L0006276    , L0006277    , L0006278    , L0006279    , L0006280    , L0006281    , L0006282    ,
L0006283    ,
             L0006284    , L0006285    , L0006286    , L0006287    , L0006288    , L0006289    , L0006290    ,
L0006291    ,
             L0006292    , L0006293    , L0006294    , L0006295    , L0006296    , L0006297    , L0006298    ,
L0006299    ,
             L0006300    , L0006301    , L0006302    , STCK1       , STCK2       , STCK3       , STCK4       ,
L0006303    ,
             L0006304    , L0006305    , L0006306    , L0006307    , L0006308    , L0006309    , L0006310    ,
L0006311    ,
             L0006312    , L0006313    , L0006314    , L0006315    , L0006316    , L0006317    , L0006318    ,
L0006319    ,
             L0006320    , L0006321    , L0006322    , L0006323    , L0006324    , L0006325    , L0006326    ,
L0006327    ,
             L0006328    , L0006329    , L0006330    , L0006331    , L0006332    , L0006333    , L0006334    ,
L0006335    ,
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

L0006336 , L0006337 , L0006338 , L0006339 , L0006340 , L0006341 , L0006342 , L0006343 ,

L0006344 , L0006345 , L0006346 , L0006347 , L0006348 , L0006349 , L0006350 , L0006351 ,

L0006352 , L0006353 , L0006354 , L0006355 , L0006356 , L0006357 , L0006358 , L0006359 ,

L0006360 , L0006361 , L0006362 , L0006363 , L0006364 , L0006365 , L0006366 , L0006367 ,

L0006368 , AREA1 ,

**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

2100516. L0006228 , L0006229 , L0006230 , L0006231 , L0006232 , L0006233 , L0006234 , L0006235 ,

L0006236 , L0006237 , L0006238 , L0006239 , L0006240 , L0006241 , L0006242 , L0006243 ,

L0006244 , L0006245 , L0006246 , L0006247 , L0006248 , L0006249 , L0006250 , L0006251 ,

L0006252 , L0006253 , L0006254 , L0006255 , L0006256 , L0006257 , L0006258 , L0006259 ,

L0006260 , L0006261 , L0006262 , L0006263 , L0006264 , L0006265 , L0006266 , L0006267 ,

L0006268 , L0006269 , L0006270 , L0006271 , L0006272 , L0006273 , L0006274 , L0006275 ,

L0006276 , L0006277 , L0006278 , L0006279 , L0006280 , L0006281 , L0006282 , L0006283 ,

L0006284 , L0006285 , L0006286 , L0006287 , L0006288 , L0006289 , L0006290 , L0006291 ,

L0006292 , L0006293 , L0006294 , L0006295 , L0006296 , L0006297 , L0006298 , L0006299 ,

L0006300 , L0006301 , L0006302 , STCK1 , STCK2 , STCK3 , STCK4 , L0006303 ,

L0006304 , L0006305 , L0006306 , L0006307 , L0006308 , L0006309 , L0006310 , L0006311 ,

L0006312 , L0006313 , L0006314 , L0006315 , L0006316 , L0006317 , L0006318 , L0006319 ,

L0006320 , L0006321 , L0006322 , L0006323 , L0006324 , L0006325 , L0006326 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
L0006327 ,
L0006328 , L0006329 , L0006330 , L0006331 , L0006332 , L0006333 , L0006334 ,
L0006335 ,
L0006336 , L0006337 , L0006338 , L0006339 , L0006340 , L0006341 , L0006342 ,
L0006343 ,
L0006344 , L0006345 , L0006346 , L0006347 , L0006348 , L0006349 , L0006350 ,
L0006351 ,
L0006352 , L0006353 , L0006354 , L0006355 , L0006356 , L0006357 , L0006358 ,
L0006359 ,
L0006360 , L0006361 , L0006362 , L0006363 , L0006364 , L0006365 , L0006366 ,
L0006367 ,
L0006368 , AREA1 ,
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\NO2\NO2.isc ***
07/08/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** IN-STACK NO2 RATIOS FOR OLM/PVMRM OPTIONS ***

SOURCE_ID	NO2_RATIO	SOURCE_ID	NO2_RATIO	SOURCE_ID	NO2_RATIO	SOURCE_ID	NO2_RATIO
L0006228	0.100	L0006229	0.100	L0006230	0.100	L0006231	0.100
L0006232	0.100	L0006233	0.100	L0006234	0.100	L0006235	0.100
L0006236	0.100	L0006237	0.100	L0006238	0.100	L0006239	0.100
L0006240	0.100	L0006241	0.100	L0006242	0.100	L0006243	0.100
L0006244	0.100	L0006245	0.100	L0006246	0.100	L0006247	0.100
L0006248	0.100	L0006249	0.100	L0006250	0.100	L0006251	0.100
L0006252	0.100	L0006253	0.100	L0006254	0.100	L0006255	0.100
L0006256	0.100	L0006257	0.100	L0006258	0.100	L0006259	0.100
L0006260	0.100	L0006261	0.100	L0006262	0.100	L0006263	0.100
L0006264	0.100	L0006265	0.100	L0006266	0.100	L0006267	0.100
L0006268	0.100	L0006269	0.100	L0006270	0.100	L0006271	0.100
L0006272	0.100	L0006273	0.100	L0006274	0.100	L0006275	0.100
L0006276	0.100	L0006277	0.100	L0006278	0.100	L0006279	0.100
L0006280	0.100	L0006281	0.100	L0006282	0.100	L0006283	0.100
L0006284	0.100	L0006285	0.100	L0006286	0.100	L0006287	0.100
L0006288	0.100	L0006289	0.100	L0006290	0.100	L0006291	0.100
L0006292	0.100	L0006293	0.100	L0006294	0.100	L0006295	0.100
L0006296	0.100	L0006297	0.100	L0006298	0.100	L0006299	0.100
L0006300	0.100	L0006301	0.100	L0006302	0.100	STCK1	0.100
STCK2	0.100	STCK3	0.100	STCK4	0.100	L0006303	0.100
L0006304	0.100	L0006305	0.100	L0006306	0.100	L0006307	0.100
L0006308	0.100	L0006309	0.100	L0006310	0.100	L0006311	0.100
L0006312	0.100	L0006313	0.100	L0006314	0.100	L0006315	0.100
L0006316	0.100	L0006317	0.100	L0006318	0.100	L0006319	0.100
L0006320	0.100	L0006321	0.100	L0006322	0.100	L0006323	0.100
L0006324	0.100	L0006325	0.100	L0006326	0.100	L0006327	0.100
L0006328	0.100	L0006329	0.100	L0006330	0.100	L0006331	0.100
L0006332	0.100	L0006333	0.100	L0006334	0.100	L0006335	0.100
L0006336	0.100	L0006337	0.100	L0006338	0.100	L0006339	0.100
L0006340	0.100	L0006341	0.100	L0006342	0.100	L0006343	0.100
L0006344	0.100	L0006345	0.100	L0006346	0.100	L0006347	0.100
L0006348	0.100	L0006349	0.100	L0006350	0.100	L0006351	0.100
L0006352	0.100	L0006353	0.100	L0006354	0.100	L0006355	0.100
L0006356	0.100	L0006357	0.100	L0006358	0.100	L0006359	0.100
L0006360	0.100	L0006361	0.100	L0006362	0.100	L0006363	0.100

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
L0006364 0.100 L0006365 0.100 L0006366 0.100 L0006367 0.100
L0006368 0.100 AREA1 0.100
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\NO2\NO2.isc ***
07/08/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(478756.5, 3747340.4, 448.0, 448.0, 0.0); (477850.2, 3745739.2, 448.0, 448.0, 0.0);
(477468.3, 3745732.7, 450.0, 450.0, 0.0); (477064.8, 3746275.6, 452.0, 452.0, 0.0);
(476681.9, 3747195.9, 453.0, 453.0, 0.0); (478756.5, 3747340.4, 448.0, 448.0, 0.0);
(477850.2, 3745739.2, 448.0, 448.0, 0.0); (477468.3, 3745732.7, 450.0, 450.0, 0.0);
(477064.8, 3746275.6, 452.0, 452.0, 0.0); (476681.9, 3747195.9, 453.0, 453.0, 0.0);
(478080.5, 3746730.6, 448.0, 448.0, 0.0); (478061.2, 3746985.5, 448.0, 448.0, 0.0);
(478376.0, 3747009.6, 448.0, 448.0, 0.0); (478314.2, 3746847.4, 447.2, 447.2, 0.0);
(478166.2, 3747511.6, 448.0, 448.0, 0.0); (478593.6, 3747910.4, 449.0, 449.0, 0.0);
(478741.6, 3747610.7, 448.0, 448.0, 0.0); (478124.1, 3747953.8, 450.0, 450.0, 0.0);
(478800.1, 3746766.9, 446.0, 446.0, 0.0); (476744.0, 3746652.5, 454.0, 454.0, 0.0);
(476399.7, 3746690.7, 457.0, 457.0, 0.0);

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\NO2\NO2.isc ***
07/08/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1

CO
FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\NO2\NO2.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: NonDFAULT CONC ELEV OLM URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\..\..\peri8.sfc Met Version: 14134
Profile file: ..\..\..\peri8.pfl
Surface format: FREE

Profile format: FREE

Surface station no.: 0 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2007 Year: 2007

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
07	01	01	1	01	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	133.	9.1	279.9	5.5
07	01	01	1	02	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	192.	9.1	279.2	5.5
07	01	01	1	03	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	160.	9.1	277.5	5.5
07	01	01	1	04	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	75.	9.1	277.5	5.5
07	01	01	1	05	-0.6	0.026	-9.000	-9.000	-999.	10.	2.6	0.19	1.00	1.00	0.50	282.	9.1	278.8	5.5
07	01	01	1	06	-0.6	0.026	-9.000	-9.000	-999.	10.	2.6	0.19	1.00	1.00	0.50	96.	9.1	277.5	5.5
07	01	01	1	07	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	129.	9.1	278.1	5.5
07	01	01	1	08	-0.4	0.026	-9.000	-9.000	-999.	10.	3.7	0.19	1.00	0.54	0.50	99.	9.1	277.5	5.5
07	01	01	1	09	27.8	0.091	0.542	0.005	196.	66.	-2.3	0.19	1.00	0.33	0.50	133.	9.1	278.1	5.5
07	01	01	1	10	76.9	0.104	1.050	0.005	516.	81.	-1.3	0.19	1.00	0.26	0.50	174.	9.1	281.4	5.5
07	01	01	1	11	110.0	0.109	1.374	0.009	810.	87.	-1.0	0.19	1.00	0.23	0.50	95.	9.1	284.9	5.5
07	01	01	1	12	125.7	0.201	1.589	0.018	1095.	216.	-5.5	0.19	1.00	0.22	1.30	94.	9.1	288.1	5.5
07	01	01	1	13	121.7	0.287	1.641	0.022	1248.	369.	-16.6	0.19	1.00	0.22	2.20	24.	9.1	291.4	5.5
07	01	01	1	14	102.8	0.414	1.559	0.021	1265.	639.	-59.1	0.19	1.00	0.23	3.60	13.	9.1	292.5	5.5
07	01	01	1	15	69.9	0.619	1.374	0.021	1276.	1169.	-291.2	0.19	1.00	0.27	5.80	318.	9.1	292.0	5.5
07	01	01	1	16	16.8	0.607	0.856	0.021	1277.	1135.	-1137.8	0.19	1.00	0.36	5.80	329.	9.1	291.4	5.5
07	01	01	1	17	-42.2	0.437	-9.000	-9.000	-999.	720.	169.3	0.19	1.00	0.64	4.50	333.	9.1	289.9	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

```
 5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00   1.00    3.60  305.    9.1  288.8
 5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00   1.00    4.50  276.    9.1  287.5
 5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00   1.00    3.60  323.    9.1  287.5
 5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00   1.00    4.00  322.    9.1  288.1
 5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00   1.00    4.50   30.    9.1  288.1
 5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00   1.00    4.00  343.    9.1  287.0
 5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00   1.00    1.80  155.    9.1  283.8
 5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\NO2\NO2.isc                 ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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   PAGE  14
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  ALL
 ***
                                  INCLUDING SOURCE(S):     L0006228    , L0006229    , L0006230    , L0006231    ,
L0006232    ,
                 L0006233    , L0006234    , L0006235    , L0006236    , L0006237    , L0006238    , L0006239    ,
L0006240    ,
                 L0006241    , L0006242    , L0006243    , L0006244    , L0006245    , L0006246    , L0006247    ,
L0006248    ,
                 L0006249    , L0006250    , L0006251    , L0006252    , L0006253    , L0006254    , L0006255    ,
. . .       ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                       ** CONC OF NO2      IN MICROGRAMS/M**3                          **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)  Y-COORD (M)        CONC
(YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - -
        478756.45   3747340.45        2.53925  (07062601)               477850.17   3745739.17        1.57096
(07081603)
        477468.29   3745732.72        1.40058  (07072502)               477064.80   3746275.62        1.69501
(07081202)
        476681.88   3747195.89        1.35029  (07083003)               478756.45   3747340.45        2.53925
(07062601)
        477850.17   3745739.17        1.57096  (07081603)               477468.29   3745732.72        1.40058
(07072502)
        477064.80   3746275.62        1.69501  (07081202)               476681.88   3747195.89        1.35029
(07083003)
        478080.50   3746730.56       15.64918  (07062222)               478061.18   3746985.48       14.30331
(07090220)
        478375.97   3747009.62        8.32990  (07090101)               478314.17   3746847.40       13.53665
(07090122)
        478166.25   3747511.58        3.00241  (07083124)               478593.58   3747910.42        1.56496
(07061401)
        478741.65   3747610.66        1.95491  (07091521)               478124.08   3747953.76        1.68228
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                     CO
(07070524)
       478800.07   3746766.89        3.16229  (07090122)               476744.03   3746652.46        1.63063
(07071805)
       476399.72   3746690.72        1.68548  (07101304)

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\NO2\NO2.isc               ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   11:27:28

   PAGE  15
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN

                                        *** THE SUMMARY OF HIGHEST  1-HR RESULTS ***


                                    ** CONC OF NO2      IN MICROGRAMS/M**3                          **

                                                 DATE
         NETWORK
GROUP ID                           AVERAGE CONC     (YYMMDDHH)             RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)
 OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS      15.64918  ON 07062222: AT (  478080.50,  3746730.56,   448.00,   448.00,
0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\NO2\NO2.isc               ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   11:27:28

   PAGE  16
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of          124 Informational Message(s)

 A Total of         8760 Hours Were Processed

 A Total of            0 Calm Hours Identified

 A Total of          124 Missing Hours Identified (  1.42 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 CO W276      23       POLLID: Special proc for 1h-NO2/SO2 24hPM25 NAAQS disabled      NO2 H1H
 CO W271      30       COCARD: O3FILE w/o O3VALs; full conv for hrs with miss O3

    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 7/8/2016
** File: C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM10\PM10.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM10\PM10.isc
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 2100516
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL PM10.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling (Trucks)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00008497
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477923.678, 3746810.357, 448.00, 0.00, 3.95
** 478177.247, 3746809.187, 448.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0004734     VOLUME   477927.928 3746810.338 448.00
   LOCATION L0004735     VOLUME   477936.428 3746810.298 448.00
   LOCATION L0004736     VOLUME   477944.928 3746810.259 448.00
   LOCATION L0004737     VOLUME   477953.428 3746810.220 448.00
   LOCATION L0004738     VOLUME   477961.928 3746810.181 448.00
   LOCATION L0004739     VOLUME   477970.428 3746810.142 448.00
   LOCATION L0004740     VOLUME   477978.928 3746810.102 448.00
   LOCATION L0004741     VOLUME   477987.428 3746810.063 448.00
   LOCATION L0004742     VOLUME   477995.928 3746810.024 448.00
   LOCATION L0004743     VOLUME   478004.428 3746809.985 448.00
   LOCATION L0004744     VOLUME   478012.927 3746809.946 448.00
   LOCATION L0004745     VOLUME   478021.427 3746809.906 448.00
   LOCATION L0004746     VOLUME   478029.927 3746809.867 448.00
   LOCATION L0004747     VOLUME   478038.427 3746809.828 448.00
   LOCATION L0004748     VOLUME   478046.927 3746809.789 448.00
   LOCATION L0004749     VOLUME   478055.427 3746809.749 448.00
   LOCATION L0004750     VOLUME   478063.927 3746809.710 448.00
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                        CO
   LOCATION L0004751     VOLUME   478072.427 3746809.671 448.00
   LOCATION L0004752     VOLUME   478080.927 3746809.632 448.00
   LOCATION L0004753     VOLUME   478089.427 3746809.593 448.00
   LOCATION L0004754     VOLUME   478097.927 3746809.553 448.00
   LOCATION L0004755     VOLUME   478106.426 3746809.514 448.00
   LOCATION L0004756     VOLUME   478114.926 3746809.475 448.00
   LOCATION L0004757     VOLUME   478123.426 3746809.436 448.00
   LOCATION L0004758     VOLUME   478131.926 3746809.396 448.00
   LOCATION L0004759     VOLUME   478140.426 3746809.357 448.00
   LOCATION L0004760     VOLUME   478148.926 3746809.318 448.00
   LOCATION L0004761     VOLUME   478157.426 3746809.279 448.00
   LOCATION L0004762     VOLUME   478165.926 3746809.240 448.00
   LOCATION L0004763     VOLUME   478174.426 3746809.200 448.00
** End of LINE VOLUME Source ID = SLINE6
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel (Trucks)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00008154
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 478271.074, 3746792.209, 447.08, 0.00, 3.95
** 478177.349, 3746791.961, 448.00, 0.00, 3.95
** 477890.952, 3746791.463, 448.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0004764     VOLUME   478266.824 3746792.198 447.05
   LOCATION L0004765     VOLUME   478258.324 3746792.175 447.21
   LOCATION L0004766     VOLUME   478249.824 3746792.153 447.36
   LOCATION L0004767     VOLUME   478241.324 3746792.130 447.51
   LOCATION L0004768     VOLUME   478232.824 3746792.108 447.64
   LOCATION L0004769     VOLUME   478224.325 3746792.085 447.77
   LOCATION L0004770     VOLUME   478215.825 3746792.063 447.91
   LOCATION L0004771     VOLUME   478207.325 3746792.040 448.00
   LOCATION L0004772     VOLUME   478198.825 3746792.018 448.00
   LOCATION L0004773     VOLUME   478190.325 3746791.995 448.00
   LOCATION L0004774     VOLUME   478181.825 3746791.972 448.00
   LOCATION L0004775     VOLUME   478173.325 3746791.954 448.00
   LOCATION L0004776     VOLUME   478164.825 3746791.939 448.00
   LOCATION L0004777     VOLUME   478156.325 3746791.924 448.00
   LOCATION L0004778     VOLUME   478147.825 3746791.909 448.00
   LOCATION L0004779     VOLUME   478139.325 3746791.895 448.00
   LOCATION L0004780     VOLUME   478130.825 3746791.880 448.00
   LOCATION L0004781     VOLUME   478122.325 3746791.865 448.00
   LOCATION L0004782     VOLUME   478113.825 3746791.850 448.00
   LOCATION L0004783     VOLUME   478105.325 3746791.836 448.00
   LOCATION L0004784     VOLUME   478096.825 3746791.821 448.00
   LOCATION L0004785     VOLUME   478088.325 3746791.806 448.00
   LOCATION L0004786     VOLUME   478079.825 3746791.791 448.00
   LOCATION L0004787     VOLUME   478071.325 3746791.777 448.00
   LOCATION L0004788     VOLUME   478062.825 3746791.762 448.00
   LOCATION L0004789     VOLUME   478054.325 3746791.747 448.00
   LOCATION L0004790     VOLUME   478045.825 3746791.732 448.00
   LOCATION L0004791     VOLUME   478037.325 3746791.717 448.00
   LOCATION L0004792     VOLUME   478028.825 3746791.703 448.00
   LOCATION L0004793     VOLUME   478020.325 3746791.688 448.00
   LOCATION L0004794     VOLUME   478011.825 3746791.673 448.00
   LOCATION L0004795     VOLUME   478003.325 3746791.658 448.00
   LOCATION L0004796     VOLUME   477994.825 3746791.644 448.00
   LOCATION L0004797     VOLUME   477986.325 3746791.629 448.00
   LOCATION L0004798     VOLUME   477977.825 3746791.614 448.00
   LOCATION L0004799     VOLUME   477969.325 3746791.599 448.00
   LOCATION L0004800     VOLUME   477960.825 3746791.585 448.00
   LOCATION L0004801     VOLUME   477952.325 3746791.570 448.00
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                                                        CO
   LOCATION L0004802     VOLUME   477943.825 3746791.555 448.00
   LOCATION L0004803     VOLUME   477935.325 3746791.540 448.00
   LOCATION L0004804     VOLUME   477926.825 3746791.526 448.00
   LOCATION L0004805     VOLUME   477918.325 3746791.511 448.00
   LOCATION L0004806     VOLUME   477909.825 3746791.496 448.00
   LOCATION L0004807     VOLUME   477901.325 3746791.481 448.00
   LOCATION L0004808     VOLUME   477892.825 3746791.467 448.00
** End of LINE VOLUME Source ID = SLINE7
   LOCATION STCK1        POINT      477935.000  3746812.710      448.000
** DESCRSRC TRU Idling
   LOCATION STCK2        POINT      477996.522  3746810.249      448.000
** DESCRSRC TRU Idling
   LOCATION STCK3        POINT      478082.653  3746811.233      448.000
** DESCRSRC TRU Idling
   LOCATION STCK4        POINT      478157.955  3746809.757      448.000
** DESCRSRC TRU Idling
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Idling (Passenger Cars)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004843
** Vertical Dimension = 1.00
** SZINIT = 0.47
** Nodes = 4
** 478222.532, 3746939.639, 448.00, 0.00, 3.95
** 478223.313, 3746815.882, 448.00, 0.00, 3.95
** 478246.737, 3746815.102, 447.79, 0.00, 3.95
** 478245.956, 3746948.618, 448.00, 0.00, 3.95
** ------------------------------------------------------------------
   LOCATION L0004809     VOLUME   478222.559 3746935.389 448.00
   LOCATION L0004810     VOLUME   478222.613 3746926.889 448.00
   LOCATION L0004811     VOLUME   478222.666 3746918.389 448.00
   LOCATION L0004812     VOLUME   478222.720 3746909.889 448.00
   LOCATION L0004813     VOLUME   478222.774 3746901.389 448.00
   LOCATION L0004814     VOLUME   478222.827 3746892.889 448.00
   LOCATION L0004815     VOLUME   478222.881 3746884.390 448.00
   LOCATION L0004816     VOLUME   478222.935 3746875.890 448.00
   LOCATION L0004817     VOLUME   478222.988 3746867.390 448.00
   LOCATION L0004818     VOLUME   478223.042 3746858.890 448.00
   LOCATION L0004819     VOLUME   478223.095 3746850.390 448.00
   LOCATION L0004820     VOLUME   478223.149 3746841.890 448.00
   LOCATION L0004821     VOLUME   478223.203 3746833.391 448.00
   LOCATION L0004822     VOLUME   478223.256 3746824.891 448.00
   LOCATION L0004823     VOLUME   478223.310 3746816.391 448.00
   LOCATION L0004824     VOLUME   478231.300 3746815.616 448.00
   LOCATION L0004825     VOLUME   478239.795 3746815.333 448.00
   LOCATION L0004826     VOLUME   478246.728 3746816.656 447.85
   LOCATION L0004827     VOLUME   478246.678 3746825.156 447.92
   LOCATION L0004828     VOLUME   478246.629 3746833.656 447.98
   LOCATION L0004829     VOLUME   478246.579 3746842.155 448.00
   LOCATION L0004830     VOLUME   478246.529 3746850.655 448.00
   LOCATION L0004831     VOLUME   478246.479 3746859.155 448.00
   LOCATION L0004832     VOLUME   478246.430 3746867.655 448.00
   LOCATION L0004833     VOLUME   478246.380 3746876.155 448.00
   LOCATION L0004834     VOLUME   478246.330 3746884.655 448.00
   LOCATION L0004835     VOLUME   478246.281 3746893.155 448.00
   LOCATION L0004836     VOLUME   478246.231 3746901.654 448.00
   LOCATION L0004837     VOLUME   478246.181 3746910.154 448.00
   LOCATION L0004838     VOLUME   478246.132 3746918.654 448.00
   LOCATION L0004839     VOLUME   478246.082 3746927.154 448.00
   LOCATION L0004840     VOLUME   478246.032 3746935.654 448.00
   LOCATION L0004841     VOLUME   478245.982 3746944.154 448.00
** End of LINE VOLUME Source ID = SLINE8
** ------------------------------------------------------------------
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel (Passenger Cars)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001351
** Vertical Dimension = 1.00
** SZINIT = 0.47
** Nodes = 4
** 478222.532, 3746939.639, 448.00, 0.00, 3.95
** 478223.313, 3746815.882, 448.00, 0.00, 3.95
** 478246.737, 3746815.102, 447.79, 0.00, 3.95
** 478245.956, 3746948.618, 448.00, 0.00, 3.95
** ------------------------------------------------------------------
   LOCATION L0004842     VOLUME   478222.559 3746935.389 448.00
   LOCATION L0004843     VOLUME   478222.613 3746926.889 448.00
   LOCATION L0004844     VOLUME   478222.666 3746918.389 448.00
   LOCATION L0004845     VOLUME   478222.720 3746909.889 448.00
   LOCATION L0004846     VOLUME   478222.774 3746901.389 448.00
   LOCATION L0004847     VOLUME   478222.827 3746892.889 448.00
   LOCATION L0004848     VOLUME   478222.881 3746884.390 448.00
   LOCATION L0004849     VOLUME   478222.935 3746875.890 448.00
   LOCATION L0004850     VOLUME   478222.988 3746867.390 448.00
   LOCATION L0004851     VOLUME   478223.042 3746858.890 448.00
   LOCATION L0004852     VOLUME   478223.095 3746850.390 448.00
   LOCATION L0004853     VOLUME   478223.149 3746841.890 448.00
   LOCATION L0004854     VOLUME   478223.203 3746833.391 448.00
   LOCATION L0004855     VOLUME   478223.256 3746824.891 448.00
   LOCATION L0004856     VOLUME   478223.310 3746816.391 448.00
   LOCATION L0004857     VOLUME   478231.300 3746815.616 448.00
   LOCATION L0004858     VOLUME   478239.795 3746815.333 448.00
   LOCATION L0004859     VOLUME   478246.728 3746816.656 447.85
   LOCATION L0004860     VOLUME   478246.678 3746825.156 447.92
   LOCATION L0004861     VOLUME   478246.629 3746833.656 447.98
   LOCATION L0004862     VOLUME   478246.579 3746842.155 448.00
   LOCATION L0004863     VOLUME   478246.529 3746850.655 448.00
   LOCATION L0004864     VOLUME   478246.479 3746859.155 448.00
   LOCATION L0004865     VOLUME   478246.430 3746867.655 448.00
   LOCATION L0004866     VOLUME   478246.380 3746876.155 448.00
   LOCATION L0004867     VOLUME   478246.330 3746884.655 448.00
   LOCATION L0004868     VOLUME   478246.281 3746893.155 448.00
   LOCATION L0004869     VOLUME   478246.231 3746901.654 448.00
   LOCATION L0004870     VOLUME   478246.181 3746910.154 448.00
   LOCATION L0004871     VOLUME   478246.132 3746918.654 448.00
   LOCATION L0004872     VOLUME   478246.082 3746927.154 448.00
   LOCATION L0004873     VOLUME   478246.032 3746935.654 448.00
   LOCATION L0004874     VOLUME   478245.982 3746944.154 448.00
** End of LINE VOLUME Source ID = SLINE9
   LOCATION AREA1        AREA       477899.720  3746810.370      448.000
** DESCRSRC On-Site Sources
** Source Parameters **
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0004734     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004735     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004736     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004737     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004738     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004739     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004740     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004741     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004742     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004743     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004744     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004745     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004746     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004747     0.000002832      0.00      3.95      1.86
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                    CO
   SRCPARAM L0004748     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004749     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004750     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004751     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004752     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004753     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004754     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004755     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004756     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004757     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004758     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004759     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004760     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004761     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004762     0.000002832      0.00      3.95      1.86
   SRCPARAM L0004763     0.000002832      0.00      3.95      1.86
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0004764     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004765     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004766     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004767     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004768     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004769     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004770     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004771     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004772     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004773     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004774     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004775     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004776     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004777     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004778     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004779     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004780     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004781     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004782     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004783     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004784     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004785     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004786     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004787     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004788     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004789     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004790     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004791     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004792     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004793     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004794     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004795     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004796     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004797     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004798     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004799     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004800     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004801     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004802     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004803     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004804     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004805     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004806     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004807     0.000001812      0.00      3.95      1.86
   SRCPARAM L0004808     0.000001812      0.00      3.95      1.86
** ------------------------------------------------------------------
   SRCPARAM STCK1        0.000020856     3.960   501.000  49.98300     0.044
   SRCPARAM STCK2        0.000020856     3.960   501.000  49.98300     0.044
   SRCPARAM STCK3        0.000020856     3.960   501.000  49.98300     0.044
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                                                  CO
   SRCPARAM STCK4        0.000020856     3.960   501.000  49.98300     0.044
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0004809     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004810     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004811     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004812     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004813     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004814     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004815     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004816     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004817     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004818     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004819     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004820     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004821     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004822     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004823     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004824     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004825     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004826     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004827     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004828     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004829     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004830     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004831     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004832     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004833     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004834     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004835     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004836     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004837     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004838     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004839     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004840     0.000001468      0.00      3.95      0.47
   SRCPARAM L0004841     0.000001468      0.00      3.95      0.47
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0004842     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004843     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004844     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004845     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004846     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004847     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004848     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004849     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004850     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004851     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004852     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004853     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004854     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004855     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004856     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004857     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004858     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004859     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004860     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004861     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004862     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004863     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004864     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004865     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004866     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004867     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004868     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004869     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004870     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004871     0.0000004094      0.00      3.95      0.47
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                    CO
   SRCPARAM L0004872     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004873     0.0000004094      0.00      3.95      0.47
   SRCPARAM L0004874     0.0000004094      0.00      3.95      0.47
** ----------------------------------------------------------------
   SRCPARAM AREA1        2.7017E-08     4.000   307.990   138.810     0.000
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED PM10.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\..\..\peri8.sfc
   PROFFILE ..\..\..\peri8.PFL
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST PM10.AD\24H1GALL.PLT 31
   SUMMFILE PM10.sum
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM10\PM10.isc             ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
   11:36:09

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   146 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates  1 Short Term Average(s) of:  24-HR

 **This Run Includes:    146 Source(s);       1 Source Group(s); and      21 Receptor(s)

               with:      4 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:    141 VOLUME source(s)
                and:      1 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                  Emission Units = GRAMS/SEC                              ;  Emission Rate Unit Factor =
0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.6 MB of RAM.

 **Detailed Error/Message File:   PM10.err

 **File for Summary of Results:   PM10.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM10\PM10.isc             ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
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   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR VARY BY	EMIS RATE SCALAR
STCK1	0	0.20856E-04	477935.0	3746812.7	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	
STCK2	0	0.20856E-04	477996.5	3746810.2	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	
STCK3	0	0.20856E-04	478082.7	3746811.2	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	
STCK4	0	0.20856E-04	478158.0	3746809.8	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM10\PM10.isc *** *** 07/08/16
*** AERMET - VERSION 14134 *** *** *** 11:36:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004734	0	0.28320E-05	477927.9	3746810.3	448.0	0.00	3.95	1.86	YES	
L0004735	0	0.28320E-05	477936.4	3746810.3	448.0	0.00	3.95	1.86	YES	
L0004736	0	0.28320E-05	477944.9	3746810.3	448.0	0.00	3.95	1.86	YES	
L0004737	0	0.28320E-05	477953.4	3746810.2	448.0	0.00	3.95	1.86	YES	
L0004738	0	0.28320E-05	477961.9	3746810.2	448.0	0.00	3.95	1.86	YES	
L0004739	0	0.28320E-05	477970.4	3746810.1	448.0	0.00	3.95	1.86	YES	
L0004740	0	0.28320E-05	477978.9	3746810.1	448.0	0.00	3.95	1.86	YES	
L0004741	0	0.28320E-05	477987.4	3746810.1	448.0	0.00	3.95	1.86	YES	
L0004742	0	0.28320E-05	477995.9	3746810.0	448.0	0.00	3.95	1.86	YES	
L0004743	0	0.28320E-05	478004.4	3746810.0	448.0	0.00	3.95	1.86	YES	
L0004744	0	0.28320E-05	478012.9	3746809.9	448.0	0.00	3.95	1.86	YES	
L0004745	0	0.28320E-05	478021.4	3746809.9	448.0	0.00	3.95	1.86	YES	
L0004746	0	0.28320E-05	478029.9	3746809.9	448.0	0.00	3.95	1.86	YES	
L0004747	0	0.28320E-05	478038.4	3746809.8	448.0	0.00	3.95	1.86	YES	
L0004748	0	0.28320E-05	478046.9	3746809.8	448.0	0.00	3.95	1.86	YES	
L0004749	0	0.28320E-05	478055.4	3746809.7	448.0	0.00	3.95	1.86	YES	
L0004750	0	0.28320E-05	478063.9	3746809.7	448.0	0.00	3.95	1.86	YES	
L0004751	0	0.28320E-05	478072.4	3746809.7	448.0	0.00	3.95	1.86	YES	
L0004752	0	0.28320E-05	478080.9	3746809.6	448.0	0.00	3.95	1.86	YES	
L0004753	0	0.28320E-05	478089.4	3746809.6	448.0	0.00	3.95	1.86	YES	
L0004754	0	0.28320E-05	478097.9	3746809.6	448.0	0.00	3.95	1.86	YES	
L0004755	0	0.28320E-05	478106.4	3746809.5	448.0	0.00	3.95	1.86	YES	
L0004756	0	0.28320E-05	478114.9	3746809.5	448.0	0.00	3.95	1.86	YES	
L0004757	0	0.28320E-05	478123.4	3746809.4	448.0	0.00	3.95	1.86	YES	
L0004758	0	0.28320E-05	478131.9	3746809.4	448.0	0.00	3.95	1.86	YES	
L0004759	0	0.28320E-05	478140.4	3746809.4	448.0	0.00	3.95	1.86	YES	
L0004760	0	0.28320E-05	478148.9	3746809.3	448.0	0.00	3.95	1.86	YES	
L0004761	0	0.28320E-05	478157.4	3746809.3	448.0	0.00	3.95	1.86	YES	
L0004762	0	0.28320E-05	478165.9	3746809.2	448.0	0.00	3.95	1.86	YES	
L0004763	0	0.28320E-05	478174.4	3746809.2	448.0	0.00	3.95	1.86	YES	
L0004764	0	0.18120E-05	478266.8	3746792.2	447.1	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                    CO
 L0004765         0   0.18120E-05  478258.3 3746792.2   447.2     0.00     3.95     1.86     YES
 L0004766         0   0.18120E-05  478249.8 3746792.2   447.4     0.00     3.95     1.86     YES
 L0004767         0   0.18120E-05  478241.3 3746792.1   447.5     0.00     3.95     1.86     YES
 L0004768         0   0.18120E-05  478232.8 3746792.1   447.6     0.00     3.95     1.86     YES
 L0004769         0   0.18120E-05  478224.3 3746792.1   447.8     0.00     3.95     1.86     YES
 L0004770         0   0.18120E-05  478215.8 3746792.1   447.9     0.00     3.95     1.86     YES
 L0004771         0   0.18120E-05  478207.3 3746792.0   448.0     0.00     3.95     1.86     YES
 L0004772         0   0.18120E-05  478198.8 3746792.0   448.0     0.00     3.95     1.86     YES
 L0004773         0   0.18120E-05  478190.3 3746792.0   448.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM10\PM10.isc              ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - -

 L0004774         0   0.18120E-05  478181.8 3746792.0   448.0     0.00     3.95     1.86     YES
 L0004775         0   0.18120E-05  478173.3 3746792.0   448.0     0.00     3.95     1.86     YES
 L0004776         0   0.18120E-05  478164.8 3746791.9   448.0     0.00     3.95     1.86     YES
 L0004777         0   0.18120E-05  478156.3 3746791.9   448.0     0.00     3.95     1.86     YES
 L0004778         0   0.18120E-05  478147.8 3746791.9   448.0     0.00     3.95     1.86     YES
 L0004779         0   0.18120E-05  478139.3 3746791.9   448.0     0.00     3.95     1.86     YES
 L0004780         0   0.18120E-05  478130.8 3746791.9   448.0     0.00     3.95     1.86     YES
 L0004781         0   0.18120E-05  478122.3 3746791.9   448.0     0.00     3.95     1.86     YES
 L0004782         0   0.18120E-05  478113.8 3746791.8   448.0     0.00     3.95     1.86     YES
 L0004783         0   0.18120E-05  478105.3 3746791.8   448.0     0.00     3.95     1.86     YES
 L0004784         0   0.18120E-05  478096.8 3746791.8   448.0     0.00     3.95     1.86     YES
 L0004785         0   0.18120E-05  478088.3 3746791.8   448.0     0.00     3.95     1.86     YES
 L0004786         0   0.18120E-05  478079.8 3746791.8   448.0     0.00     3.95     1.86     YES
 L0004787         0   0.18120E-05  478071.3 3746791.8   448.0     0.00     3.95     1.86     YES
 L0004788         0   0.18120E-05  478062.8 3746791.8   448.0     0.00     3.95     1.86     YES
 L0004789         0   0.18120E-05  478054.3 3746791.7   448.0     0.00     3.95     1.86     YES
 L0004790         0   0.18120E-05  478045.8 3746791.7   448.0     0.00     3.95     1.86     YES
 L0004791         0   0.18120E-05  478037.3 3746791.7   448.0     0.00     3.95     1.86     YES
 L0004792         0   0.18120E-05  478028.8 3746791.7   448.0     0.00     3.95     1.86     YES
 L0004793         0   0.18120E-05  478020.3 3746791.7   448.0     0.00     3.95     1.86     YES
 L0004794         0   0.18120E-05  478011.8 3746791.7   448.0     0.00     3.95     1.86     YES
 L0004795         0   0.18120E-05  478003.3 3746791.7   448.0     0.00     3.95     1.86     YES
 L0004796         0   0.18120E-05  477994.8 3746791.6   448.0     0.00     3.95     1.86     YES
 L0004797         0   0.18120E-05  477986.3 3746791.6   448.0     0.00     3.95     1.86     YES
 L0004798         0   0.18120E-05  477977.8 3746791.6   448.0     0.00     3.95     1.86     YES
 L0004799         0   0.18120E-05  477969.3 3746791.6   448.0     0.00     3.95     1.86     YES
 L0004800         0   0.18120E-05  477960.8 3746791.6   448.0     0.00     3.95     1.86     YES
 L0004801         0   0.18120E-05  477952.3 3746791.6   448.0     0.00     3.95     1.86     YES
 L0004802         0   0.18120E-05  477943.8 3746791.6   448.0     0.00     3.95     1.86     YES
 L0004803         0   0.18120E-05  477935.3 3746791.5   448.0     0.00     3.95     1.86     YES
 L0004804         0   0.18120E-05  477926.8 3746791.5   448.0     0.00     3.95     1.86     YES
 L0004805         0   0.18120E-05  477918.3 3746791.5   448.0     0.00     3.95     1.86     YES
 L0004806         0   0.18120E-05  477909.8 3746791.5   448.0     0.00     3.95     1.86     YES
 L0004807         0   0.18120E-05  477901.3 3746791.5   448.0     0.00     3.95     1.86     YES
 L0004808         0   0.18120E-05  477892.8 3746791.5   448.0     0.00     3.95     1.86     YES
 L0004809         0   0.14680E-05  478222.6 3746935.4   448.0     0.00     3.95     0.47     YES
 L0004810         0   0.14680E-05  478222.6 3746926.9   448.0     0.00     3.95     0.47     YES
 L0004811         0   0.14680E-05  478222.7 3746918.4   448.0     0.00     3.95     0.47     YES
 L0004812         0   0.14680E-05  478222.7 3746909.9   448.0     0.00     3.95     0.47     YES
 L0004813         0   0.14680E-05  478222.8 3746901.4   448.0     0.00     3.95     0.47     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM10\PM10.isc              ***
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

07/08/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004814	0	0.14680E-05	478222.8	3746892.9	448.0	0.00	3.95	0.47	YES	
L0004815	0	0.14680E-05	478222.9	3746884.4	448.0	0.00	3.95	0.47	YES	
L0004816	0	0.14680E-05	478222.9	3746875.9	448.0	0.00	3.95	0.47	YES	
L0004817	0	0.14680E-05	478223.0	3746867.4	448.0	0.00	3.95	0.47	YES	
L0004818	0	0.14680E-05	478223.0	3746858.9	448.0	0.00	3.95	0.47	YES	
L0004819	0	0.14680E-05	478223.1	3746850.4	448.0	0.00	3.95	0.47	YES	
L0004820	0	0.14680E-05	478223.1	3746841.9	448.0	0.00	3.95	0.47	YES	
L0004821	0	0.14680E-05	478223.2	3746833.4	448.0	0.00	3.95	0.47	YES	
L0004822	0	0.14680E-05	478223.3	3746824.9	448.0	0.00	3.95	0.47	YES	
L0004823	0	0.14680E-05	478223.3	3746816.4	448.0	0.00	3.95	0.47	YES	
L0004824	0	0.14680E-05	478231.3	3746815.6	448.0	0.00	3.95	0.47	YES	
L0004825	0	0.14680E-05	478239.8	3746815.3	448.0	0.00	3.95	0.47	YES	
L0004826	0	0.14680E-05	478246.7	3746816.7	447.9	0.00	3.95	0.47	YES	
L0004827	0	0.14680E-05	478246.7	3746825.2	447.9	0.00	3.95	0.47	YES	
L0004828	0	0.14680E-05	478246.6	3746833.7	448.0	0.00	3.95	0.47	YES	
L0004829	0	0.14680E-05	478246.6	3746842.2	448.0	0.00	3.95	0.47	YES	
L0004830	0	0.14680E-05	478246.5	3746850.7	448.0	0.00	3.95	0.47	YES	
L0004831	0	0.14680E-05	478246.5	3746859.2	448.0	0.00	3.95	0.47	YES	
L0004832	0	0.14680E-05	478246.4	3746867.7	448.0	0.00	3.95	0.47	YES	
L0004833	0	0.14680E-05	478246.4	3746876.2	448.0	0.00	3.95	0.47	YES	
L0004834	0	0.14680E-05	478246.3	3746884.7	448.0	0.00	3.95	0.47	YES	
L0004835	0	0.14680E-05	478246.3	3746893.2	448.0	0.00	3.95	0.47	YES	
L0004836	0	0.14680E-05	478246.2	3746901.7	448.0	0.00	3.95	0.47	YES	
L0004837	0	0.14680E-05	478246.2	3746910.2	448.0	0.00	3.95	0.47	YES	
L0004838	0	0.14680E-05	478246.1	3746918.7	448.0	0.00	3.95	0.47	YES	
L0004839	0	0.14680E-05	478246.1	3746927.2	448.0	0.00	3.95	0.47	YES	
L0004840	0	0.14680E-05	478246.0	3746935.7	448.0	0.00	3.95	0.47	YES	
L0004841	0	0.14680E-05	478246.0	3746944.2	448.0	0.00	3.95	0.47	YES	
L0004842	0	0.40940E-06	478222.6	3746935.4	448.0	0.00	3.95	0.47	YES	
L0004843	0	0.40940E-06	478222.6	3746926.9	448.0	0.00	3.95	0.47	YES	
L0004844	0	0.40940E-06	478222.7	3746918.4	448.0	0.00	3.95	0.47	YES	
L0004845	0	0.40940E-06	478222.7	3746909.9	448.0	0.00	3.95	0.47	YES	
L0004846	0	0.40940E-06	478222.8	3746901.4	448.0	0.00	3.95	0.47	YES	
L0004847	0	0.40940E-06	478222.8	3746892.9	448.0	0.00	3.95	0.47	YES	
L0004848	0	0.40940E-06	478222.9	3746884.4	448.0	0.00	3.95	0.47	YES	
L0004849	0	0.40940E-06	478222.9	3746875.9	448.0	0.00	3.95	0.47	YES	
L0004850	0	0.40940E-06	478223.0	3746867.4	448.0	0.00	3.95	0.47	YES	
L0004851	0	0.40940E-06	478223.0	3746858.9	448.0	0.00	3.95	0.47	YES	
L0004852	0	0.40940E-06	478223.1	3746850.4	448.0	0.00	3.95	0.47	YES	
L0004853	0	0.40940E-06	478223.1	3746841.9	448.0	0.00	3.95	0.47	YES	

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM10\PM10.isc ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	CO BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004854	0	0.40940E-06	478223.2	3746833.4	448.0	0.00	3.95	0.47	YES	
L0004855	0	0.40940E-06	478223.3	3746824.9	448.0	0.00	3.95	0.47	YES	
L0004856	0	0.40940E-06	478223.3	3746816.4	448.0	0.00	3.95	0.47	YES	
L0004857	0	0.40940E-06	478231.3	3746815.6	448.0	0.00	3.95	0.47	YES	
L0004858	0	0.40940E-06	478239.8	3746815.3	448.0	0.00	3.95	0.47	YES	
L0004859	0	0.40940E-06	478246.7	3746816.7	447.9	0.00	3.95	0.47	YES	
L0004860	0	0.40940E-06	478246.7	3746825.2	447.9	0.00	3.95	0.47	YES	
L0004861	0	0.40940E-06	478246.6	3746833.7	448.0	0.00	3.95	0.47	YES	
L0004862	0	0.40940E-06	478246.6	3746842.2	448.0	0.00	3.95	0.47	YES	
L0004863	0	0.40940E-06	478246.5	3746850.7	448.0	0.00	3.95	0.47	YES	
L0004864	0	0.40940E-06	478246.5	3746859.2	448.0	0.00	3.95	0.47	YES	
L0004865	0	0.40940E-06	478246.4	3746867.7	448.0	0.00	3.95	0.47	YES	
L0004866	0	0.40940E-06	478246.4	3746876.2	448.0	0.00	3.95	0.47	YES	
L0004867	0	0.40940E-06	478246.3	3746884.7	448.0	0.00	3.95	0.47	YES	
L0004868	0	0.40940E-06	478246.3	3746893.2	448.0	0.00	3.95	0.47	YES	
L0004869	0	0.40940E-06	478246.2	3746901.7	448.0	0.00	3.95	0.47	YES	
L0004870	0	0.40940E-06	478246.2	3746910.2	448.0	0.00	3.95	0.47	YES	
L0004871	0	0.40940E-06	478246.1	3746918.7	448.0	0.00	3.95	0.47	YES	
L0004872	0	0.40940E-06	478246.1	3746927.2	448.0	0.00	3.95	0.47	YES	
L0004873	0	0.40940E-06	478246.0	3746935.7	448.0	0.00	3.95	0.47	YES	
L0004874	0	0.40940E-06	478246.0	3746944.2	448.0	0.00	3.95	0.47	YES	

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
AREA1	0	0.27017E-07	477899.7	3746810.4	448.0	4.00	307.99	138.81	0.00	0.00	YES	

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	L0004734 , L0004735 , L0004736 , L0004737 , L0004738 , L0004739 , L0004740 , L0004741 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
L0004742 , L0004743 , L0004744 , L0004745 , L0004746 , L0004747 , L0004748 , L0004749 ,
L0004750 , L0004751 , L0004752 , L0004753 , L0004754 , L0004755 , L0004756 , L0004757 ,
L0004758 , L0004759 , L0004760 , L0004761 , L0004762 , L0004763 , L0004764 , L0004765 ,
L0004766 , L0004767 , L0004768 , L0004769 , L0004770 , L0004771 , L0004772 , L0004773 ,
L0004774 , L0004775 , L0004776 , L0004777 , L0004778 , L0004779 , L0004780 , L0004781 ,
L0004782 , L0004783 , L0004784 , L0004785 , L0004786 , L0004787 , L0004788 , L0004789 ,
L0004790 , L0004791 , L0004792 , L0004793 , L0004794 , L0004795 , L0004796 , L0004797 ,
L0004798 , L0004799 , L0004800 , L0004801 , L0004802 , L0004803 , L0004804 , L0004805 ,
L0004806 , L0004807 , L0004808 , STCK1 , STCK2 , STCK3 , STCK4 , L0004809 ,
L0004810 , L0004811 , L0004812 , L0004813 , L0004814 , L0004815 , L0004816 , L0004817 ,
L0004818 , L0004819 , L0004820 , L0004821 , L0004822 , L0004823 , L0004824 , L0004825 ,
L0004826 , L0004827 , L0004828 , L0004829 , L0004830 , L0004831 , L0004832 , L0004833 ,
L0004834 , L0004835 , L0004836 , L0004837 , L0004838 , L0004839 , L0004840 , L0004841 ,
L0004842 , L0004843 , L0004844 , L0004845 , L0004846 , L0004847 , L0004848 , L0004849 ,
L0004850 , L0004851 , L0004852 , L0004853 , L0004854 , L0004855 , L0004856 , L0004857 ,
L0004858 , L0004859 , L0004860 , L0004861 , L0004862 , L0004863 , L0004864 , L0004865 ,
L0004866 , L0004867 , L0004868 , L0004869 , L0004870 , L0004871 , L0004872 , L0004873 ,
L0004874 , AREA1 ,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM10\PM10.isc *** *** 07/08/16
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                    CO
             2100516.   L0004734    , L0004735    , L0004736    , L0004737    , L0004738    , L0004739    ,
L0004740    ,
 L0004741    ,

             L0004742    , L0004743    , L0004744    , L0004745    , L0004746    , L0004747    , L0004748    ,
L0004749    ,

             L0004750    , L0004751    , L0004752    , L0004753    , L0004754    , L0004755    , L0004756    ,
L0004757    ,

             L0004758    , L0004759    , L0004760    , L0004761    , L0004762    , L0004763    , L0004764    ,
L0004765    ,

             L0004766    , L0004767    , L0004768    , L0004769    , L0004770    , L0004771    , L0004772    ,
L0004773    ,

             L0004774    , L0004775    , L0004776    , L0004777    , L0004778    , L0004779    , L0004780    ,
L0004781    ,

             L0004782    , L0004783    , L0004784    , L0004785    , L0004786    , L0004787    , L0004788    ,
L0004789    ,

             L0004790    , L0004791    , L0004792    , L0004793    , L0004794    , L0004795    , L0004796    ,
L0004797    ,

             L0004798    , L0004799    , L0004800    , L0004801    , L0004802    , L0004803    , L0004804    ,
L0004805    ,

             L0004806    , L0004807    , L0004808    , STCK1       , STCK2       , STCK3       , STCK4       ,
L0004809    ,

             L0004810    , L0004811    , L0004812    , L0004813    , L0004814    , L0004815    , L0004816    ,
L0004817    ,

             L0004818    , L0004819    , L0004820    , L0004821    , L0004822    , L0004823    , L0004824    ,
L0004825    ,

             L0004826    , L0004827    , L0004828    , L0004829    , L0004830    , L0004831    , L0004832    ,
L0004833    ,

             L0004834    , L0004835    , L0004836    , L0004837    , L0004838    , L0004839    , L0004840    ,
L0004841    ,

             L0004842    , L0004843    , L0004844    , L0004845    , L0004846    , L0004847    , L0004848    ,
L0004849    ,

             L0004850    , L0004851    , L0004852    , L0004853    , L0004854    , L0004855    , L0004856    ,
L0004857    ,

             L0004858    , L0004859    , L0004860    , L0004861    , L0004862    , L0004863    , L0004864    ,
L0004865    ,

             L0004866    , L0004867    , L0004868    , L0004869    , L0004870    , L0004871    , L0004872    ,
L0004873    ,

             L0004874    , AREA1       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM10\PM10.isc                ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  *** DISCRETE CARTESIAN RECEPTORS ***
                                 (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                          (METERS)
```

CO

(478756.5, 3747340.4, 448.0, 448.0, 0.0); (477850.2, 3745739.2, 448.0, 448.0, 0.0);
(477468.3, 3745732.7, 450.0, 450.0, 0.0); (477064.8, 3746275.6, 452.0, 452.0, 0.0);
(476681.9, 3747195.9, 453.0, 453.0, 0.0); (478756.5, 3747340.4, 448.0, 448.0, 0.0);
(477850.2, 3745739.2, 448.0, 448.0, 0.0); (477468.3, 3745732.7, 450.0, 450.0, 0.0);
(477064.8, 3746275.6, 452.0, 452.0, 0.0); (476681.9, 3747195.9, 453.0, 453.0, 0.0);
(478080.5, 3746730.6, 448.0, 448.0, 0.0); (478061.2, 3746985.5, 448.0, 448.0, 0.0);
(478376.0, 3747009.6, 448.0, 448.0, 0.0); (478314.2, 3746847.4, 447.2, 447.2, 0.0);
(478166.2, 3747511.6, 448.0, 448.0, 0.0); (478593.6, 3747910.4, 449.0, 449.0, 0.0);
(478741.6, 3747610.7, 448.0, 448.0, 0.0); (478124.1, 3747953.8, 450.0, 450.0, 0.0);
(478800.1, 3746766.9, 446.0, 446.0, 0.0); (476744.0, 3746652.5, 454.0, 454.0, 0.0);
(476399.7, 3746690.7, 457.0, 457.0, 0.0);

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM10\PM10.isc *** 07/08/16
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1

CO
*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\..\..\peri8.sfc Met Version: 14134
Profile file: ..\..\..\peri8.PFL
Surface format: FREE

Profile format: FREE

Surface station no.: 0 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2007 Year: 2007

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
07	01	01	1	01	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	133.	9.1	279.9	5.5
07	01	01	1	02	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	192.	9.1	279.2	5.5
07	01	01	1	03	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	160.	9.1	277.5	5.5
07	01	01	1	04	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	75.	9.1	277.5	5.5
07	01	01	1	05	-0.6	0.026	-9.000	-9.000	-999.	10.	2.6	0.19	1.00	1.00	0.50	282.	9.1	278.8	5.5
07	01	01	1	06	-0.6	0.026	-9.000	-9.000	-999.	10.	2.6	0.19	1.00	1.00	0.50	96.	9.1	277.5	5.5
07	01	01	1	07	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	129.	9.1	278.1	5.5
07	01	01	1	08	-0.4	0.026	-9.000	-9.000	-999.	10.	3.7	0.19	1.00	0.54	0.50	99.	9.1	277.5	5.5
07	01	01	1	09	27.8	0.091	0.542	0.005	196.	66.	-2.3	0.19	1.00	0.33	0.50	133.	9.1	278.1	5.5
07	01	01	1	10	76.9	0.104	1.050	0.005	516.	81.	-1.3	0.19	1.00	0.26	0.50	174.	9.1	281.4	5.5
07	01	01	1	11	110.0	0.109	1.374	0.009	810.	87.	-1.0	0.19	1.00	0.23	0.50	95.	9.1	284.9	5.5
07	01	01	1	12	125.7	0.201	1.589	0.018	1095.	216.	-5.5	0.19	1.00	0.22	1.30	94.	9.1	288.1	5.5
07	01	01	1	13	121.7	0.287	1.641	0.022	1248.	369.	-16.6	0.19	1.00	0.22	2.20	24.	9.1	291.4	5.5
07	01	01	1	14	102.8	0.414	1.559	0.021	1265.	639.	-59.1	0.19	1.00	0.23	3.60	13.	9.1	292.5	5.5
07	01	01	1	15	69.9	0.619	1.374	0.021	1276.	1169.	-291.2	0.19	1.00	0.27	5.80	318.	9.1	292.0	5.5
07	01	01	1	16	16.8	0.607	0.856	0.021	1277.	1135.	-1137.8	0.19	1.00	0.36	5.80	329.	9.1	291.4	5.5
07	01	01	1	17	-42.2	0.437	-9.000	-9.000	-999.	720.	169.3	0.19	1.00	0.64	4.50	333.	9.1	289.9	5.5
07	01	01	1	18	-18.5	0.353	-9.000	-9.000	-999.	510.	204.1	0.19	1.00	1.00	3.60	305.	9.1	288.8	5.5
07	01	01	1	19	-42.3	0.437	-9.000	-9.000	-999.	692.	168.7	0.19	1.00	1.00	4.50	276.	9.1	287.5	5.5
07	01	01	1	20	-32.3	0.334	-9.000	-9.000	-999.	470.	98.6	0.19	1.00	1.00	3.60	323.	9.1	287.5	5.5
07	01	01	1	21	-36.7	0.380	-9.000	-9.000	-999.	562.	128.3	0.19	1.00	1.00	4.00	322.	9.1	288.1	5.5
07	01	01	1	22	-45.6	0.434	-9.000	-9.000	-999.	685.	153.6	0.19	1.00	1.00	4.50	30.	9.1	288.1	5.5
07	01	01	1	23	-39.7	0.377	-9.000	-9.000	-999.	557.	115.4	0.19	1.00	1.00	4.00	343.	9.1	287.0	5.5
07	01	01	1	24	-7.7	0.093	-9.000	-9.000	-999.	215.	9.1	0.19	1.00	1.00	1.80	155.	9.1	283.8	5.5

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

First hour of profile data
YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaW sigmaV
07 01 01 01 5.5 0 -999. -99.00 279.9 99.0 -99.00 -99.00
07 01 01 01 9.1 1 133. 0.50 -999.0 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L0004734 , L0004735 , L0004736 , L0004737 , L0004738 ,
L0004739 , L0004740 , L0004741 , L0004742 , L0004743 , L0004744 , L0004745 , L0004746 ,
L0004747 , L0004748 , L0004749 , L0004750 , L0004751 , L0004752 , L0004753 , L0004754 ,
L0004755 , L0004756 , L0004757 , L0004758 , L0004759 , L0004760 , L0004761 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	0.01730	(09113024)	477850.17	3745739.17	0.01244	(10073024)
477468.29	3745732.72	0.00817	(09011824)	477064.80	3746275.62	0.00873	(08062424)
476681.88	3747195.89	0.00785	(07122824)	478756.45	3747340.45	0.01730	(09113024)
477850.17	3745739.17	0.01244	(10073024)	477468.29	3745732.72	0.00817	(09011824)
477064.80	3746275.62	0.00873	(08062424)	476681.88	3747195.89	0.00785	(07122824)
478080.50	3746730.56	0.21866	(09050424)	478061.18	3746985.48	0.32032	(07102624)
478375.97	3747009.62	0.05618	(09082524)	478314.17	3746847.40	0.13898	(08020224)
478166.25	3747511.58	0.03712	(09021224)	478593.58	3747910.42	0.01583m	(10021924)
478741.65	3747610.66	0.01632	(09120524)	478124.08	3747953.76	0.01906	(09021224)
478800.07	3746766.89	0.01990	(08020224)	476744.03	3746652.46	0.00967m	(08010224)
476399.72	3746690.72	0.00800m	(08010224)				

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM10\PM10.isc ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                CO
                                  ** CONC OF PM_10    IN MICROGRAMS/M**3                        **

                                                DATE
         NETWORK
GROUP ID                            AVERAGE CONC     (YYMMDDHH)             RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)
 OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS       0.32032  ON 07102624: AT (  478061.18,  3746985.48,   448.00,   448.00,
0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM10\PM10.isc             ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
   11:36:09

   PAGE  15
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of         1895 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of           90 Calm Hours Identified

 A Total of         1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 7/8/2016
** File: C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM25\PM25.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM25\PM25.isc
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 2100516
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL PM25.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling (Trucks)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00008129
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477923.678, 3746810.357, 448.00, 0.00, 3.95
** 478177.247, 3746809.187, 448.00, 0.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0004875     VOLUME   477927.928 3746810.338 448.00
   LOCATION L0004876     VOLUME   477936.428 3746810.298 448.00
   LOCATION L0004877     VOLUME   477944.928 3746810.259 448.00
   LOCATION L0004878     VOLUME   477953.428 3746810.220 448.00
   LOCATION L0004879     VOLUME   477961.928 3746810.181 448.00
   LOCATION L0004880     VOLUME   477970.428 3746810.142 448.00
   LOCATION L0004881     VOLUME   477978.928 3746810.102 448.00
   LOCATION L0004882     VOLUME   477987.428 3746810.063 448.00
   LOCATION L0004883     VOLUME   477995.928 3746810.024 448.00
   LOCATION L0004884     VOLUME   478004.428 3746809.985 448.00
   LOCATION L0004885     VOLUME   478012.927 3746809.946 448.00
   LOCATION L0004886     VOLUME   478021.427 3746809.906 448.00
   LOCATION L0004887     VOLUME   478029.927 3746809.867 448.00
   LOCATION L0004888     VOLUME   478038.427 3746809.828 448.00
   LOCATION L0004889     VOLUME   478046.927 3746809.789 448.00
   LOCATION L0004890     VOLUME   478055.427 3746809.749 448.00
   LOCATION L0004891     VOLUME   478063.927 3746809.710 448.00
   LOCATION L0004892     VOLUME   478072.427 3746809.671 448.00
   LOCATION L0004893     VOLUME   478080.927 3746809.632 448.00
   LOCATION L0004894     VOLUME   478089.427 3746809.593 448.00
   LOCATION L0004895     VOLUME   478097.927 3746809.553 448.00
   LOCATION L0004896     VOLUME   478106.426 3746809.514 448.00
   LOCATION L0004897     VOLUME   478114.926 3746809.475 448.00
   LOCATION L0004898     VOLUME   478123.426 3746809.436 448.00
   LOCATION L0004899     VOLUME   478131.926 3746809.396 448.00
   LOCATION L0004900     VOLUME   478140.426 3746809.357 448.00
   LOCATION L0004901     VOLUME   478148.926 3746809.318 448.00
   LOCATION L0004902     VOLUME   478157.426 3746809.279 448.00
   LOCATION L0004903     VOLUME   478165.926 3746809.240 448.00
   LOCATION L0004904     VOLUME   478174.426 3746809.200 448.00
** End of LINE VOLUME Source ID = SLINE6
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel (Trucks)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00007797
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 478271.074, 3746792.209, 447.08, 0.00, 3.95
** 478177.349, 3746791.961, 448.00, 0.00, 3.95
** 477890.952, 3746791.463, 448.00, 0.00, 3.95
** ------------------------------------------------------------------
   LOCATION L0004905     VOLUME   478266.824 3746792.198 447.05
   LOCATION L0004906     VOLUME   478258.324 3746792.175 447.21
   LOCATION L0004907     VOLUME   478249.824 3746792.153 447.36
   LOCATION L0004908     VOLUME   478241.324 3746792.130 447.51
   LOCATION L0004909     VOLUME   478232.824 3746792.108 447.64
   LOCATION L0004910     VOLUME   478224.325 3746792.085 447.77
   LOCATION L0004911     VOLUME   478215.825 3746792.063 447.91
   LOCATION L0004912     VOLUME   478207.325 3746792.040 448.00
   LOCATION L0004913     VOLUME   478198.825 3746792.018 448.00
   LOCATION L0004914     VOLUME   478190.325 3746791.995 448.00
   LOCATION L0004915     VOLUME   478181.825 3746791.972 448.00
   LOCATION L0004916     VOLUME   478173.325 3746791.954 448.00
   LOCATION L0004917     VOLUME   478164.825 3746791.939 448.00
   LOCATION L0004918     VOLUME   478156.325 3746791.924 448.00
   LOCATION L0004919     VOLUME   478147.825 3746791.909 448.00
   LOCATION L0004920     VOLUME   478139.325 3746791.895 448.00
   LOCATION L0004921     VOLUME   478130.825 3746791.880 448.00
   LOCATION L0004922     VOLUME   478122.325 3746791.865 448.00
   LOCATION L0004923     VOLUME   478113.825 3746791.850 448.00
   LOCATION L0004924     VOLUME   478105.325 3746791.836 448.00
   LOCATION L0004925     VOLUME   478096.825 3746791.821 448.00
   LOCATION L0004926     VOLUME   478088.325 3746791.806 448.00
   LOCATION L0004927     VOLUME   478079.825 3746791.791 448.00
   LOCATION L0004928     VOLUME   478071.325 3746791.777 448.00
   LOCATION L0004929     VOLUME   478062.825 3746791.762 448.00
   LOCATION L0004930     VOLUME   478054.325 3746791.747 448.00
   LOCATION L0004931     VOLUME   478045.825 3746791.732 448.00
   LOCATION L0004932     VOLUME   478037.325 3746791.717 448.00
   LOCATION L0004933     VOLUME   478028.825 3746791.703 448.00
   LOCATION L0004934     VOLUME   478020.325 3746791.688 448.00
   LOCATION L0004935     VOLUME   478011.825 3746791.673 448.00
   LOCATION L0004936     VOLUME   478003.325 3746791.658 448.00
   LOCATION L0004937     VOLUME   477994.825 3746791.644 448.00
   LOCATION L0004938     VOLUME   477986.325 3746791.629 448.00
   LOCATION L0004939     VOLUME   477977.825 3746791.614 448.00
   LOCATION L0004940     VOLUME   477969.325 3746791.599 448.00
   LOCATION L0004941     VOLUME   477960.825 3746791.585 448.00
   LOCATION L0004942     VOLUME   477952.325 3746791.570 448.00
   LOCATION L0004943     VOLUME   477943.825 3746791.555 448.00
   LOCATION L0004944     VOLUME   477935.325 3746791.540 448.00
   LOCATION L0004945     VOLUME   477926.825 3746791.526 448.00
   LOCATION L0004946     VOLUME   477918.325 3746791.511 448.00
   LOCATION L0004947     VOLUME   477909.825 3746791.496 448.00
   LOCATION L0004948     VOLUME   477901.325 3746791.481 448.00
   LOCATION L0004949     VOLUME   477892.825 3746791.467 448.00
** End of LINE VOLUME Source ID = SLINE7
   LOCATION STCK1        POINT      477935.000  3746812.710      448.000
** DESCRSRC TRU Idling
   LOCATION STCK2        POINT      477996.522  3746810.249      448.000
** DESCRSRC TRU Idling
   LOCATION STCK3        POINT      478082.653  3746811.233      448.000
** DESCRSRC TRU Idling
   LOCATION STCK4        POINT      478157.955  3746809.757      448.000
** DESCRSRC TRU Idling
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Idling (Passenger Cars)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0000446
** Vertical Dimension = 1.00
** SZINIT = 0.47
** Nodes = 4
** 478222.532, 3746939.639, 448.00, 0.00, 3.95
** 478223.313, 3746815.882, 448.00, 0.00, 3.95
** 478246.737, 3746815.102, 447.79, 0.00, 3.95
** 478245.956, 3746948.618, 448.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0004950     VOLUME   478222.559 3746935.389 448.00
   LOCATION L0004951     VOLUME   478222.613 3746926.889 448.00
   LOCATION L0004952     VOLUME   478222.666 3746918.389 448.00
   LOCATION L0004953     VOLUME   478222.720 3746909.889 448.00
   LOCATION L0004954     VOLUME   478222.774 3746901.389 448.00
   LOCATION L0004955     VOLUME   478222.827 3746892.889 448.00
   LOCATION L0004956     VOLUME   478222.881 3746884.390 448.00
   LOCATION L0004957     VOLUME   478222.935 3746875.890 448.00
   LOCATION L0004958     VOLUME   478222.988 3746867.390 448.00
   LOCATION L0004959     VOLUME   478223.042 3746858.890 448.00
   LOCATION L0004960     VOLUME   478223.095 3746850.390 448.00
   LOCATION L0004961     VOLUME   478223.149 3746841.890 448.00
   LOCATION L0004962     VOLUME   478223.203 3746833.391 448.00
   LOCATION L0004963     VOLUME   478223.256 3746824.891 448.00
   LOCATION L0004964     VOLUME   478223.310 3746816.391 448.00
   LOCATION L0004965     VOLUME   478231.300 3746815.616 448.00
   LOCATION L0004966     VOLUME   478239.795 3746815.333 448.00
   LOCATION L0004967     VOLUME   478246.728 3746816.656 447.85
   LOCATION L0004968     VOLUME   478246.678 3746825.156 447.92
   LOCATION L0004969     VOLUME   478246.629 3746833.656 447.98
   LOCATION L0004970     VOLUME   478246.579 3746842.155 448.00
   LOCATION L0004971     VOLUME   478246.529 3746850.655 448.00
   LOCATION L0004972     VOLUME   478246.479 3746859.155 448.00
   LOCATION L0004973     VOLUME   478246.430 3746867.655 448.00
   LOCATION L0004974     VOLUME   478246.380 3746876.155 448.00
   LOCATION L0004975     VOLUME   478246.330 3746884.655 448.00
   LOCATION L0004976     VOLUME   478246.281 3746893.155 448.00
   LOCATION L0004977     VOLUME   478246.231 3746901.654 448.00
   LOCATION L0004978     VOLUME   478246.181 3746910.154 448.00
   LOCATION L0004979     VOLUME   478246.132 3746918.654 448.00
   LOCATION L0004980     VOLUME   478246.082 3746927.154 448.00
   LOCATION L0004981     VOLUME   478246.032 3746935.654 448.00
   LOCATION L0004982     VOLUME   478245.982 3746944.154 448.00
** End of LINE VOLUME Source ID = SLINE8
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel (Passenger Cars)
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001245
** Vertical Dimension = 1.00
** SZINIT = 0.47
** Nodes = 4
** 478222.532, 3746939.639, 448.00, 0.00, 3.95
** 478223.313, 3746815.882, 448.00, 0.00, 3.95
** 478246.737, 3746815.102, 447.79, 0.00, 3.95
** 478245.956, 3746948.618, 448.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0004983     VOLUME   478222.559 3746935.389 448.00
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                    CO
   LOCATION L0004984     VOLUME   478222.613 3746926.889 448.00
   LOCATION L0004985     VOLUME   478222.666 3746918.389 448.00
   LOCATION L0004986     VOLUME   478222.720 3746909.889 448.00
   LOCATION L0004987     VOLUME   478222.774 3746901.389 448.00
   LOCATION L0004988     VOLUME   478222.827 3746892.889 448.00
   LOCATION L0004989     VOLUME   478222.881 3746884.390 448.00
   LOCATION L0004990     VOLUME   478222.935 3746875.890 448.00
   LOCATION L0004991     VOLUME   478222.988 3746867.390 448.00
   LOCATION L0004992     VOLUME   478223.042 3746858.890 448.00
   LOCATION L0004993     VOLUME   478223.095 3746850.390 448.00
   LOCATION L0004994     VOLUME   478223.149 3746841.890 448.00
   LOCATION L0004995     VOLUME   478223.203 3746833.391 448.00
   LOCATION L0004996     VOLUME   478223.256 3746824.891 448.00
   LOCATION L0004997     VOLUME   478223.310 3746816.391 448.00
   LOCATION L0004998     VOLUME   478231.300 3746815.616 448.00
   LOCATION L0004999     VOLUME   478239.795 3746815.333 448.00
   LOCATION L0005000     VOLUME   478246.728 3746816.656 447.85
   LOCATION L0005001     VOLUME   478246.678 3746825.156 447.92
   LOCATION L0005002     VOLUME   478246.629 3746833.656 447.98
   LOCATION L0005003     VOLUME   478246.579 3746842.155 448.00
   LOCATION L0005004     VOLUME   478246.529 3746850.655 448.00
   LOCATION L0005005     VOLUME   478246.479 3746859.155 448.00
   LOCATION L0005006     VOLUME   478246.430 3746867.655 448.00
   LOCATION L0005007     VOLUME   478246.380 3746876.155 448.00
   LOCATION L0005008     VOLUME   478246.330 3746884.655 448.00
   LOCATION L0005009     VOLUME   478246.281 3746893.155 448.00
   LOCATION L0005010     VOLUME   478246.231 3746901.654 448.00
   LOCATION L0005011     VOLUME   478246.181 3746910.154 448.00
   LOCATION L0005012     VOLUME   478246.132 3746918.654 448.00
   LOCATION L0005013     VOLUME   478246.082 3746927.154 448.00
   LOCATION L0005014     VOLUME   478246.032 3746935.654 448.00
   LOCATION L0005015     VOLUME   478245.982 3746944.154 448.00
** End of LINE VOLUME Source ID = SLINE9
   LOCATION AREA1        AREA      477899.720  3746810.370      448.000
** DESCRSRC On-Site Sources
** Source Parameters **
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0004875     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004876     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004877     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004878     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004879     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004880     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004881     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004882     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004883     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004884     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004885     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004886     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004887     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004888     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004889     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004890     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004891     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004892     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004893     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004894     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004895     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004896     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004897     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004898     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004899     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004900     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004901     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004902     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004903     0.00000271      0.00      3.95      1.86
   SRCPARAM L0004904     0.00000271      0.00      3.95      1.86
```

```
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0004905     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004906     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004907     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004908     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004909     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004910     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004911     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004912     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004913     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004914     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004915     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004916     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004917     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004918     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004919     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004920     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004921     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004922     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004923     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004924     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004925     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004926     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004927     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004928     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004929     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004930     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004931     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004932     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004933     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004934     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004935     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004936     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004937     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004938     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004939     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004940     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004941     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004942     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004943     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004944     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004945     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004946     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004947     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004948     0.000001733      0.00      3.95      1.86
   SRCPARAM L0004949     0.000001733      0.00      3.95      1.86
** ----------------------------------------------------------------------
   SRCPARAM STCK1        0.000020856     3.960   501.000  49.98300     0.044
   SRCPARAM STCK2        0.000020856     3.960   501.000  49.98300     0.044
   SRCPARAM STCK3        0.000020856     3.960   501.000  49.98300     0.044
   SRCPARAM STCK4        0.000020856     3.960   501.000  49.98300     0.044
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0004950     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004951     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004952     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004953     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004954     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004955     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004956     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004957     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004958     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004959     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004960     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004961     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004962     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004963     0.000001352      0.00      3.95      0.47
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                    CO
   SRCPARAM L0004964     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004965     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004966     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004967     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004968     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004969     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004970     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004971     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004972     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004973     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004974     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004975     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004976     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004977     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004978     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004979     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004980     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004981     0.000001352      0.00      3.95      0.47
   SRCPARAM L0004982     0.000001352      0.00      3.95      0.47
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0004983     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004984     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004985     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004986     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004987     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004988     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004989     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004990     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004991     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004992     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004993     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004994     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004995     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004996     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004997     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004998     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0004999     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005000     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005001     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005002     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005003     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005004     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005005     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005006     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005007     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005008     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005009     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005010     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005011     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005012     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005013     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005014     0.0000003773      0.00      3.95      0.47
   SRCPARAM L0005015     0.0000003773      0.00      3.95      0.47
** ---------------------------------------------------------------------
   SRCPARAM AREA1        2.4559E-08     4.000   307.990   138.810     0.000
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED PM25.rou
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\..\..\peri8.sfc
   PROFFILE ..\..\..\peri8.PFL
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST PM25.AD\24H1GALL.PLT 31
   SUMMFILE PM25.sum
OU FINISHED

 *********************************
 *** SETUP Finishes Successfully ***
 *********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM25\PM25.isc             ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   11:48:27

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   146 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        TEMP_Sub - Meteorological data includes TEMP substitutions
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates  1 Short Term Average(s) of:  24-HR

 **This Run Includes:    146 Source(s);       1 Source Group(s); and      21 Receptor(s)

               with:      4 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:    141 VOLUME source(s)
                and:      1 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                  Emission Units = GRAMS/SEC                              ;  Emission Rate Unit Factor =
0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.6 MB of RAM.

 **Detailed Error/Message File:   PM25.err

 **File for Summary of Results:   PM25.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM25\PM25.isc             ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
   11:48:27

   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** POINT SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     STACK   STACK    STACK     STACK    BLDG   URBAN
CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS SOURCE
HOR   SCALAR
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)
    VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -

 STCK1            0   0.20856E-04  477935.0 3746812.7   448.0     3.96   501.00    49.98     0.04    NO      YES
NO
 STCK2            0   0.20856E-04  477996.5 3746810.2   448.0     3.96   501.00    49.98     0.04    NO      YES
NO
 STCK3            0   0.20856E-04  478082.7 3746811.2   448.0     3.96   501.00    49.98     0.04    NO      YES
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
NO
STCK4 0 0.20856E-04 478158.0 3746809.8 448.0 3.96 501.00 49.98 0.04 NO YES
NO

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004875	0	0.27100E-05	477927.9	3746810.3	448.0	0.00	3.95	1.86	YES	
L0004876	0	0.27100E-05	477936.4	3746810.3	448.0	0.00	3.95	1.86	YES	
L0004877	0	0.27100E-05	477944.9	3746810.3	448.0	0.00	3.95	1.86	YES	
L0004878	0	0.27100E-05	477953.4	3746810.2	448.0	0.00	3.95	1.86	YES	
L0004879	0	0.27100E-05	477961.9	3746810.2	448.0	0.00	3.95	1.86	YES	
L0004880	0	0.27100E-05	477970.4	3746810.1	448.0	0.00	3.95	1.86	YES	
L0004881	0	0.27100E-05	477978.9	3746810.1	448.0	0.00	3.95	1.86	YES	
L0004882	0	0.27100E-05	477987.4	3746810.1	448.0	0.00	3.95	1.86	YES	
L0004883	0	0.27100E-05	477995.9	3746810.0	448.0	0.00	3.95	1.86	YES	
L0004884	0	0.27100E-05	478004.4	3746810.0	448.0	0.00	3.95	1.86	YES	
L0004885	0	0.27100E-05	478012.9	3746809.9	448.0	0.00	3.95	1.86	YES	
L0004886	0	0.27100E-05	478021.4	3746809.9	448.0	0.00	3.95	1.86	YES	
L0004887	0	0.27100E-05	478029.9	3746809.9	448.0	0.00	3.95	1.86	YES	
L0004888	0	0.27100E-05	478038.4	3746809.8	448.0	0.00	3.95	1.86	YES	
L0004889	0	0.27100E-05	478046.9	3746809.8	448.0	0.00	3.95	1.86	YES	
L0004890	0	0.27100E-05	478055.4	3746809.7	448.0	0.00	3.95	1.86	YES	
L0004891	0	0.27100E-05	478063.9	3746809.7	448.0	0.00	3.95	1.86	YES	
L0004892	0	0.27100E-05	478072.4	3746809.7	448.0	0.00	3.95	1.86	YES	
L0004893	0	0.27100E-05	478080.9	3746809.6	448.0	0.00	3.95	1.86	YES	
L0004894	0	0.27100E-05	478089.4	3746809.6	448.0	0.00	3.95	1.86	YES	
L0004895	0	0.27100E-05	478097.9	3746809.6	448.0	0.00	3.95	1.86	YES	
L0004896	0	0.27100E-05	478106.4	3746809.5	448.0	0.00	3.95	1.86	YES	
L0004897	0	0.27100E-05	478114.9	3746809.5	448.0	0.00	3.95	1.86	YES	
L0004898	0	0.27100E-05	478123.4	3746809.4	448.0	0.00	3.95	1.86	YES	
L0004899	0	0.27100E-05	478131.9	3746809.4	448.0	0.00	3.95	1.86	YES	
L0004900	0	0.27100E-05	478140.4	3746809.4	448.0	0.00	3.95	1.86	YES	
L0004901	0	0.27100E-05	478148.9	3746809.3	448.0	0.00	3.95	1.86	YES	
L0004902	0	0.27100E-05	478157.4	3746809.3	448.0	0.00	3.95	1.86	YES	
L0004903	0	0.27100E-05	478165.9	3746809.2	448.0	0.00	3.95	1.86	YES	
L0004904	0	0.27100E-05	478174.4	3746809.2	448.0	0.00	3.95	1.86	YES	
L0004905	0	0.17330E-05	478266.8	3746792.2	447.1	0.00	3.95	1.86	YES	
L0004906	0	0.17330E-05	478258.3	3746792.2	447.2	0.00	3.95	1.86	YES	
L0004907	0	0.17330E-05	478249.8	3746792.2	447.4	0.00	3.95	1.86	YES	
L0004908	0	0.17330E-05	478241.3	3746792.1	447.5	0.00	3.95	1.86	YES	
L0004909	0	0.17330E-05	478232.8	3746792.1	447.6	0.00	3.95	1.86	YES	
L0004910	0	0.17330E-05	478224.3	3746792.1	447.8	0.00	3.95	1.86	YES	
L0004911	0	0.17330E-05	478215.8	3746792.1	447.9	0.00	3.95	1.86	YES	
L0004912	0	0.17330E-05	478207.3	3746792.0	448.0	0.00	3.95	1.86	YES	
L0004913	0	0.17330E-05	478198.8	3746792.0	448.0	0.00	3.95	1.86	YES	
L0004914	0	0.17330E-05	478190.3	3746792.0	448.0	0.00	3.95	1.86	YES	

**MODELOPTs: RegDFAULT CONC ELEV URBAN

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004915	0	0.17330E-05	478181.8	3746792.0	448.0	0.00	3.95	1.86	YES	
L0004916	0	0.17330E-05	478173.3	3746792.0	448.0	0.00	3.95	1.86	YES	
L0004917	0	0.17330E-05	478164.8	3746791.9	448.0	0.00	3.95	1.86	YES	
L0004918	0	0.17330E-05	478156.3	3746791.9	448.0	0.00	3.95	1.86	YES	
L0004919	0	0.17330E-05	478147.8	3746791.9	448.0	0.00	3.95	1.86	YES	
L0004920	0	0.17330E-05	478139.3	3746791.9	448.0	0.00	3.95	1.86	YES	
L0004921	0	0.17330E-05	478130.8	3746791.9	448.0	0.00	3.95	1.86	YES	
L0004922	0	0.17330E-05	478122.3	3746791.9	448.0	0.00	3.95	1.86	YES	
L0004923	0	0.17330E-05	478113.8	3746791.8	448.0	0.00	3.95	1.86	YES	
L0004924	0	0.17330E-05	478105.3	3746791.8	448.0	0.00	3.95	1.86	YES	
L0004925	0	0.17330E-05	478096.8	3746791.8	448.0	0.00	3.95	1.86	YES	
L0004926	0	0.17330E-05	478088.3	3746791.8	448.0	0.00	3.95	1.86	YES	
L0004927	0	0.17330E-05	478079.8	3746791.8	448.0	0.00	3.95	1.86	YES	
L0004928	0	0.17330E-05	478071.3	3746791.8	448.0	0.00	3.95	1.86	YES	
L0004929	0	0.17330E-05	478062.8	3746791.8	448.0	0.00	3.95	1.86	YES	
L0004930	0	0.17330E-05	478054.3	3746791.7	448.0	0.00	3.95	1.86	YES	
L0004931	0	0.17330E-05	478045.8	3746791.7	448.0	0.00	3.95	1.86	YES	
L0004932	0	0.17330E-05	478037.3	3746791.7	448.0	0.00	3.95	1.86	YES	
L0004933	0	0.17330E-05	478028.8	3746791.7	448.0	0.00	3.95	1.86	YES	
L0004934	0	0.17330E-05	478020.3	3746791.7	448.0	0.00	3.95	1.86	YES	
L0004935	0	0.17330E-05	478011.8	3746791.7	448.0	0.00	3.95	1.86	YES	
L0004936	0	0.17330E-05	478003.3	3746791.7	448.0	0.00	3.95	1.86	YES	
L0004937	0	0.17330E-05	477994.8	3746791.6	448.0	0.00	3.95	1.86	YES	
L0004938	0	0.17330E-05	477986.3	3746791.6	448.0	0.00	3.95	1.86	YES	
L0004939	0	0.17330E-05	477977.8	3746791.6	448.0	0.00	3.95	1.86	YES	
L0004940	0	0.17330E-05	477969.3	3746791.6	448.0	0.00	3.95	1.86	YES	
L0004941	0	0.17330E-05	477960.8	3746791.6	448.0	0.00	3.95	1.86	YES	
L0004942	0	0.17330E-05	477952.3	3746791.6	448.0	0.00	3.95	1.86	YES	
L0004943	0	0.17330E-05	477943.8	3746791.6	448.0	0.00	3.95	1.86	YES	
L0004944	0	0.17330E-05	477935.3	3746791.5	448.0	0.00	3.95	1.86	YES	
L0004945	0	0.17330E-05	477926.8	3746791.5	448.0	0.00	3.95	1.86	YES	
L0004946	0	0.17330E-05	477918.3	3746791.5	448.0	0.00	3.95	1.86	YES	
L0004947	0	0.17330E-05	477909.8	3746791.5	448.0	0.00	3.95	1.86	YES	
L0004948	0	0.17330E-05	477901.3	3746791.5	448.0	0.00	3.95	1.86	YES	
L0004949	0	0.17330E-05	477892.8	3746791.5	448.0	0.00	3.95	1.86	YES	
L0004950	0	0.13520E-05	478222.6	3746935.4	448.0	0.00	3.95	0.47	YES	
L0004951	0	0.13520E-05	478222.6	3746926.9	448.0	0.00	3.95	0.47	YES	
L0004952	0	0.13520E-05	478222.7	3746918.4	448.0	0.00	3.95	0.47	YES	
L0004953	0	0.13520E-05	478222.7	3746909.9	448.0	0.00	3.95	0.47	YES	
L0004954	0	0.13520E-05	478222.8	3746901.4	448.0	0.00	3.95	0.47	YES	

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM25\PM25.isc *** *** 07/08/16

*** AERMET - VERSION 14134 *** *** *** 11:48:27

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO

L0004955	0	0.13520E-05	478222.8	3746892.9	448.0	0.00	3.95	0.47	YES
L0004956	0	0.13520E-05	478222.9	3746884.4	448.0	0.00	3.95	0.47	YES
L0004957	0	0.13520E-05	478222.9	3746875.9	448.0	0.00	3.95	0.47	YES
L0004958	0	0.13520E-05	478223.0	3746867.4	448.0	0.00	3.95	0.47	YES
L0004959	0	0.13520E-05	478223.0	3746858.9	448.0	0.00	3.95	0.47	YES
L0004960	0	0.13520E-05	478223.1	3746850.4	448.0	0.00	3.95	0.47	YES
L0004961	0	0.13520E-05	478223.1	3746841.9	448.0	0.00	3.95	0.47	YES
L0004962	0	0.13520E-05	478223.2	3746833.4	448.0	0.00	3.95	0.47	YES
L0004963	0	0.13520E-05	478223.3	3746824.9	448.0	0.00	3.95	0.47	YES
L0004964	0	0.13520E-05	478223.3	3746816.4	448.0	0.00	3.95	0.47	YES
L0004965	0	0.13520E-05	478231.3	3746815.6	448.0	0.00	3.95	0.47	YES
L0004966	0	0.13520E-05	478239.8	3746815.3	448.0	0.00	3.95	0.47	YES
L0004967	0	0.13520E-05	478246.7	3746816.7	447.9	0.00	3.95	0.47	YES
L0004968	0	0.13520E-05	478246.7	3746825.2	447.9	0.00	3.95	0.47	YES
L0004969	0	0.13520E-05	478246.6	3746833.7	448.0	0.00	3.95	0.47	YES
L0004970	0	0.13520E-05	478246.6	3746842.2	448.0	0.00	3.95	0.47	YES
L0004971	0	0.13520E-05	478246.5	3746850.7	448.0	0.00	3.95	0.47	YES
L0004972	0	0.13520E-05	478246.5	3746859.2	448.0	0.00	3.95	0.47	YES
L0004973	0	0.13520E-05	478246.4	3746867.7	448.0	0.00	3.95	0.47	YES
L0004974	0	0.13520E-05	478246.4	3746876.2	448.0	0.00	3.95	0.47	YES
L0004975	0	0.13520E-05	478246.3	3746884.7	448.0	0.00	3.95	0.47	YES
L0004976	0	0.13520E-05	478246.3	3746893.2	448.0	0.00	3.95	0.47	YES
L0004977	0	0.13520E-05	478246.2	3746901.7	448.0	0.00	3.95	0.47	YES
L0004978	0	0.13520E-05	478246.2	3746910.2	448.0	0.00	3.95	0.47	YES
L0004979	0	0.13520E-05	478246.1	3746918.7	448.0	0.00	3.95	0.47	YES
L0004980	0	0.13520E-05	478246.1	3746927.2	448.0	0.00	3.95	0.47	YES
L0004981	0	0.13520E-05	478246.0	3746935.7	448.0	0.00	3.95	0.47	YES
L0004982	0	0.13520E-05	478246.0	3746944.2	448.0	0.00	3.95	0.47	YES
L0004983	0	0.37730E-06	478222.6	3746935.4	448.0	0.00	3.95	0.47	YES
L0004984	0	0.37730E-06	478222.6	3746926.9	448.0	0.00	3.95	0.47	YES
L0004985	0	0.37730E-06	478222.7	3746918.4	448.0	0.00	3.95	0.47	YES
L0004986	0	0.37730E-06	478222.7	3746909.9	448.0	0.00	3.95	0.47	YES
L0004987	0	0.37730E-06	478222.8	3746901.4	448.0	0.00	3.95	0.47	YES
L0004988	0	0.37730E-06	478222.8	3746892.9	448.0	0.00	3.95	0.47	YES
L0004989	0	0.37730E-06	478222.9	3746884.4	448.0	0.00	3.95	0.47	YES
L0004990	0	0.37730E-06	478222.9	3746875.9	448.0	0.00	3.95	0.47	YES
L0004991	0	0.37730E-06	478223.0	3746867.4	448.0	0.00	3.95	0.47	YES
L0004992	0	0.37730E-06	478223.0	3746858.9	448.0	0.00	3.95	0.47	YES
L0004993	0	0.37730E-06	478223.1	3746850.4	448.0	0.00	3.95	0.47	YES
L0004994	0	0.37730E-06	478223.1	3746841.9	448.0	0.00	3.95	0.47	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004995	0	0.37730E-06	478223.2	3746833.4	448.0	0.00	3.95	0.47	YES	
L0004996	0	0.37730E-06	478223.3	3746824.9	448.0	0.00	3.95	0.47	YES	
L0004997	0	0.37730E-06	478223.3	3746816.4	448.0	0.00	3.95	0.47	YES	
L0004998	0	0.37730E-06	478231.3	3746815.6	448.0	0.00	3.95	0.47	YES	
L0004999	0	0.37730E-06	478239.8	3746815.3	448.0	0.00	3.95	0.47	YES	
L0005000	0	0.37730E-06	478246.7	3746816.7	447.9	0.00	3.95	0.47	YES	
L0005001	0	0.37730E-06	478246.7	3746825.2	447.9	0.00	3.95	0.47	YES	
L0005002	0	0.37730E-06	478246.6	3746833.7	448.0	0.00	3.95	0.47	YES	
L0005003	0	0.37730E-06	478246.6	3746842.2	448.0	0.00	3.95	0.47	YES	
L0005004	0	0.37730E-06	478246.5	3746850.7	448.0	0.00	3.95	0.47	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                    CO
 L0005005         0   0.37730E-06  478246.5 3746859.2   448.0     0.00     3.95     0.47     YES
 L0005006         0   0.37730E-06  478246.4 3746867.7   448.0     0.00     3.95     0.47     YES
 L0005007         0   0.37730E-06  478246.4 3746876.2   448.0     0.00     3.95     0.47     YES
 L0005008         0   0.37730E-06  478246.3 3746884.7   448.0     0.00     3.95     0.47     YES
 L0005009         0   0.37730E-06  478246.3 3746893.2   448.0     0.00     3.95     0.47     YES
 L0005010         0   0.37730E-06  478246.2 3746901.7   448.0     0.00     3.95     0.47     YES
 L0005011         0   0.37730E-06  478246.2 3746910.2   448.0     0.00     3.95     0.47     YES
 L0005012         0   0.37730E-06  478246.1 3746918.7   448.0     0.00     3.95     0.47     YES
 L0005013         0   0.37730E-06  478246.1 3746927.2   448.0     0.00     3.95     0.47     YES
 L0005014         0   0.37730E-06  478246.0 3746935.7   448.0     0.00     3.95     0.47     YES
 L0005015         0   0.37730E-06  478246.0 3746944.2   448.0     0.00     3.95     0.47     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM25\PM25.isc              ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          *** AREA SOURCE DATA ***

              NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM     Y-DIM    ORIENT.    INIT.
URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT  OF AREA   OF AREA   OF AREA     SZ
SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)  (METERS)   (DEG.)  (METERS)
       BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

 AREA1            0   0.24559E-07  477899.7 3746810.4   448.0     4.00    307.99    138.81      0.00     0.00
YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM25\PM25.isc              ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
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   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                          SOURCE IDs
 -----------                                          ----------


  ALL        L0004875    , L0004876    , L0004877    , L0004878    , L0004879    , L0004880    , L0004881    ,
L0004882    ,

             L0004883    , L0004884    , L0004885    , L0004886    , L0004887    , L0004888    , L0004889    ,
L0004890    ,

             L0004891    , L0004892    , L0004893    , L0004894    , L0004895    , L0004896    , L0004897    ,
L0004898    ,

             L0004899    , L0004900    , L0004901    , L0004902    , L0004903    , L0004904    , L0004905    ,
L0004906    ,

             L0004907    , L0004908    , L0004909    , L0004910    , L0004911    , L0004912    , L0004913    ,
L0004914    ,

             L0004915    , L0004916    , L0004917    , L0004918    , L0004919    , L0004920    , L0004921    ,
L0004922    ,

             L0004923    , L0004924    , L0004925    , L0004926    , L0004927    , L0004928    , L0004929    ,
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
L0004930 ,
L0004931 , L0004932 , L0004933 , L0004934 , L0004935 , L0004936 , L0004937 ,
L0004938 ,
L0004939 , L0004940 , L0004941 , L0004942 , L0004943 , L0004944 , L0004945 ,
L0004946 ,
L0004947 , L0004948 , L0004949 , STCK1 , STCK2 , STCK3 , STCK4 ,
L0004950 ,
L0004951 , L0004952 , L0004953 , L0004954 , L0004955 , L0004956 , L0004957 ,
L0004958 ,
L0004959 , L0004960 , L0004961 , L0004962 , L0004963 , L0004964 , L0004965 ,
L0004966 ,
L0004967 , L0004968 , L0004969 , L0004970 , L0004971 , L0004972 , L0004973 ,
L0004974 ,
L0004975 , L0004976 , L0004977 , L0004978 , L0004979 , L0004980 , L0004981 ,
L0004982 ,
L0004983 , L0004984 , L0004985 , L0004986 , L0004987 , L0004988 , L0004989 ,
L0004990 ,
L0004991 , L0004992 , L0004993 , L0004994 , L0004995 , L0004996 , L0004997 ,
L0004998 ,
L0004999 , L0005000 , L0005001 , L0005002 , L0005003 , L0005004 , L0005005 ,
L0005006 ,
L0005007 , L0005008 , L0005009 , L0005010 , L0005011 , L0005012 , L0005013 ,
L0005014 ,
L0005015 , AREA1 ,
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM25\PM25.isc ***
07/08/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

2100516. L0004875 , L0004876 , L0004877 , L0004878 , L0004879 , L0004880 ,
L0004881 ,
L0004882 ,
L0004883 , L0004884 , L0004885 , L0004886 , L0004887 , L0004888 , L0004889 ,
L0004890 ,
L0004891 , L0004892 , L0004893 , L0004894 , L0004895 , L0004896 , L0004897 ,
L0004898 ,
L0004899 , L0004900 , L0004901 , L0004902 , L0004903 , L0004904 , L0004905 ,
L0004906 ,
L0004907 , L0004908 , L0004909 , L0004910 , L0004911 , L0004912 , L0004913 ,
L0004914 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                    CO
             L0004915    , L0004916    , L0004917    , L0004918    , L0004919    , L0004920    , L0004921    ,
L0004922    ,
             L0004923    , L0004924    , L0004925    , L0004926    , L0004927    , L0004928    , L0004929    ,
L0004930    ,
             L0004931    , L0004932    , L0004933    , L0004934    , L0004935    , L0004936    , L0004937    ,
L0004938    ,
             L0004939    , L0004940    , L0004941    , L0004942    , L0004943    , L0004944    , L0004945    ,
L0004946    ,
             L0004947    , L0004948    , L0004949    , STCK1       , STCK2       , STCK3       , STCK4       ,
L0004950    ,
             L0004951    , L0004952    , L0004953    , L0004954    , L0004955    , L0004956    , L0004957    ,
L0004958    ,
             L0004959    , L0004960    , L0004961    , L0004962    , L0004963    , L0004964    , L0004965    ,
L0004966    ,
             L0004967    , L0004968    , L0004969    , L0004970    , L0004971    , L0004972    , L0004973    ,
L0004974    ,
             L0004975    , L0004976    , L0004977    , L0004978    , L0004979    , L0004980    , L0004981    ,
L0004982    ,
             L0004983    , L0004984    , L0004985    , L0004986    , L0004987    , L0004988    , L0004989    ,
L0004990    ,
             L0004991    , L0004992    , L0004993    , L0004994    , L0004995    , L0004996    , L0004997    ,
L0004998    ,
             L0004999    , L0005000    , L0005001    , L0005002    , L0005003    , L0005004    , L0005005    ,
L0005006    ,
             L0005007    , L0005008    , L0005009    , L0005010    , L0005011    , L0005012    , L0005013    ,
L0005014    ,
             L0005015    , AREA1       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM25\PM25.isc              ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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   PAGE  10
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                        *** DISCRETE CARTESIAN RECEPTORS ***
                                      (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                (METERS)

     ( 478756.5, 3747340.4,     448.0,     448.0,       0.0);        ( 477850.2, 3745739.2,     448.0,     448.0,
     0.0);
     ( 477468.3, 3745732.7,     450.0,     450.0,       0.0);        ( 477064.8, 3746275.6,     452.0,     452.0,
     0.0);
     ( 476681.9, 3747195.9,     453.0,     453.0,       0.0);        ( 478756.5, 3747340.4,     448.0,     448.0,
     0.0);
     ( 477850.2, 3745739.2,     448.0,     448.0,       0.0);        ( 477468.3, 3745732.7,     450.0,     450.0,
     0.0);
     ( 477064.8, 3746275.6,     452.0,     452.0,       0.0);        ( 476681.9, 3747195.9,     453.0,     453.0,
     0.0);
     ( 478080.5, 3746730.6,     448.0,     448.0,       0.0);        ( 478061.2, 3746985.5,     448.0,     448.0,
     0.0);
     ( 478376.0, 3747009.6,     448.0,     448.0,       0.0);        ( 478314.2, 3746847.4,     447.2,     447.2,
     0.0);
     ( 478166.2, 3747511.6,     448.0,     448.0,       0.0);        ( 478593.6, 3747910.4,     449.0,     449.0,
```

CO
0.0);
(478741.6, 3747610.7, 448.0, 448.0, 0.0); (478124.1, 3747953.8, 450.0, 450.0,
0.0);
(478800.1, 3746766.9, 446.0, 446.0, 0.0); (476744.0, 3746652.5, 454.0, 454.0,
0.0);
(476399.7, 3746690.7, 457.0, 457.0, 0.0);

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM25\PM25.isc *** *** 07/08/16
*** AERMET - VERSION 14134 *** *** *** 11:48:27

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1

CO

```
 07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  133.    9.1  279.9
 5.5
 07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  192.    9.1  279.2
 5.5
 07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  160.    9.1  277.5
 5.5
 07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50   75.    9.1  277.5
 5.5
 07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00   1.00    0.50  282.    9.1  278.8
 5.5
 07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00   1.00    0.50   96.    9.1  277.5
 5.5
 07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  129.    9.1  278.1
 5.5
 07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00   0.54    0.50   99.    9.1  277.5
 5.5
 07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00   0.33    0.50  133.    9.1  278.1
 5.5
 07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00   0.26    0.50  174.    9.1  281.4
 5.5
 07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00   0.23    0.50   95.    9.1  284.9
 5.5
 07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00   0.22    1.30   94.    9.1  288.1
 5.5
 07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00   0.22    2.20   24.    9.1  291.4
 5.5
 07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00   0.23    3.60   13.    9.1  292.5
 5.5
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00   0.27    5.80  318.    9.1  292.0
 5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00   0.36    5.80  329.    9.1  291.4
 5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00   0.64    4.50  333.    9.1  289.9
 5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00   1.00    3.60  305.    9.1  288.8
 5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00   1.00    4.50  276.    9.1  287.5
 5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00   1.00    3.60  323.    9.1  287.5
 5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00   1.00    4.00  322.    9.1  288.1
 5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00   1.00    4.50   30.    9.1  288.1
 5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00   1.00    4.00  343.    9.1  287.0
 5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00   1.00    1.80  155.    9.1  283.8
 5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM25\PM25.isc                ***
    07/08/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   11:48:27

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  ALL
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
 ***
INCLUDING SOURCE(S): L0004875 , L0004876 , L0004877 , L0004878 , L0004879 ,
L0004880 , L0004881 , L0004882 , L0004883 , L0004884 , L0004885 , L0004886 , L0004887 ,
L0004888 , L0004889 , L0004890 , L0004891 , L0004892 , L0004893 , L0004894 , L0004895 ,
L0004896 , L0004897 , L0004898 , L0004899 , L0004900 , L0004901 , L0004902 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
478756.45	3747340.45	0.01577	(09113024)	477850.17	3745739.17	0.01137	(10073024)
477468.29	3745732.72	0.00748	(09011824)	477064.80	3746275.62	0.00797	(08062424)
476681.88	3747195.89	0.00717	(07122824)	478756.45	3747340.45	0.01577	(09113024)
477850.17	3745739.17	0.01137	(10073024)	477468.29	3745732.72	0.00748	(09011824)
477064.80	3746275.62	0.00797	(08062424)	476681.88	3747195.89	0.00717	(07122824)
478080.50	3746730.56	0.20035	(09050424)	478061.18	3746985.48	0.29185	(07102624)
478375.97	3747009.62	0.05126	(09082524)	478314.17	3746847.40	0.12707	(08020224)
478166.25	3747511.58	0.03387m	(10021924)	478593.58	3747910.42	0.01447m	(10021924)
478741.65	3747610.66	0.01492	(09120524)	478124.08	3747953.76	0.01737	(09021224)
478800.07	3746766.89	0.01818	(08020224)	476744.03	3746652.46	0.00882m	(08010224)
476399.72	3746690.72	0.00729m	(08010224)				

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM25\PM25.isc *** 07/08/16
*** AERMET - VERSION 14134 *** *** *** 11:48:27

PAGE 14
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	NETWORK OF TYPE	GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	0.29185	ON 07102624: AT (478061.18, 3746985.48, 448.00, 448.00, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CO
DP = DISCPOLR
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\LSTs\Operations\PM25\PM25.isc ***
07/08/16
*** AERMET - VERSION 14134 *** *** ***
11:48:27

PAGE 15
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 1895 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 90 Calm Hours Identified

A Total of 1805 Missing Hours Identified (4.12 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** AERMOD Finishes Successfully ***
****

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

How to use:
Column A requests a value. Enter that value in column B.
Be sure to enter all four requested values.
The result appears in cell B20.

CONVERSION OF MICROGRAMS PER CUBIC METER TO PPM

MICROGRAMS PER CUBIC METER CONCENTRATION	243.31846
MOLECULAR WEIGHT	46.0055
TEMPERATURE IN DEG CELSIUS	25
ATMOSPHERIC PRESSURE IN mmHg (use 760 if unsure)	760
CONCENTRATION IN PPM	0.129392925

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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CONVERSION OF MICROGRAMS PER CUBIC METER TO PPM

MICROGRAMS PER CUBIC METER CONCENTRATION	1283.72
MOLECULAR WEIGHT	28.01
TEMPERATURE IN DEG CELSIUS	25
ATMOSPHERIC PRESSURE IN mmHg (use 760 if unsure)	760
CONCENTRATION IN PPM	1.121249919

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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CONVERSION OF MICROGRAMS PER CUBIC METER TO PPM

MICROGRAMS PER CUBIC METER CONCENTRATION	900.335
MOLECULAR WEIGHT	28.01
TEMPERATURE IN DEG CELSIUS	25
ATMOSPHERIC PRESSURE IN mmHg (use 760 if unsure)	760
CONCENTRATION IN PPM	0.786386864

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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CONVERSION OF MICROGRAMS PER CUBIC METER TO PPM

MICROGRAMS PER CUBIC METER CONCENTRATION	269.00465
MOLECULAR WEIGHT	46.0055
TEMPERATURE IN DEG CELSIUS	25
ATMOSPHERIC PRESSURE IN mmHg (use 760 if unsure)	760
CONCENTRATION IN PPM	0.143052436

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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CONVERSION OF MICROGRAMS PER CUBIC METER TO PPM

MICROGRAMS PER CUBIC METER CONCENTRATION	1086.95467
MOLECULAR WEIGHT	28.01
TEMPERATURE IN DEG CELSIUS	25
ATMOSPHERIC PRESSURE IN mmHg (use 760 if unsure)	760
CONCENTRATION IN PPM	0.949387589

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CONVERSION OF MICROGRAMS PER CUBIC METER TO PPM

MICROGRAMS PER CUBIC METER CONCENTRATION	953.38304
MOLECULAR WEIGHT	28.01
TEMPERATURE IN DEG CELSIUS	25
ATMOSPHERIC PRESSURE IN mmHg (use 760 if unsure)	760
CONCENTRATION IN PPM	0.832721042

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The result appears in cell B20.

CONVERSION OF MICROGRAMS PER CUBIC METER TO PPM

MICROGRAMS PER CUBIC METER CONCENTRATION	159.6629
MOLECULAR WEIGHT	46.0055
TEMPERATURE IN DEG CELSIUS	25
ATMOSPHERIC PRESSURE IN mmHg (use 760 if unsure)	760
CONCENTRATION IN PPM	0.084906216

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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CONVERSION OF MICROGRAMS PER CUBIC METER TO PPM

MICROGRAMS PER CUBIC METER CONCENTRATION	1043.8681
MOLECULAR WEIGHT	28.01
TEMPERATURE IN DEG CELSIUS	25
ATMOSPHERIC PRESSURE IN mmHg (use 760 if unsure)	760
CONCENTRATION IN PPM	0.911754138

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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CONVERSION OF MICROGRAMS PER CUBIC METER TO PPM

MICROGRAMS PER CUBIC METER CONCENTRATION	813.7491
MOLECULAR WEIGHT	28.01
TEMPERATURE IN DEG CELSIUS	25
ATMOSPHERIC PRESSURE IN mmHg (use 760 if unsure)	760
CONCENTRATION IN PPM	0.710759443

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CONVERSION OF MICROGRAMS PER CUBIC METER TO PPM

MICROGRAMS PER CUBIC METER CONCENTRATION	166.29871
MOLECULAR WEIGHT	46.0055
TEMPERATURE IN DEG CELSIUS	25
ATMOSPHERIC PRESSURE IN mmHg (use 760 if unsure)	760
CONCENTRATION IN PPM	0.088435035

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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CONVERSION OF MICROGRAMS PER CUBIC METER TO PPM

MICROGRAMS PER CUBIC METER CONCENTRATION	754.70634
MOLECULAR WEIGHT	28.01
TEMPERATURE IN DEG CELSIUS	25
ATMOSPHERIC PRESSURE IN mmHg (use 760 if unsure)	760
CONCENTRATION IN PPM	0.659189249

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CONVERSION OF MICROGRAMS PER CUBIC METER TO PPM

MICROGRAMS PER CUBIC METER CONCENTRATION	661.96341
MOLECULAR WEIGHT	28.01
TEMPERATURE IN DEG CELSIUS	25
ATMOSPHERIC PRESSURE IN mmHg (use 760 if unsure)	760
CONCENTRATION IN PPM	0.578184043

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How to use:
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The result appears in cell B20.

CONVERSION OF MICROGRAMS PER CUBIC METER TO PPM

MICROGRAMS PER CUBIC METER CONCENTRATION	15.694
MOLECULAR WEIGHT	46.0055
TEMPERATURE IN DEG CELSIUS	25
ATMOSPHERIC PRESSURE IN mmHg (use 760 if unsure)	760
CONCENTRATION IN PPM	0.008345822

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CONVERSION OF MICROGRAMS PER CUBIC METER TO PPM

MICROGRAMS PER CUBIC METER CONCENTRATION	9.09324
MOLECULAR WEIGHT	28.01
TEMPERATURE IN DEG CELSIUS	25
ATMOSPHERIC PRESSURE IN mmHg (use 760 if unsure)	760
CONCENTRATION IN PPM	0.007942382

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CONVERSION OF MICROGRAMS PER CUBIC METER TO PPM

MICROGRAMS PER CUBIC METER CONCENTRATION	7.29139
MOLECULAR WEIGHT	28.01
TEMPERATURE IN DEG CELSIUS	25
ATMOSPHERIC PRESSURE IN mmHg (use 760 if unsure)	760
CONCENTRATION IN PPM	0.006368578

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

AVERAGE EMISSION FACTOR (CO)
SCAQMD 2018

Speed	LHD1	MHD	HHD
0	74.975	19.77929	4.483185173
5	3.61581	3.091988	5.079846722

Speed	Weighted Average Emissions
0	22.71383
5	4.40626

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Emission Rates - CO

Truck Emission Rates							
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Daily Truck Emissions [c] (pounds/day)	Modeled Emission Rates (g/second)
On-Site Idling	176			22.7138	999.41	2.20	1.157E-02
On-Site Travel	352	83.14	4.4063		366.32	0.81	4.240E-03

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

AVERAGE EMISSION FACTOR (NO2)
SCAQMD 2018

Speed	LHD1	MHD	HHD
0	39.0706	63.43374	35.38339139
5	1.75897	10.70418	19.1331748

Speed	Weighted Average Emissions
0	41.14937
5	13.81708

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Emission Rates - NO2

Truck Emission Rates							
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Daily Truck Emissions [c] (pounds/day)	Modeled Emission Rates (g/second)
On-Site Idling	176			41.1494	1810.57	3.99	2.096E-02
On-Site Travel	352	83.14	13.8171		1148.70	2.53	1.330E-02

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

AVERAGE EMISSION FACTOR (PM10)
SCAQMD 2018

Speed	LHD1	MHD	HHD
0	0.41732	0.269028	0.045430192
5	0.05775	0.206219	0.05902619

Speed	Weighted Average Emissions
0	0.16685
5	0.08474

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Emission Rates - PM10

Truck Emission Rates							
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Daily Truck Emissions [c] (pounds/day)	Modeled Emission Rates (g/second)
On-Site Idling	176			0.1668	7.34	0.02	8.497E-05
On-Site Travel	352	83.14	0.0847		7.04	0.02	8.154E-05

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

AVERAGE EMISSION FACTOR (PM2.5)
SCAQMD 2018

Speed	LHD1	MHD	HHD
0	0.39927	0.25739	0.043464902
5	0.05507	0.197277	0.056471644

Speed	Weighted Average Emissions
0	0.15963
5	0.08103

Emission Rates - PM2.5

Truck Emission Rates							
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Daily Truck Emissions [c] (pounds/day)	Modeled Emission Rates (g/second)
On-Site Idling	176			0.1596	7.02	0.02	8.129E-05
On-Site Travel	352	83.14	0.0810		6.74	0.01	7.797E-05

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

AVERAGE EMISSION FACTOR (CO)
SCAQMD 2018

Speed	Weighted Average Emissions
0	7.24602
5	1.44920

Emission Rates - CO

Passenger Car Emission Rates							
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Daily Truck Emissions [c] (pounds/day)	Modeled Emission Rates (g/second)
On-Site Idling	290			7.2460	525.34	1.16	6.080E-03
On-Site Travel	580	101.16	1.4492		146.61	0.32	1.697E-03

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

AVERAGE EMISSION FACTOR (NO2)
SCAQMD 2018

Speed	Weighted Average Emissions
0	0.61735
5	0.12347

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Emission Rates - NO2

Passenger Car Emission Rates							
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Daily Truck Emissions [c] (pounds/day)	Modeled Emission Rates (g/second)
On-Site Idling	290			0.6174	44.76	0.10	5.180E-04
On-Site Travel	580	101.16	0.1235		12.49	0.03	1.446E-04

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

AVERAGE EMISSION FACTOR (PM10)
SCAQMD 2018

Speed	Weighted Average Emissions
0	0.05771
5	0.01154

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Emission Rates - PM10

Passenger Car Emission Rates							
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Daily Truck Emissions [c] (pounds/day)	Modeled Emission Rates (g/second)
On-Site Idling	290			0.0577	4.18	0.01	4.843E-05
On-Site Travel	580	101.16	0.0115		1.17	0.00	1.351E-05

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

AVERAGE EMISSION FACTOR (PM2.5)
SCAQMD 2018

Speed	Weighted Average Emissions
0	0.05315
5	0.01063

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Emission Rates - PM2.5

Passenger Car Emission Rates							
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Daily Truck Emissions [c] (pounds/day)	Modeled Emission Rates (g/second)
On-Site Idling	290			0.0532	3.85	0.01	4.460E-05
On-Site Travel	580	101.16	0.0106		1.08	0.002	1.245E-05

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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Indian Street Commerce Center

MOBILE SOURCE DIESEL HEALTH RISK ASSESSMENT

CITY OF MORENO VALLEY

PREPARED BY:

Haseeb Qureshi
hqureshi@urbanxroads.com
(949) 336-5987

JULY 7, 2016

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

LIST OF ABBREVIATED TERMS

(1)	Reference
µg	Microgram
AERMOD	Atmospheric Dispersion Modeling System
APS	Auxiliary Power System
AQMD	Air Quality Management District
ARB	Air Resources Board
CEQA	California Environmental Quality Act
CPF	Cancer Potency Factor
DPM	Diesel Particulate Matter
EMFAC	Emission Factor Model
EPA	Environmental Protection Agency
HHD	Heavy Heavy-Duty
HI	Hazard Index
HRA	Health Risk Assessment
LHD	Light Heavy-Duty
MATES	Multiple Air Toxics Exposure Study
MEIR	Maximally Exposed Individual Receptor
MEISC	Maximally Exposed Individual School Child
MEIW	Maximally Exposed Individual Worker
MHD	Medium Heavy-Duty
NAD	North American Datum
OEHHA	Office of Environmental Health Hazard
PCE	Passenger Car Equivalent
PM10	Particulate Matter 10 microns in diameter or less
Project	Indian Street Commerce Center
REL	Reference Exposure Level
RM	Recommended Measures
SCAQMD	South Coast Air Quality Management District
SRA	Source Receptor Area
TAC	Toxic Air Contaminant
URF	Unit Risk Factor
UTM	Universal Transverse Mercator
VMT	Vehicle Miles Traveled

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

EXECUTIVE SUMMARY

This report evaluated the potential mobile source health risk impacts to sensitive receptors (residents and schools) and adjacent workers associated with the development of the proposed Project, more specifically, health risk impacts as a result of exposure to diesel particulate matter (DPM) as a result of heavy-duty diesel trucks accessing the site. This section summarizes the findings of this report.

The results of the health risk assessment of lifetime cancer risk from Project-generated DPM emissions are provided in Table ES-1 below for the Project.

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project DPM source emissions is an existing residential home situated approximately 3,171 feet southwest of the Project site on Nevada Avenue. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project DPM source emissions is estimated at 0.21 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0001, which would not exceed the applicable threshold of 1.0.

Worker Exposure Scenario:

The worker receptor land use with the greatest potential exposure to Project DPM source emissions is located immediately adjacent to the south of the Project at the iHerb Inc. Warehouse Distribution Center located at 17825 Indian Street in the City of Moreno Valley. At the maximally exposed individual worker (MEIW), the maximum incremental cancer risk impact at this location is 0.03 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.001, which would not exceed the applicable threshold of 1.0.

School Child Exposure Scenario:

The school site land use with the greatest potential exposure to Project DPM source emissions is located at the El Potrero Preschool located at 16820 Via Pamplona in the City of Moreno Valley and is over 1.5 miles (8,000 feet) northeast of the Project site. At the maximally exposed individual school child (MEISC), the maximum incremental cancer risk impact at this location is 0.001 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.00001, which would not exceed the applicable threshold of 1.0.

Cumulative Exposure:

The results of the analysis also indicate that the project will not result in a significant cumulative health risk. Section 2.7 contains a detailed cumulative analysis for the Project.

TABLE ES-1: SUMMARY OF RISK ATTRIBUTABLE TO THE PROJECT

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
70 Year Exposure (2018 to 2087)	Maximum Exposed Sensitive Receptor	0.21	10	NO
40 Year Exposure (2018 to 2057)	Maximum Exposed Worker Receptor	0.26	10	NO
9 Year Exposure (2018 to 2026)	Maximum Exposed School Child	0.001	10	NO

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1 INTRODUCTION

The purpose of this Health Risk Assessment (HRA) is to evaluate Project-related impacts to sensitive receptors (residential, schools) and adjacent workers as a result of heavy-duty diesel trucks accessing the site.

The South Coast Air Quality Management District (SCAQMD) typically issues a comment letter on the Notice of Preparation of a CEQA Document. Per the SCAQMD's typical comment letter, if a proposed Project is expected to generate/attract diesel trucks, which emit diesel particulate matter (DPM), preparation of a HRA is necessary. This document serves to meet the SCAQMD's request for preparation of an HRA. The mobile source HRA has been prepared in accordance with the document Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (1). Cancer risk is expressed in terms of expected incremental incidence per million population. The SCAQMD has established an incidence rate of 10 persons per million as the maximum acceptable incremental cancer risk due to DPM exposure. This threshold serves to determine whether or not a given project has a potentially significant development-specific and cumulative impact.

The AQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (2). In this report the AQMD clearly states (Page D-3):

"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."

The SCAQMD has also established non-carcinogenic risk parameters for use in HRAs. Non-carcinogenic risks are quantified by calculating a "hazard index," expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). An REL is a concentration at or below which health effects are not likely to occur. A hazard index less of than one (1.0) means that adverse health effects are not expected. Within this analysis, non-carcinogenic exposures of less than 1.0 are considered less-than-significant.

1.1 SITE LOCATION

The proposed Indian Street Commerce Center site is located at 17845 Indian Street in the City of Moreno Valley, as shown on Exhibit 1-A. Interstate 215 (I-215) Freeway is located approximately one mile west of the Project site. The March Air Reserve Base/Inland Port Airport (MARB/IPA) is located approximately one-half mile west of the Project site.

1.2 STUDY AREA

The Project site is currently vacant and is designated by the City of Moreno Valley General Plan Land Use Map, Figure 2-2, as Business Park/Light Industrial land use. (3) The properties adjacent to the Project site on all sides are also designated as Business Park/Light Industrial land use. Existing Open Space land use is located west of the Project site at the southern boundary of the MARB/IPA. The existing land uses are shown on Exhibit 1-B.

1.3 PROJECT DESCRIPTION

The Project is proposed to consist of approximately 446,350 square feet, of which 357,080 square feet would be allocated to high-cube warehouse/distribution center use and 89,270 square feet to manufacturing use within a single building. Supporting office uses would be also incorporated in the building design. The Project's site plan is illustrated on Exhibit 1-C. The Project is anticipated to have an Opening Year of 2018[1].

As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) will be powered by non-diesel fueled engines and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

The City of Moreno Valley's General Plan Land Use designation for the Project site is Business Park/Light Industrial (BP/LI), which allows for "manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities (3)." The land uses and development proposed by the Project are permitted/conditionally permitted under the Project site's current BP/LI Land Use designations. The Project is located within Specific Plan 208 (SP 208), Moreno Valley Industrial Area Plan (MVIAP) (formerly the Oleander Specific Plan. SP 208 land uses of the Project site are zoned Industrial. The development concepts and uses proposed by the Project are permitted or conditionally permitted under the site's current SP 208 Industrial zoning designation. As such, the Project's land uses and development are permitted/conditionally permitted under the City General Plan Land Use designations and under

[1] Notwithstanding, the Traffic Impact Analysis (TIA) prepared for the Project evaluates an Opening Year of 2020 since the City of Moreno Valley traffic study guidelines require the Opening Year to be a minimum of 5 years from baseline (2015) conditions. Using a 2018 Opening Year for purposes of the AQIA herein represents a conservative estimate of emissions compared to if a 2020 opening year consistent with the traffic study were utilized.

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the SP 208's zoning designation. Therefore, no changes are proposed to these existing designations.

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EXHIBIT 1-A: LOCATION MAP

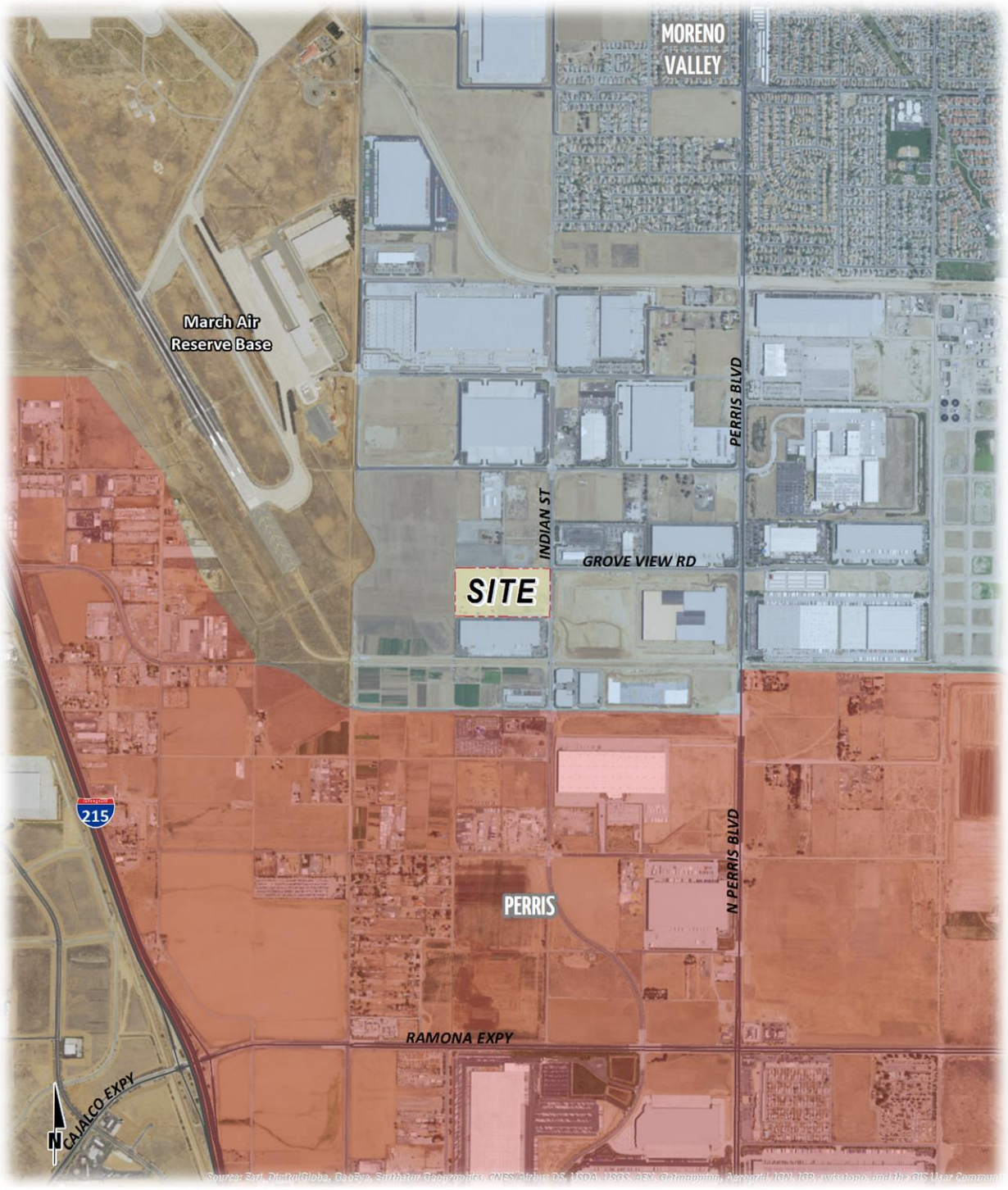

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EXHIBIT 1-B: EXISTING LAND USES



Source: Google Earth, Applied Planning.

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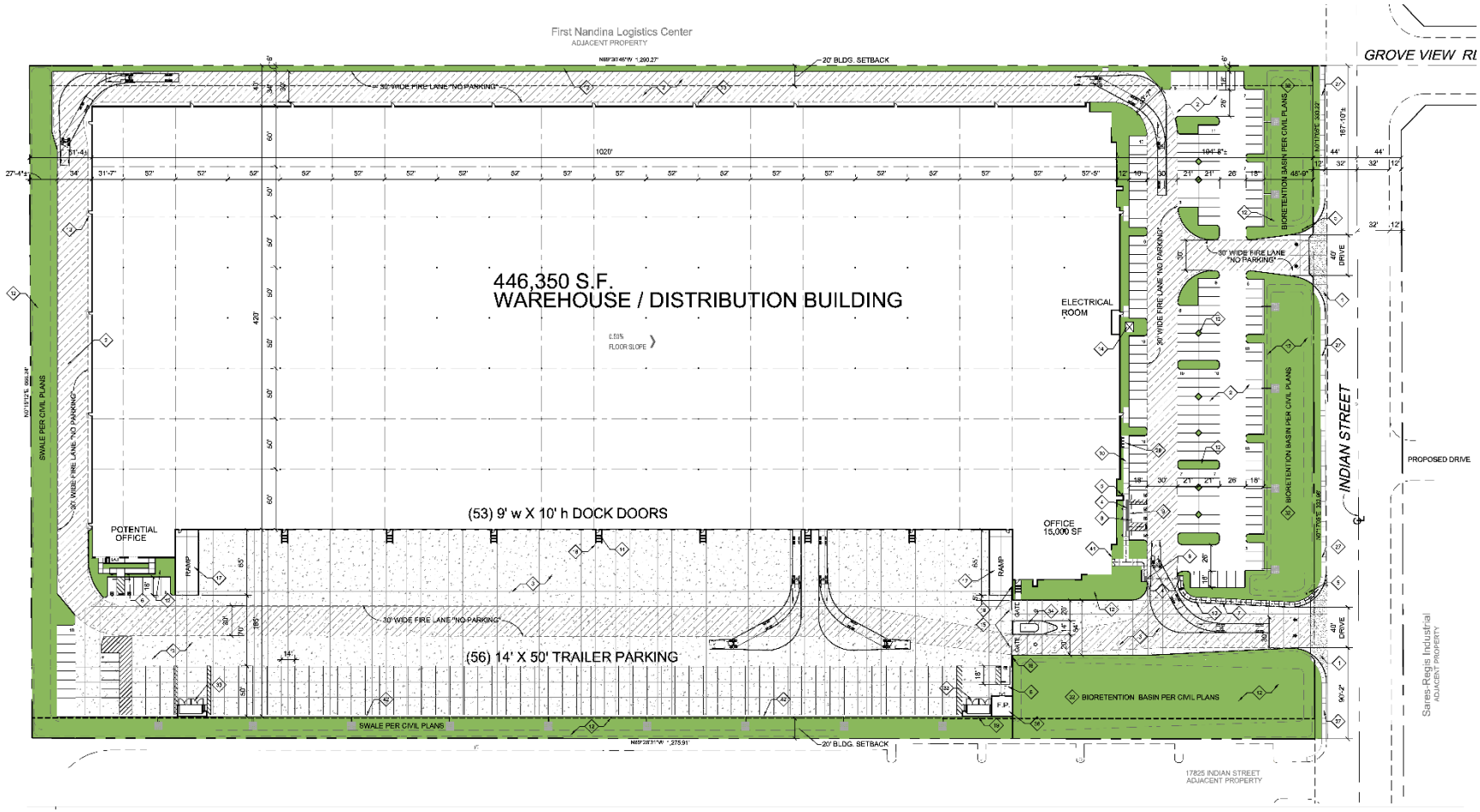
EXHIBIT 1-C: SITE PLAN



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1.4 PROJECT DESIGN FEATURES

Energy-saving and sustainable design features and operational programs would be incorporated into all facilities developed pursuant to the Indian Street Commerce Center. The Project in total would provide sustainable design features necessary to achieve a "Certified" rating under the United States Green Building Council's Leadership in Energy & Environmental Design (LEED) programs. The Project also incorporates and expresses the following design features and attributes promoting energy efficiency and sustainability. Because these features/attributes are integral to the Project, and/or are regulatory requirements, they are not considered to be mitigation measures.

- The Project design concept allow for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provide that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City.
- All on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines (e.g., electric or natural gas).
- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:
    - Sidewalks along the Project site's Indian Street frontage would be constructed as part of the Project, and would connect to existing and planned sidewalks to the north and south of the Project site. Facilitating pedestrian access encourages people to walk instead of drive. The Project would not impose barriers to pedestrian access and interconnectivity.
    - Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery truck trips.
- To reduce water demands and associated energy use, development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy)[2]. Development proposals within the Specific Plan Area would also be required to implement the following:
    - Landscaping palette emphasizing drought tolerant plants consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;
    - Use of water-efficient irrigation techniques consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;
    - U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads.

2 Reduction of 20% indoor water usage is consistent with the current CalGreen Code performance standards for residential and non-residential land uses. Per CalGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

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- The Project in total would surpass by a minimum of 5%, incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards).

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2 BACKGROUND

2.1 REGULATORY SETTING

CARB estimates that the average Californian is exposed to 1.2-1.8 µg/m^3 of DPM annually, this exposure results in an average cancer risk of 360-540 in one million for the average Californian exposed to DPM (4).

As noted above, this HRA is based on SCAQMD guidelines to produce conservative estimates of risk posed by exposure to DPM. The conservative nature of this analysis is due primarily to the following factors:

The CARB-adopted diesel exhaust Unit Risk Factor (URF) of 300 in one million per µg/m3 is based upon the upper 95 percentile of estimated risk for each of the epidemiological studies utilized to develop the URF. Therefore the risk factor is already representative of the conservative risk posed by DPM.

The risk estimates assume sensitive receptors will be subject to DPM for 24 hours a day, 350 days a year. As a conservative measure, the SCAQMD does not recognize indoor adjustments for residents. However, the typical person spends the majority of their time indoors versus remaining outdoors for 24 hours a day, 350 days a year.[3]

The exposure to DPM is assumed to be constant for the given period analyzed (i.e., 70 years). It should be noted however that emissions from DPM are expected to substantially decrease in the future with the implementation of standard regulatory requirements and technological advancement to reduce DPM.

The emissions derived assume that every truck accessing the project site will idle for 15 minutes under the unmitigated scenario, this is an overestimation of actual idling times and thus conservative.[4]

2.2 EMISSIONS ESTIMATION

2.2.1 ON-SITE AND OFF-SITE TRUCK ACTIVITY

Vehicle DPM emissions were estimated using emission factors for particulate matter less than 10µm in diameter (PM_{10}) generated with the 2014 version of the Emission Factor model (EMFAC) developed by CARB. EMFAC 2014 is a mathematical model that was developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in

[3] In May, 1991 the California Air Resources Board (CARB) Research Division in association with the University of California, Berkeley published research findings entitled: *Activity Patterns of California Residents*. The findings of that study indicate that on average, adults and adolescents in California spent almost 15 hours per day inside their homes, and six hours in other indoor locations, for a total of 21 hours (87% of the day). About 2 hours per day were spent in transit, and just over 1 hour per day was spent in outdoor locations.

[4] Although the Project is required to comply with CARB's idling limit of 5 minutes, staff at SCAQMD recommends that the on-site idling emissions should be estimated for 15 minutes of truck idling (personal communication, phone call, with James Koizumi, May 6, 2009), which would take into account on-site idling which occurs while the trucks are waiting to pull up to the truck bays, idling at the bays, idling at check-in and check-out, etc.

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California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (5). The most recent version of this model, EMFAC 2014, incorporates regional motor vehicle data, information and estimates regarding the distribution of vehicle miles traveled (VMT) by speed, and number of starts per day.

Further, the EMFAC 2014 user's guide states: "EMFAC2014 is the latest emissions inventory model that calculates emissions inventories for motor vehicles operating on roads in California. EMFAC2014 represents the next step forward in the ongoing improvement process for EMFAC, and reflects CARB's current understanding of how vehicles travel and how much they pollute. The EMFAC2014 model is needed to support CARB's regulatory and air quality planning efforts and to meet the Federal Highway Administration's transportation planning requirements."

Several distinct emission processes are included in EMFAC 2014. Emission factors calculated using EMFAC 2014 are expressed in units of grams per vehicle miles traveled (g/VMT) or grams per idle-hour (g/idle-hr), depending on the emission process. The emission processes and corresponding emission factor units associated with diesel particulate exhaust for this Project are presented in the proceeding discussion below.

For this Project, annual average PM_{10} emission factors were generated by running EMFAC 2014 in EMFAC Mode for vehicles within the Riverside County portion of the SCAB. The EMFAC Mode generates emission factors in terms of grams of pollutant emitted per vehicle activity and can calculate a matrix of emission factors at specific values of temperature, relative humidity, and vehicle speed. The model was run for speeds traveled in the vicinity of the Project. The vehicle travel speeds for each segment modeled are summarized below. These are average speeds and represent conservative assumptions because lower speeds result in higher emission rates.

- Idling – on-site loading/unloading at loading docks and truck court
- 5 miles per hour – on-site vehicle movement including driving and maneuvering
- 25 miles per hour – off-site vehicle movement including driving and maneuvering.

The average PM10 emission factors for each type of vehicle were calculated based on the annual average emission factors from different calendar years for various exposure periods associated with assumptions for evaluating exposure to different receptor populations (e.g., sensitive, offsite worker and resident, respectively):

1) 70-year exposure: 2018 through 2087 (Residential Exposure Scenario)
2) 40-year exposure: 2018 through 2057 (Worker Exposure Scenario)
3) 9-yr exposure: 2018 through 2026 (School Child Exposure Scenario)

Calculated emission factors for each of these scenarios are shown in Table 2-1. The emission factors for model years beyond 2050 were assumed to be the same as emission factors in 2050 due to the fact that EMFAC 2014 only contains emission factors for the model year from 2000 through 2050. This is an extremely conservative measure (and likely unrealistic) as it assumes no fleet turnover or cleaner technology with lower emissions would be incorporated after 2050.

The vehicle DPM exhaust emissions were calculated for running exhaust emissions. The running exhaust emissions were calculated by applying the running exhaust PM10 emission factor (g/VMT) from EMFAC over the total distance traveled. The following equation was used to estimate off-site emissions for each of the different vehicle classes comprising the mobile sources (5):

$Emissions_{speedA}$ (g/s) = $EF_{RunExhaust}$ (g/VMT) * Distance (VMT/trip) * Number of Trips (trips/day) / seconds per day

Where:

$Emissions_{speedA}$ (g/s): Vehicle emissions at a given speed A;

$EF_{RunExhaust}$ (g/VMT): EMFAC running exhaust PM_{10} emission factor at speed A;

Distance (VMT/trip): Total distance traveled per trip.

Similar to off-site traffic, on-site vehicle running emissions were calculated by applying the running exhaust PM_{10} emission factor (g/VMT) from EMFAC and the total vehicle trip number over the length of the driving path using the same formula presented above for on-site emissions. In addition, on-site vehicle idling exhaust emissions were calculated by applying the idle exhaust PM_{10} emission factor (g/idle-hr) from EMFAC and the total truck trip over the total idle time (15 minutes). The following equation was used to estimate the on-site vehicle idling emissions for each of the different vehicle classes (5):

$Emissions_{idle}$ (g/s) = EF_{idle} (g/hr) * Number of Trips (trips/day) * Idling Time (min/trip) * 60 minutes per hour / seconds per day

Where:

$Emissions_{idle}$ (g/s): Vehicle emissions during idling;

EF_{idle} (g/s): EMFAC idle exhaust PM_{10} emission factor.

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TABLE 2-1: WEIGHTED AVERAGE DPM EMISSIONS FACTORS

2018-2087 – 70 Year Residential Exposure Scenario	
Speed	Weighted Average
0 (idling)	0.10580 (g/idle-hr)
5	0.01650 (g/s)
25	0.00873 (g/s)
2018-2057 – 40 Year Worker Exposure Scenario	
Speed	Weighted Average
0 (idling)	0.12412 (g/idle-hr)
5	0.02120 (g/s)
25	0.01056 (g/s)
2018-2026 – 9 Year School Child Exposure Scenario	
Speed	Weighted Average
0 (idling)	0.19918 (g/idle-hr)
5	0.04903 (g/s)
25	0.02195 (g/s)

Each roadway was modeled as a line source (made up of multiple adjacent volume sources). Due to the large number of volume sources modeled for this analysis, the corresponding coordinates of each volume source have not been included in this report, but are included in Appendix 5.1. The DPM emission rate for each volume source was calculated by multiplying the emission factor (based on the average travel speed along the roadway) by the number of trips and the distance traveled along each roadway segment and dividing the result by the number of volume sources along that roadway, as illustrated in Appendix 5.3. The modeled emission sources are illustrated on Exhibit 2-A. The modeled truck travel routes included in the HRA are based on the truck trip distributions (inbound and outbound) available from the Project's Traffic Impact Analysis (TIA) (6).

On-site truck idling was estimated to occur as trucks enter and travel through the facility. Although the Project is required to comply with CARB's idling limit of 5 minutes, staff at SCAQMD recommends that the on-site idling emissions should be estimated for 15 minutes of truck idling (7), which would take into account on-site idling which occurs while the trucks are waiting to pull up to the truck bays, idling at the bays, idling at check-in and check-out, etc. As such, this analysis estimated truck idling at 15 minutes, consistent with SCAQMD's recommendation.

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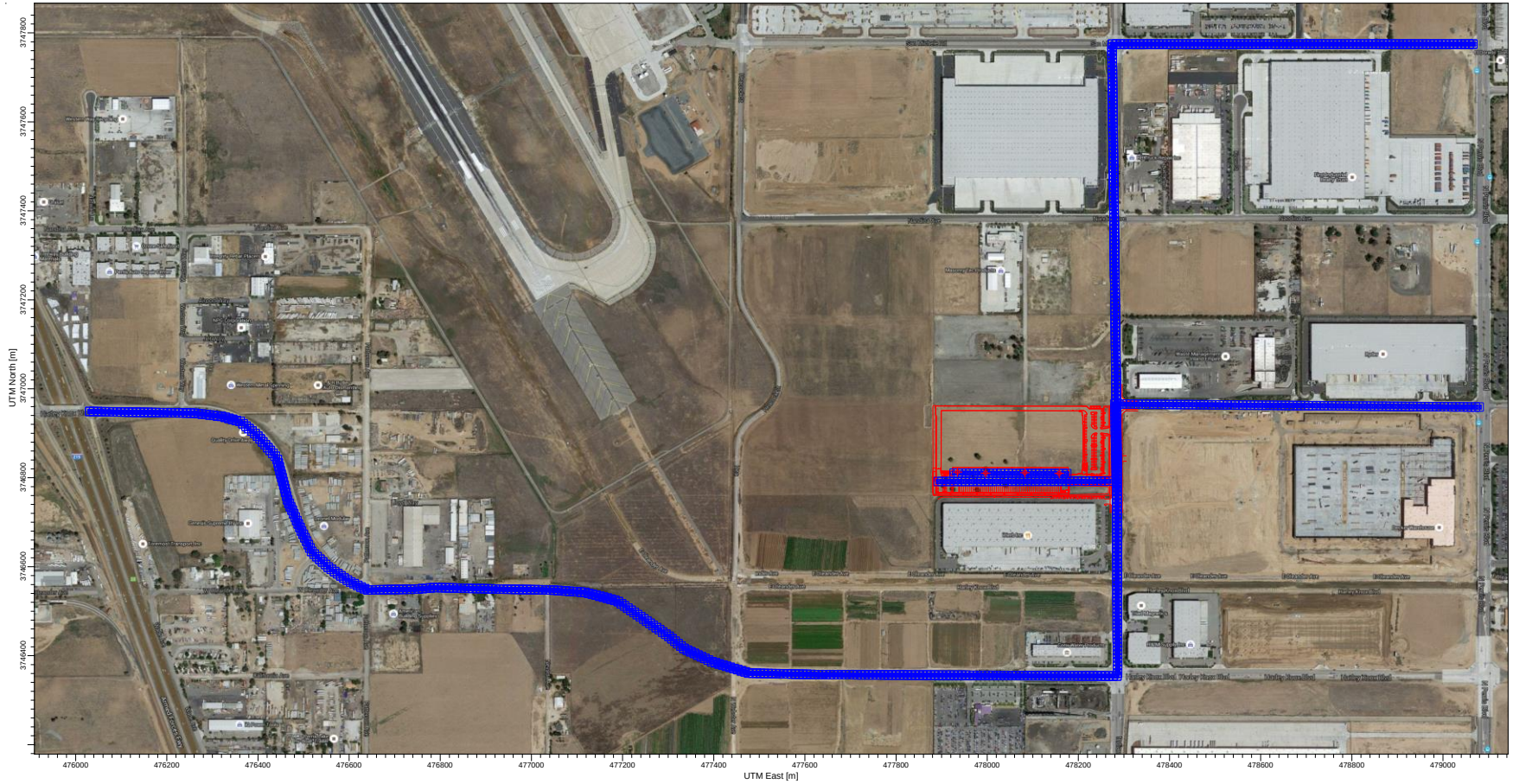
EXHIBIT 2-A: MODELED EMISSION SOURCES



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Trip characteristics available from the report, Indian Street Commerce Center Traffic Impact Analysis (Urban Crossroads) 2016 were utilized in this analysis (8). It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. Notwithstanding, for purposes of the air quality study, the PCE trips were not used. Rather, to more accurately estimate and model vehicular-source emissions, the actual number of vehicles, by vehicle classification (e.g., passenger cars (including light trucks), heavy trucks) were used in the analysis.

For purposes of this analysis, the following ITE land use codes and vehicle mixes have been utilized:

- ITE land use code 140 (Manufacturing) has been used to derive site specific trip generation estimates. Manufacturing facilities (ITE Land Use Code 140) are areas where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research and associated functions. The ITE *Trip Generation* manual includes very limited data regarding the types of vehicles that are generated for manufacturing uses (passenger cars and various sizes of trucks). Total vehicle mix percentages were obtained from the City of Fontana's Truck Trip Generation Study for Heavy Industrial (Land Use Code 110). (9) for the manufacturing use proposed as part of the Project.
- ITE land use code 152 (High-Cube Warehousing) has been used to derive site specific trip generation. High-cube warehouse/distribution centers (ITE Land Use Code 152) are a unique land use type within the larger, more generalized industrial land use category. ITE's most recent edition of the Trip Generation manual (ITE 9th Edition), published in 2012, defines "high-cube warehouses" as "…used for storage of materials, goods and merchandise prior to their distribution to retail outlets, distribution centers or other warehouses. These facilities are typically characterized by ceiling heights of at least 24 feet with small employment counts due to a high level of mechanization." The average square footage for the sites surveyed for high-cube warehouse/distribution center (Land Use 152) use is above 500,000 square feet. The number of sites observed in the compilation of this data ranges from 57-70 sites of which more than 20 sites exceed 1,000,000 square feet in gross floor area. The weighted average daily trip generation rate for high-cube warehouse (Land Use 152) use is 1.68 trips per thousand square feet (TSF). Total vehicle mix percentages were also obtained from the ITE Trip Generation manual in conjunction with the South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type (10). The SCAQMD is currently recommending the use of the ITE Trip Generation manual in conjunction with their truck mix by axle-type to better quantify trip rates associated with local warehouse and distribution projects, as truck emission represent more than 90 percent of air quality impacts from these projects. This recommended procedure has been utilized for the purposes of this analysis in effort

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to be consistent with other technical studies being prepared for the Project. The percentage of trucks has been determined from the table shown on page 267 of the ITE *Trip Generation* manual. As shown on page 267, the truck trip generation rate for weekday daily traffic is 0.64 or 38.1% of the total traffic. Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks. For the purposes of this analysis, the percentage of trucks, by axle type, were obtained from the SCAQMD interim recommended truck mix. The SCAQMD has recently performed surveys of existing facilities and compiled the data to provide interim guidance on the mix of heavy trucks for these types of high-cube warehousing/distribution facilities. Based on this interim guidance from the SCAQMD, the following truck fleet mix was utilized for the purposes of estimating the truck trip generation for the site: 22.03% of the total trucks as 2-axle trucks, 17.76% of the total trucks as 3-axle trucks, and 60.31% of the total trucks as 4+-axle trucks.

2.2.2 TRANSPORT REFRIGERATION UNITS (TRUS)

In order to account for the possibility of refrigerated uses being accommodated in the Project's buildings, it is assumed that 15% of all trucks will also have transport refrigeration units (TRUs). Therefore, for modeling purposes 34 of the 227 total daily trucks (one-way) are assumed to be trucks with TRUs. In addition to on-site truck idling, the analysis assumes that each TRU accessing the site will also idle for a worst-case 15 minutes, even though the CARB's anti-idling rules mandate a 5-minute idling time. Based on CARBs *Staff Report: Initial Statement of Reasons for Proposed Rulemaking 2011 Amendments for TRUs* (August 2011), an average TRU with 34 horsepower and 0.53 load factor was utilized[5].

TRU emission rates were calculated based on the CARB Off-Road Airborne Toxic Control Measure rule compliance schedule requirements as set forth in Section 2477 *Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and Facilities where TRUs Operate*[6]. Pursuant to the rule, all TRU engines ≥ 25 horsepower currently in operation are required to meet a minimum standard of 0.22 g/bhp-hr for PM and by 2020, all in-use TRU engines are required to meet a minimum standard of 0.02 g/bhp-hr. For analytical purposes, TRU emission rates were weighted based on years 2016-2086 – Residential, 2016-2055 – Off-Site Worker, and 2016-2024 – School Child.

On-site idling TRUs were modeled in AERMOD as point sources adjacent to loading dock areas consistent with methodology provided by the San Joaquin Valley Air Pollution Control District (SJVAPCD) (11). Use of SJVAPCD guidance for specific TRU modeling is appropriate since SCAQMD does not provide such guidance and since SJVAPCD is also an expert air quality agency, like SCAQMD. As such, point sources were modeled with a release height of 3.96 meters, a gas exit temperature of 501 K, stack inside diameter of 0.044, and a gas exit velocity of 49.983 m/s.

[5] http://www.arb.ca.gov/regact/2011/tru2011/truisor.pdf

[6] http://www.arb.ca.gov/diesel/tru/documents/fro_10-16-12.pdf

The TRU emissions have been analyzed in the AERMOD model both as point sources located at the loading areas on the project site and as part of the roadway emissions. The TRU roadway emission rates were calculated by multiplying the hourly emission rates by the modeled speed for each roadway in order to convert the grams per hour emission rates to the grams per mile emission rates, where the emissions were combined with the truck travel modeling.

2.2.3 ON-SITE EQUIPMENT EMISSIONS

It is common for an industrial warehouse project to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks have a horsepower (hp) range of approximately 175 hp to 200 hp (12). Based on the latest available information from SCAQMD (13); high-cube warehouse projects typically have 3.6 yard trucks per million square feet of building space. For this particular Project, on-site modeled operational equipment includes two (2) yard tractors operating at 4 hours a day (14) for 365 days of the year[7]. In addition to the use of yard trucks operating at the Project site, forklifts are a common piece of equipment used in warehouse operations. The Project includes two (2) 89 hp yard forklifts operating at 4 hours a day for 365 days of the year interior to the building. However for purposes of the HRA forklifts are not included in the health risk calculations since there is no diesel exhaust associated with the forklifts as they are assumed to be non-diesel consistent with the Project's design features.

As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) will be powered by non-diesel fueled engines and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

[7] 4 hour daily on-site operation of the yard trucks is based on the Southern California International Gateway Recirculated Draft EIR. Table C1.2-BL-17 *Activity Data for Existing Business CHE – 2010 Baseline* indicates that the average annual hours of operation for all diesel Container Handling Equipment, Forklifts, and Yard Tractors totaled 72,187 annual operating hours. The total number of pieces of equipment equals 52. As such, 72,187/52 = 1,388 annual hours per piece of equipment. 1,388 annual hours per piece of equipment/365 days = an average of 3.80 hours per day per piece of equipment. As a conservative measure this is rounded up to 4 hours for analytical purposes.

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2.3 EXPOSURE QUANTIFICATION

The analysis herein has been conducted in accordance with the guidelines in the Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (1). SCAQMD recommends using the Environmental Protection Agency's (U.S. EPA's) AERMOD model. For purposes of this analysis, the model was used to calculate annual average particulate concentrations associated with site operations.

The model offers additional flexibility by allowing the user to assign an initial release height and vertical dispersion parameters for mobile sources representative of a roadway. For this HRA, the roadways were modeled as adjacent volume sources. According to the AERMOD user's guide, the initial horizontal standard deviation (σy) of individual volume sources should be estimated as the distance between adjacent volume sources divided by 2.15. In a similar manner, the AERMOD user guide specifies that the source initial vertical standard deviation (σz) for a surface-based source should be estimated as the height of the source divided by a factor of 2.15 (15). The release height of 4 meters was assumed for the diesel trucks, consistent with the methodology used in the Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach prepared by CARB in April 2006, and the vertical (sigma z) dispersion parameter of 1.86 meters was utilized in the AERMOD model (16).

SCAQMD required model parameters are presented in Table 2-2 (15). The model requires additional input parameters including emission data and local meteorology. Meteorological data from the SCAQMD's Perris monitoring station (SRA 24) located approximately 5 miles south of the Project site was used to represent local weather conditions and prevailing winds (17).

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TABLE 2-2: AERMOD MODEL PARAMETERS

Dispersion Coefficient (Urban/Rural)	Urban
Terrain (Flat/Elevated)	Elevated (Regulatory Default)
Averaging Time	1 year (5-year Meteorological Data Set)
Receptor Height	0 meters (Regulatory Default)

Universal Transverse Mercator (UTM) coordinates for North American Datum (NAD) 27 were used to locate the project boundaries, each volume source location, and receptor locations in the project vicinity. The AERMOD dispersion model summary output files for the proposed facility are presented in Appendix 5.1.

Modeled sensitive receptors were placed at discrete residential and non-residential locations for the applicable residential and non-residential scenarios. Additionally, based on recommendations from SCAQMD staff, a receptor grid with 100 meter spacing was placed at residential, worker, and school locations in order to ensure that the maximum impacts are properly analyzed.

Discrete variants for daily breathing rates, exposure frequency, and exposure duration were obtained from relevant distribution profiles presented in the OEHHA guidance document entitled Air Toxic Hot Spots Program Risk Assessment Guidelines, Part IV: Technical Support Document for Exposure Assessment and Stochastic Analysis (18) and guidance from SCAQMD. Table 2-3 summarizes the Exposure Parameters for Residents, Offsite Worker, and School Children. Appendix "5.2" includes the detailed emissions and risk calculation outputs. (19)

TABLE 2-3: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK

Exposure Parameter	Units	Residential	Worker	School Child [a]
Exposure Frequency	days/year	350	245	180
Exposure Duration	years	70	40	9
Inhalation Rate [b]	L/kg-day	302	149	581
Exposure Duration	Years	70	40	9
Exposure Time	hours/day	24	12	10

[a] To represent the unique characteristics of the school-based population, the assessment employed the U.S. Environmental Protection Agency's guidance to develop viable dose estimates based on reasonable maximum exposures (RME). RME's are defined as the "highest exposure that is reasonably expected to occur" for a given receptor population. As a result, lifetime risk values for the student population were adjusted to account for an exposure duration of 180 days per year for nine (9) years. The 9 year exposure duration is also consistent with OEHHA Recommendations and consistent with the exposure duration utilized in school-based risk assessments for various schools within the Los Angeles County Unified School District (LAUSD) that have been accepted by the SCAQMD.

[b] The residential breathing rate of 302 L/kg-day represents the 80th percentile breathing rate per ARB and consistent with SCAQMD Risk Assessment Procedures for Rules 1401 and 212, the worker breathing rate of 149 L/kg-day is also consistent with SCAQMD Risk Assessment Procedures for Rules 1401 and 212, the school child breathing rate of 581 L/kg-day represents the high end 95th percentile breathing rate.

2.4 CARCINOGENIC CHEMICAL RISK

The SCAQMD CEQA Air Quality Handbook (1993) states that emissions of toxic air contaminants (TACs) are considered significant if a HRA shows an increased risk of greater than 10 in one million. Based on guidance from the SCAQMD in the document Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis ((1), for purposes of this analysis, 10 in one million is used as the cancer risk threshold for the proposed Project.

Excess cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens over a specified exposure duration. The estimated risk is expressed as a unitless probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). A risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time. This risk would be an excess cancer risk that is in addition to any cancer risk borne by a person not exposed to these air toxics.

Guidance from CARB and the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA) recommends a refinement to the standard point estimate approach when alternate human body weights and breathing rates are utilized to assess risk for susceptible subpopulations such as children. For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose. Once determined, contaminant dose is multiplied by the cancer potency factor (CPF) in units of inverse dose expressed in milligrams per kilogram per day (mg/kg/day)-1 to derive the cancer risk estimate. Therefore, to assess exposures, the following dose algorithm was utilized.

$$DOSEair = (Cair \times [BR/BW] \times A \times EF) \times (1 \times 10^{-6})$$

Where:

DOSEair = chronic daily intake (mg/kg/day)

Cair = concentration of contaminant in air (ug/m3)

[BR/BW] = daily breathing rate normalized to body weight (L/kg BW-day)

A = inhalation absorption factor

EF = exposure frequency (days/365 days)

BW = body weight (kg)

1 x 10 -6 = conversion factors (ug to mg, L to m3)

$$RISKair = DOSEair \times CPF \times ED/AT$$

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Where:

DOSEair	=	chronic daily intake (mg/kg/day)
CPF	=	cancer potency factor
ED	=	number of years within particular age group
AT	=	averaging time

2.5 NON-CARCINOGENIC EXPOSURES

An evaluation of the potential noncarcinogenic effects of chronic exposures was also conducted. Adverse health effects are evaluated by comparing a compound's annual concentration with its toxicity factor or Reference Exposure Level (REL). The REL for diesel particulates was obtained from OEHHA for this analysis. The chronic reference exposure level (REL) for DPM was established by OEHHA as 5 µg/m^3 (OEHHA Toxicity Criteria Database, http://www.oehha.org/risk/chemicaldb/index.asp).

The non-cancer hazard index was calculated (consistent with SCAQMD methodology) as follows:

The relationship for the non-cancer health effects of DPM is given by the following equation:

$HI_{DPM} = C_{DPM}/REL_{DPM}$

Where:

HI_{DPM}	=	Hazard Index; an expression of the potential for non-cancer health effects.
C_{DPM}	=	Annual average DPM concentration (µg/m^3).
REL_{DPM}	=	Reference exposure level (REL) for DPM; the DPM concentration at which no adverse health effects are anticipated.

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2.6 POTENTIAL PROJECT-RELATED DPM SOURCE CANCER AND NON-CANCER RISKS[8]

Project-related DPM-source cancer and non-cancer risks for residential, worker, and school child exposure scenarios for the Project are considered herein and are summarized as follows.

Modeled sensitive receptors were placed at discrete residential and non-residential locations for the applicable residential and non-residential scenarios as illustrated on Exhibits 2-B, 2-C, and 2-D.

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project DPM source emissions is an existing residential home situated approximately 3,171 feet southwest of the Project site on Nevada Avenue. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project DPM source emissions is estimated at 0.21 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0001, which would not exceed the applicable threshold of 1.0.

Worker Exposure Scenario:

The worker receptor land use with the greatest potential exposure to Project DPM source emissions is located immediately adjacent to the south of the Project at the iHerb Inc. Warehouse Distribution Center located at 17825 Indian Street in the City of Moreno Valley. At the maximally exposed individual worker (MEIW), the maximum incremental cancer risk impact at this location is 0.03 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.001, which would not exceed the applicable threshold of 1.0.

School Child Exposure Scenario:

The school site land use with the greatest potential exposure to Project DPM source emissions is located at the El Potrero Preschool located at 16820 Via Pamplona in the City of Moreno Valley and is over 1.5 miles (8,000 feet) northeast of the Project site. At the maximally exposed individual school child (MEISC), the maximum incremental cancer risk impact at this location is 0.001 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.00001, which would not exceed the applicable threshold of 1.0.

8 SCAQMD guidance does not require assessment of the potential health risk to on-site workers. Excerpts from the document OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines—The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2003), also indicate that it is not necessary to examine the health effects to on-site workers unless required by RCRA (Resource Conservation and Recovery Act) / CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) or the worker resides on-site.

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EXHIBIT 2-B: NEAREST MODELED RESIDENTIAL RECEPTORS



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EXHIBIT 2-C: NEAREST MODELED WORKER RECEPTORS



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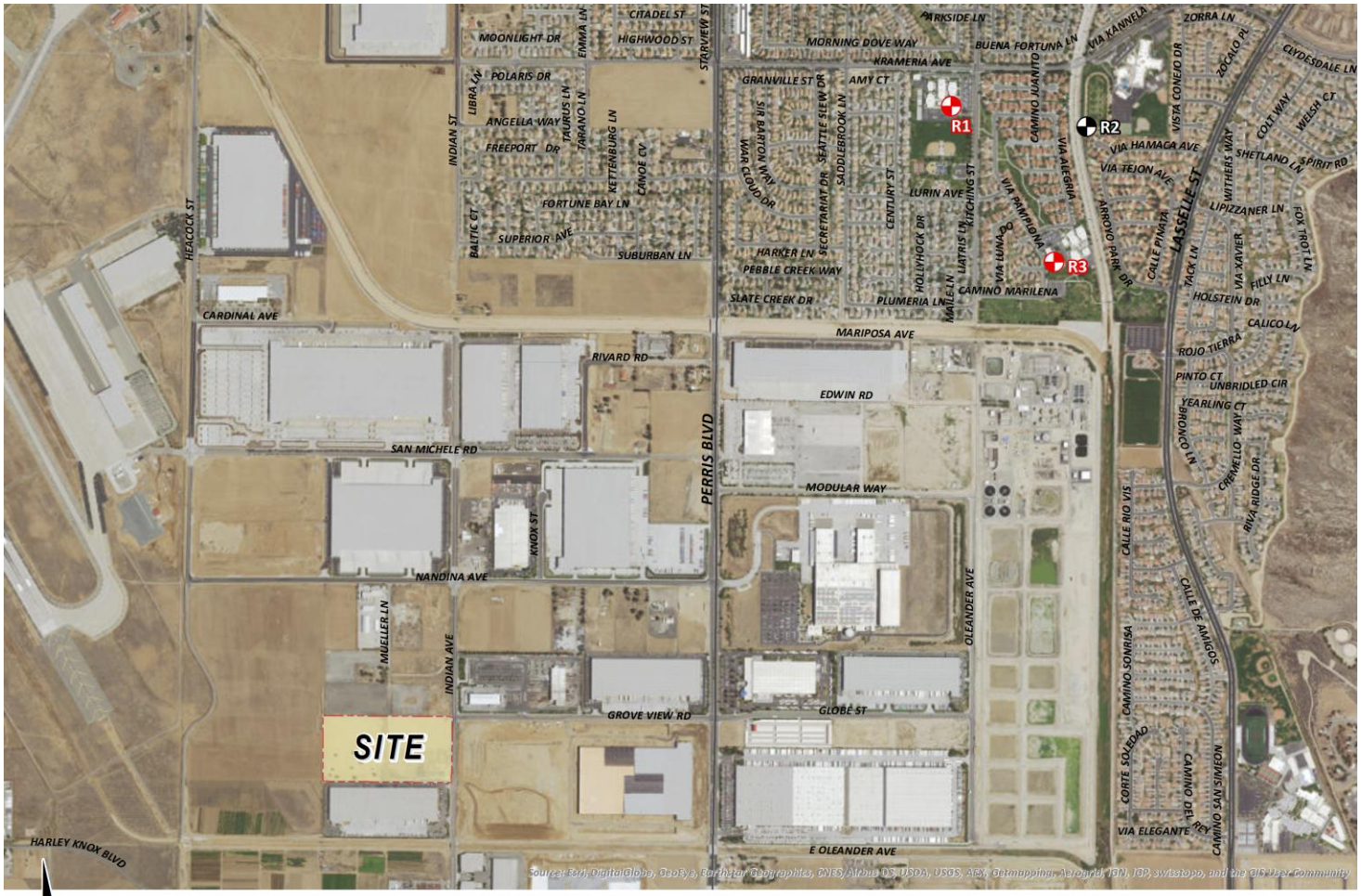
EXHIBIT 2-D: NEAREST MODELED SCHOOL CHILD RECEPTORS



2.7 CUMULATIVE TOXIC AIR CONTAMINANTS (TAC) EMISSIONS IMPACTS

2.7.1 EXISTING CONDITIONS FOR TOXIC EMISSIONS

There are no state or federal ambient air quality standards applicable to TAC emissions. Preparing a cumulative assessment for TACs is complicated by the fact that site-specific impacts can be far different from average impacts over a larger geographic area. Impacts from TAC emissions are highest closest to sources of TACs, but the sources are often spread over a large area. For example, emissions from diesel engines, the largest source of risk from TACs, are operated on roads, businesses, and construction sites throughout the air basin. Locations where large numbers of TAC sources are concentrated such as freeways, rail yards, and ports may pose a higher level of risk to sensitive receptors near these facilities. Examination of the risk from TACs at national, state, regional, and local levels is useful for providing context, but site-specific evaluation is ultimately necessary to determine existing conditions for development projects.

2.7.2 AMBIENT TAC IMPACTS PRESUMED CUMULATIVELY SIGNIFICANT

The SCAQMD has conducted an in-depth analysis of the toxic air contaminants and their resulting health risks for all of Southern California. This study, the *Multiple Air Toxics Exposure Study in the South Coast Air Basin, MATES IV,"* shows that cancer risk has decreased more than 55% between MATES III (2005) and MATES IV (2012).

MATES-IV is the most comprehensive dataset documenting the ambient air toxic levels and health risks associated with the South Coast Air Basin emissions. Therefore, MATES-IV study represents the baseline health risk for a cumulative analysis. MATES-IV calculated cancer risks based on monitoring data collected at ten fixed sites within the South Coast Air Basin (SCAB). None of the fixed monitoring sites are within the local area of the Project site. However, MATES-IV has extrapolated the excess cancer risk levels throughout the basin by modeling the specific grids. MATES-IV modeling predicted an excess cancer risk of 522.63 in one million for the Project area. DPM is included in this cancer risk along with all other TAC sources. DPM accounts for 68% of the total risk shown in MATES-IV.

The SCAQMD has established a significance threshold for incremental project-level TAC impacts. Specifically, if a given project would generate TACs resulting in or causing an increase in cancer risks of 10 or more incidents per million population, that project's incremental cancer risk would be considered significant. This same significance threshold (10 in one million) is applied by SCAQMD in determining whether a given project's incremental contribution to ambient TAC-source cancer risks is cumulatively considerable. The SCAQMD has not however established a significance threshold for ambient cumulative TAC impacts affecting the Basin. Likewise, the City of Moreno Valley (the Lead Agency) has no adopted cumulative TAC impacts significance threshold.

Absent an established threshold for cumulative TAC impacts, the following discussion assesses whether, in the light of other available existing information, the ambient cumulative TAC-source

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impacts affecting the Basin and the area encompassing the Project site could be characterized as significant.

As noted previously, *MATES-IV* estimates that in the localized area encompassing the Project site, the risk is estimated at 522.63 incidents per million population. This existing cumulative TAC-source cancer risk level far exceeds the 10 in one million cancer risk at which project-level TAC-source cancer risks would be determined significant employing SCAQMD thresholds.

Comparing the ambient cumulative TAC-source cancer risk (522.63 per million locally) to the SCAQMD's established threshold for project-level TAC-source cancer risks (10 in one million), the ambient cumulative TAC-source cancer risk is approximately 52.3 times greater than the incremental risk at which project-level TAC-source cancer risks would be considered significant.

Although there is not yet an established significance threshold for ambient cumulative TAC impacts, given the magnitude by which the ambient cumulative condition exceeds SCAQMD's established project-level significance threshold (ambient cumulative TAC conditions are 52.3 times greater than the project-level threshold), the ambient cumulative condition would likely exceed whatever significance threshold may be established for cumulative impacts affecting the Basin. On this basis, and absent a prevailing threshold adopted by the Lead or Responsible Agency, ambient cumulative TAC impacts are presumed to be significant.

2.7.3 JUSTIFICATION OF THE GEOGRAPHIC SCOPE OF THE ANALYSIS

Proximity to sources of toxics is critical to determining the impact. In traffic-related studies, the additional non-cancer health risk attributable to proximity was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70-percent drop-off in particulate pollution levels at 500 feet. Based on ARB and South Coast District emissions and modeling analyses, an 80-percent drop-off in pollutant concentrations is estimated at approximately 1,000 feet from a distribution center (20).

The 1,000-foot evaluation distance is supported by research-based findings concerning TAC emission dispersion rates from roadways and large sources showing that emissions diminish substantially between 500 and 1,000 feet from emission sources.

For assessing the cumulative impacts of a new source of TAC emissions associated with a project in combination with existing sources and probable future sources, a project radius is necessary. Assessment of impacts from existing sources within 1,000 feet of the new source in combination with risks and hazards from the new source is recommended. Then, once the location of the maximally impacted receptor is identified for the project, cumulative impacts from other sources within the radius of the project (i.e., not the receptor) are assessed at that location. Assessments should sum individual hazards or risks to find the cumulative impact at the location of the maximally impacted receptor from the new source.

Lastly, the Waters Bill (AB 3205) (H&SC Section, 42301.6 through 42301.9) (21) addresses sources of hazardous air pollutants near schools and further evidences the propriety of considering hazardous emissions sources within a defined 1,000 foot radius . That is, pursuant to the Waters

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Bill, prior to approving an application for a permit to construct or modify a source which emits hazardous air emissions, which source is located within 1,000 feet from the outer boundary of a school site, the air pollution control officer shall prepare a public notice in which the proposed project or modification for which the application for a permit is made is fully described.

For purposes of this assessment, a one-quarter mile radius or 1,320 feet geographic scope is utilized for determining potential cumulative impacts. This radius is more robust than, and provides a more health protective scenario for evaluation than the 1,000 feet buffer identified above.

2.7.4 Related Projects Contribution to Cumulative TAC Impacts

In addition to the MATES-IV cumulative TAC-source cancer risk noted above, other new or proposed potential TAC-generating projects (related projects) in the Study Area could contribute to cumulative TAC impacts. These related projects, due to their recent and/or tentative nature, are not reflected in the cumulative TAC impacts identified in the MATES-IV study.

In consultation with the Lead Agency, related TAC-generating projects located within a one-quarter mile radius of the Project were identified and are reflected in this cumulative TAC analysis. The related projects listed below were selected based on their propensity to generate TACs that would contribute to, or interact with, TACs generated by the Project. Exhibit 2-E illustrates cumulative projects in the study area and a quarter-mile buffer

Of the cumulative projects identified in the Project's traffic study, the following cumulative projects have the potential to emit TACs and are located within the quarter-mile buffer:

- MV-1: PA 06-0152 & PA 06-0153 (First Park Nandina I & II) (483,767 square feet of high-cube warehouse) [9]
- MV-5: First Inland Logistics Center (400,130 square feet high-cube warehouse) [10]
- MV-11: PA 09-0004 (Vogel) & Sares Regis (2,400,000 square feet high-cube warehouse) [11]
- MV-13: First Nandina Logistics Center (1,450,000 square feet high-cube warehouse) [12]
- MV-14: First Park Nandina III & Moreno Valley Commerce Park (1,046,282 square feet of high-cube warehouse) [13]

9 There is no readily available information for the First Park Nandina I & II project, however given the size of the Project risks can be estimated to be approximately 3.6 in one million.

10 The Health Risk Assessment for First Inland Logistics II, dated November 14, 2012 identifies a maximum risk to be 4.64 in one million.

11 There is no readily available information for the Vogel/Sares Regus project, however given the size of the Project risks can be estimated to be approximately 27.83 in one million.

12 The Health Risk Assessment for First Nandina Logistics Center, dated April 21, 2014 identifies a maximum risk to be 6.12 in one million.

13 There is no readily available information for the First Nandina III project, however given the size of the Project risks can be estimated to be approximately 16.81 in one million.

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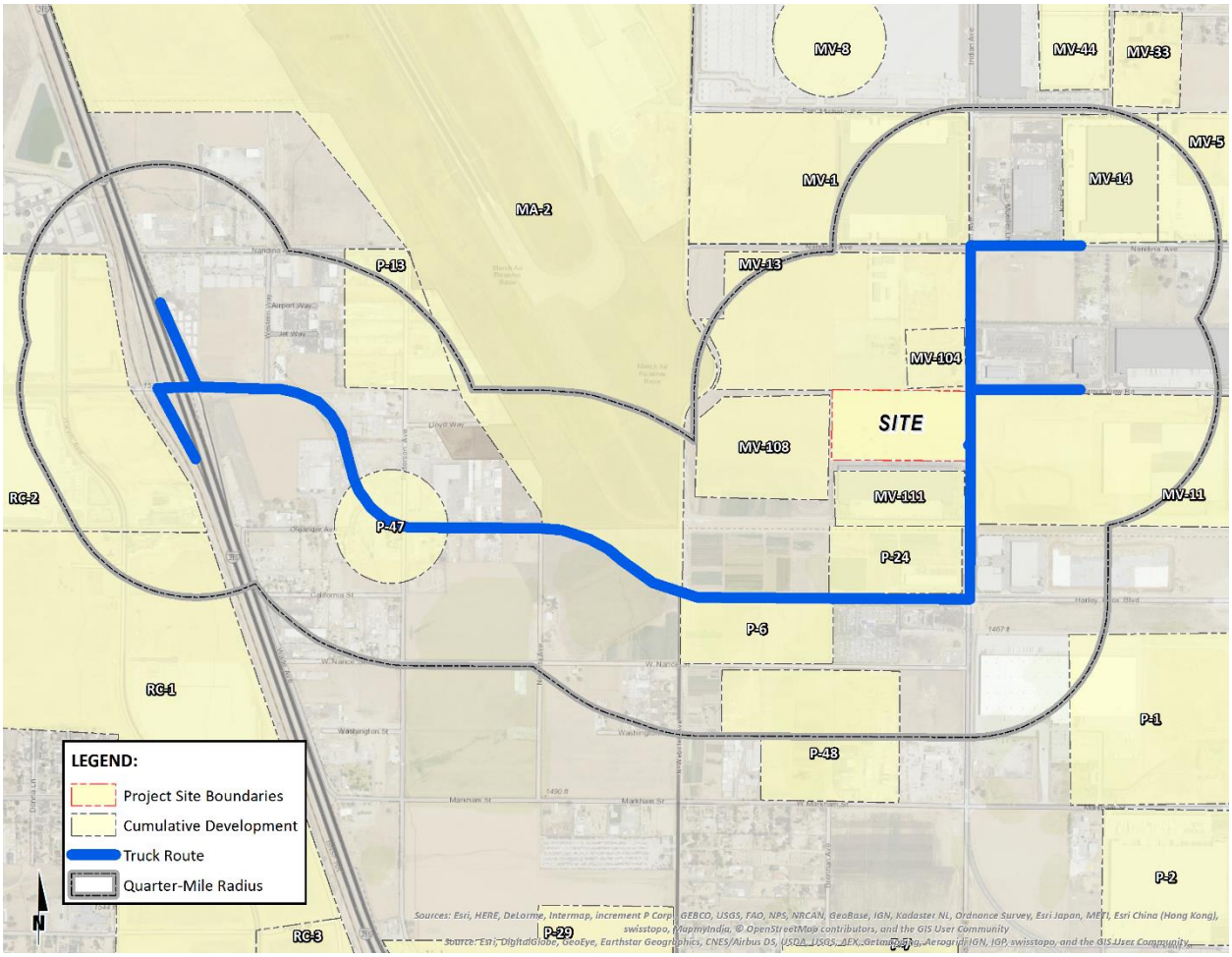
EXHIBIT 2-E: CUMULATIVE DEVELOPMENT WITHIN ONE-QUARTER MILE OF THE PROJECT AND PRIMARY TRUCK ROUTE



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- MV-104:IDS/Real Estate Group- Nandina Distribution Center (697,000 square feet high-cube warehouse) [14]
- MV-111: Moval Assemblage (459,945 square feet high-cube warehouse) [15]
- RC-1: SP 341; PP 21552 (Majestic Freeway Business Center) (6,100,715 square feet high-cube warehouse) [16]
- RC-2: PP 20699 (Oleander Business Park) 1,206,710 square feet warehouse) [17]
- P-1: 05-0113 (IDI) (1,750,000 square feet high-cube warehouse) [18]
- P-6: P 07-09-0018 (170,000 square feet warehouse) [19]
- P-13: P 05-0411 (Concrete Batch Plant) 2,000 square feet manufacturing) [20]
- P-24: P 04-0343 (41,650 square feet warehouse) [21]
- P-47: PM 34199 & DPR 05-0387 & DPR 05-0452 & TPM 34697 & DPR 06-0396 (103,754 square feet general light industrial use and 191,023 square feet warehouse) [22]
- P-48: Integra Pacific Industrial Facility (880,000 square feet high-cube warehouse) [23]

The primary TAC-source emission associated with the cumulative projects would be DPM associated with any truck trips accessing the cumulative projects and traveling on roadways in the study area. As such, the estimated health risks from these cumulative projects has been totaled. The total maximum estimated cancer risk associated with the cumulative projects identified above is estimated to be 316.26 in one million. This estimate is based on the proposed square footage of all industrial-related land uses and Urban Crossroads' professional expertise in the preparation of health risk assessments. It is important to note that the risk value of 316.26 from related projects is likely a very conservative overstatement of the actual risk that is likely to occur at any given location. As a conservative measure to overstate rather than understate the potential risk

14 There is no readily available information for the IDS project, however given the size of the Project risks can be estimated to be approximately 8.08 in one million.

15 There is no readily available information for the Moval Assemblage project, however given the size of the Project risks can be estimated to be approximately 3.5 in one million.

16 There is no readily available information for the Majestic Freeway Business Center project, however given the size of the Project risks can be estimated to be approximately 30 in one million.

17 The Draft Environmental Impact Report for the PP 20699 (Oleander Business Park), dated December 26, 2007 (SCH 2005091095) identifies a maximum risk to be 180 in one million.

18 There is no readily available information for the IDI project, however given the size of the Project risks can be estimated to be approximately 20 in one million.

19 There is no readily available information for the 170,000 sf Warehouse, however given the size of the Project risks can be estimated to be approximately 1.97 in one million.

20 There is no readily available information for the concrete batch plant, however given the size of the Project risks can be estimated to be approximately 5.0 in one million.

21 There is no readily available information for the 41,650 sf Warehouse, however given the size of the Project risks can be estimated to be approximately 0.50 in one million.

22 There is no readily available information for the 191,023 sf of Industrial, however given the size of the Project risks can be estimated to be approximately 2.21 in one million.

23 The Final Environmental Impact Report for the Integra Perris project, dated December 2014 (SCH No. 2014051065) identifies a maximum risk to be 6.0 in one million.

impacts this analysis assumes that the maximum impact from each related project overlaps and would occur at the same location in the Project vicinity.

2.7.5 PROJECT MAXIMUM CONTRIBUTION TO CUMULATIVE TAC IMPACTS

Project-source TACs would incrementally increase the background cancer risk by a maximum of 0.26 incidents per million population. The applicable SCAQMD significance threshold for Project-level TAC-source cancer risk impacts is 10 incidents per million population. Similarly, SCAQMD significance thresholds state that Project contributions to cumulative TAC-source cancer risks would be cumulatively considerable if greater than 10 incidents per million population would occur. The 0.26 incidents per million population increment resulting from the Project is therefore not significant, nor cumulatively considerable.

2.7.6 CUMULATIVE IMPACTS

As noted above at Section 2.7.5, the Project's maximum contribution to cumulative TAC Impacts would not be cumulatively considerable. For informational and disclosure purposes, cumulative TAC impacts are further defined for each potential exposure scenario (residential, worker and school child) and are summarized below and on Table 2-6.

Residential Exposure Scenario:

The greatest cumulative with Project cancer risk is 839.89 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 0.21 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore considered to have a less than cumulatively considerable impact. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's Residential Exposure impacts would not be cumulatively considerable.

Worker Exposure Scenario:

The greatest cumulative with Project cancer risk is 839.15 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 0.26 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore considered to have a less than cumulatively considerable impact. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's Worker Exposure impacts would not be cumulatively considerable.

School Child Exposure Scenario:

The greatest cumulative with Project cancer risk is 838.891 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 0.001 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore less than cumulatively considerable. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's School Child Exposure impacts would not be cumulatively considerable.

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2.7.6 SUMMARY AND CONCLUSIONS

To provide context for, and quantify cumulative TAC effects within the Study Area, the Project TAC-source cancer risk, and the TAC-source cancer risks from the related projects identified herein, were added to the total background risk derived by the MATES IV study, yielding a maximum potential cumulative TAC-source risk affecting the Study Area. As indicated at Table 2-4, the maximum potential cumulative cancer risk within the Study Area is estimated at 839.36 in one million.

The MATES-IV background and related projects represents approximately 99 percent of the total cumulative impact identified at Table 2-4; and due to its magnitude when compared to project-level TAC impact significance thresholds, is presumed to be cumulatively significant. The Project would incrementally contribute to this presumably significant cumulative impact. However, the Project's maximum incremental contribution of 0.26 incidents per million population does not exceed the established SCAQMD threshold (10 incidents per million population) at which project-level TAC contributions would be determined cumulatively considerable. On this basis, the Project TAC emissions impacts are not considered cumulatively considerable.

TABLE 2-4: STUDY AREA CUMULATIVE CANCER RISK[24]

	Cancer Risk as Maximum Sensitive Receptor (risk in one million)			
	Background*	Related Projects TACs	Project TACs	Maximum Cumulative Risk
Maximum Impact to All Receptors Without Project	522.63	316.26		838.89
Maximum Impact to Nearest Residential With Project	522.63	316.26	0.21	839.10
Maximum Impact to Nearest Worker With Project	522.63	316.26	0.26	839.15
Maximum Impact to Nearest School With Project	522.63	316.26	0.001	838.891
	*Source: **MATES IV Carcinogenic Risk Interactive Map** (SCAQMD 2015).			

24 Although cumulative impacts typically represent a General Plan Buildout Scenario, there is no such data available for what General Plan Buildout DPM emissions impacts would be. The background risk, however, would likely overstate, rather than understate future DPM impacts and is assumed to be inclusive of future growth. It should be noted that due to improved DPM emissions control technologies and increasingly stringent DPM emissions regulations, the cancer risk incidence in the seven (7) years between the Mates III and Mates IV studies declined by approximately 50% even as population and business growth occurred throughout the region. Similar future declines in area-wide DPM source emissions are anticipated pursuant to enactment of further emissions regulations, including but not limited to anticipated greenhouse gas (GHG) reduction and control measures to be implemented by the state (see also: emissions regulatory measures discussed within the air quality and greenhouse gas analysis.

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

4 CERTIFICATION

The contents of this health risk assessment represent an accurate depiction of the impacts to sensitive receptors associated with the proposed Indian Street Commerce Center Project. The information contained in this health risk assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 660-1994 ext. 217.

Haseeb Qureshi
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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
Air Dispersion Modeling – Lakes Environmental • June, 2006

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 5.1:

AERMOD MODEL INPUT/OUTPUT

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 6/30/2016
** File: C:\Lakes\AERMOD View\ISCC\Residential\Residential.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
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   AVERTIME ANNUAL
   URBANOPT 2100516
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL Residential.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC 95% Inbound from I-215
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003315
** Vertical Dimension = 4.00
** SZINIT = 1.86
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

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				Residential
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Residential

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LOCATION	L0003402	VOLUME	476905.021	3746550.186	452.26
LOCATION	L0003403	VOLUME	476896.524	3746550.398	452.41
LOCATION	L0003404	VOLUME	476888.027	3746550.611	452.55
LOCATION	L0003405	VOLUME	476879.529	3746550.823	452.68
LOCATION	L0003406	VOLUME	476871.032	3746551.036	452.82
LOCATION	L0003407	VOLUME	476862.535	3746551.248	452.96
LOCATION	L0003408	VOLUME	476854.037	3746551.461	453.00
LOCATION	L0003409	VOLUME	476845.540	3746551.673	453.00
LOCATION	L0003410	VOLUME	476837.043	3746551.885	453.00
LOCATION	L0003411	VOLUME	476828.545	3746552.098	453.00
LOCATION	L0003412	VOLUME	476820.048	3746552.310	453.00
LOCATION	L0003413	VOLUME	476811.551	3746552.523	453.00
LOCATION	L0003414	VOLUME	476803.053	3746552.735	453.00
LOCATION	L0003415	VOLUME	476794.556	3746552.948	453.00
LOCATION	L0003416	VOLUME	476786.062	3746553.060	454.00
LOCATION	L0003417	VOLUME	476777.600	3746552.254	454.00
LOCATION	L0003418	VOLUME	476769.139	3746551.448	454.00
LOCATION	L0003419	VOLUME	476760.677	3746550.642	454.00
LOCATION	L0003420	VOLUME	476752.215	3746549.837	454.00
LOCATION	L0003421	VOLUME	476743.736	3746549.338	454.00
LOCATION	L0003422	VOLUME	476735.237	3746549.192	454.15
LOCATION	L0003423	VOLUME	476726.739	3746549.045	454.44
LOCATION	L0003424	VOLUME	476718.240	3746548.899	454.72
LOCATION	L0003425	VOLUME	476709.741	3746548.752	455.00
LOCATION	L0003426	VOLUME	476701.243	3746548.606	455.00
LOCATION	L0003427	VOLUME	476692.744	3746548.459	455.00
LOCATION	L0003428	VOLUME	476684.245	3746548.312	455.00
LOCATION	L0003429	VOLUME	476675.746	3746548.166	455.00
LOCATION	L0003430	VOLUME	476667.248	3746548.019	455.00
LOCATION	L0003431	VOLUME	476658.749	3746547.873	455.00
LOCATION	L0003432	VOLUME	476650.250	3746547.726	455.00
LOCATION	L0003433	VOLUME	476641.751	3746547.580	455.17
LOCATION	L0003434	VOLUME	476633.906	3746550.312	455.28
LOCATION	L0003435	VOLUME	476626.304	3746554.114	455.32
LOCATION	L0003436	VOLUME	476618.701	3746557.915	455.30
LOCATION	L0003437	VOLUME	476611.098	3746561.716	455.40
LOCATION	L0003438	VOLUME	476603.496	3746565.518	455.56
LOCATION	L0003439	VOLUME	476596.098	3746569.665	455.79
LOCATION	L0003440	VOLUME	476589.121	3746574.519	456.00
LOCATION	L0003441	VOLUME	476582.143	3746579.373	456.00
LOCATION	L0003442	VOLUME	476575.165	3746584.227	456.00
LOCATION	L0003443	VOLUME	476568.188	3746589.081	456.00
LOCATION	L0003444	VOLUME	476561.210	3746593.935	456.00
LOCATION	L0003445	VOLUME	476554.376	3746598.966	456.00

				Residential
LOCATION	L0003446	VOLUME	476548.214 3746604.820	456.00
LOCATION	L0003447	VOLUME	476542.051 3746610.675	456.00
LOCATION	L0003448	VOLUME	476535.889 3746616.529	456.00
LOCATION	L0003449	VOLUME	476529.726 3746622.383	456.00
LOCATION	L0003450	VOLUME	476523.564 3746628.238	456.00
LOCATION	L0003451	VOLUME	476517.698 3746634.308	456.00
LOCATION	L0003452	VOLUME	476514.020 3746641.971	456.00
LOCATION	L0003453	VOLUME	476510.342 3746649.634	456.00
LOCATION	L0003454	VOLUME	476506.663 3746657.297	456.00
LOCATION	L0003455	VOLUME	476502.985 3746664.960	456.00
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LOCATION	L0003457	VOLUME	476495.636 3746680.289	456.14
LOCATION	L0003458	VOLUME	476492.183 3746688.056	456.26
LOCATION	L0003459	VOLUME	476488.731 3746695.824	456.37
LOCATION	L0003460	VOLUME	476485.279 3746703.591	456.49
LOCATION	L0003461	VOLUME	476481.827 3746711.359	456.60
LOCATION	L0003462	VOLUME	476478.375 3746719.126	456.65
LOCATION	L0003463	VOLUME	476474.923 3746726.893	456.53
LOCATION	L0003464	VOLUME	476471.470 3746734.661	456.36
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LOCATION	L0003466	VOLUME	476465.095 3746750.378	456.16
LOCATION	L0003467	VOLUME	476463.034 3746758.624	456.23
LOCATION	L0003468	VOLUME	476460.972 3746766.870	456.30
LOCATION	L0003469	VOLUME	476458.910 3746775.116	456.36
LOCATION	L0003470	VOLUME	476456.849 3746783.363	456.43
LOCATION	L0003471	VOLUME	476454.787 3746791.609	456.50
LOCATION	L0003472	VOLUME	476452.726 3746799.855	456.57
LOCATION	L0003473	VOLUME	476450.664 3746808.101	456.60
LOCATION	L0003474	VOLUME	476448.603 3746816.347	456.47
LOCATION	L0003475	VOLUME	476446.541 3746824.594	456.30
LOCATION	L0003476	VOLUME	476444.480 3746832.840	456.10
LOCATION	L0003477	VOLUME	476442.418 3746841.086	456.00
LOCATION	L0003478	VOLUME	476438.235 3746848.236	456.05
LOCATION	L0003479	VOLUME	476432.703 3746854.690	456.24
LOCATION	L0003480	VOLUME	476427.172 3746861.144	456.42
LOCATION	L0003481	VOLUME	476421.640 3746867.597	456.58
LOCATION	L0003482	VOLUME	476416.108 3746874.051	456.58
LOCATION	L0003483	VOLUME	476410.576 3746880.505	456.51
LOCATION	L0003484	VOLUME	476405.045 3746886.959	456.42
LOCATION	L0003485	VOLUME	476399.513 3746893.412	456.41
LOCATION	L0003486	VOLUME	476393.483 3746899.363	456.49
LOCATION	L0003487	VOLUME	476386.981 3746904.838	456.54
LOCATION	L0003488	VOLUME	476380.479 3746910.313	456.52
LOCATION	L0003489	VOLUME	476373.977 3746915.788	456.48
LOCATION	L0003490	VOLUME	476367.476 3746921.264	456.51
LOCATION	L0003491	VOLUME	476360.872 3746926.545	456.63
LOCATION	L0003492	VOLUME	476352.672 3746928.781	456.83
LOCATION	L0003493	VOLUME	476344.471 3746931.018	456.87
LOCATION	L0003494	VOLUME	476336.271 3746933.254	456.87
LOCATION	L0003495	VOLUME	476328.070 3746935.491	456.92
LOCATION	L0003496	VOLUME	476319.857 3746937.665	457.00
LOCATION	L0003497	VOLUME	476311.423 3746938.719	457.00
LOCATION	L0003498	VOLUME	476302.988 3746939.773	457.00
LOCATION	L0003499	VOLUME	476294.554 3746940.827	457.00
LOCATION	L0003500	VOLUME	476286.120 3746941.882	457.00
LOCATION	L0003501	VOLUME	476277.685 3746942.936	457.00
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LOCATION	L0003505	VOLUME	476243.821 3746945.344	457.00
LOCATION	L0003506	VOLUME	476235.322 3746945.482	457.00
LOCATION	L0003507	VOLUME	476226.823 3746945.619	457.04
LOCATION	L0003508	VOLUME	476218.324 3746945.756	457.13
LOCATION	L0003509	VOLUME	476209.825 3746945.893	457.23
LOCATION	L0003510	VOLUME	476201.326 3746946.030	457.32
LOCATION	L0003511	VOLUME	476192.827 3746946.167	457.49
LOCATION	L0003512	VOLUME	476184.328 3746946.304	457.68

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                                                    Residential
   LOCATION L0003513     VOLUME   476175.830 3746946.441 457.87
   LOCATION L0003514     VOLUME   476167.331 3746946.578 458.00
   LOCATION L0003515     VOLUME   476158.832 3746946.715 458.00
   LOCATION L0003516     VOLUME   476150.333 3746946.852 458.00
   LOCATION L0003517     VOLUME   476141.834 3746946.989 458.00
   LOCATION L0003518     VOLUME   476133.335 3746947.127 458.22
   LOCATION L0003519     VOLUME   476124.836 3746947.264 458.50
   LOCATION L0003520     VOLUME   476116.337 3746947.401 458.78
   LOCATION L0003521     VOLUME   476107.838 3746947.538 459.00
   LOCATION L0003522     VOLUME   476099.339 3746947.675 459.00
   LOCATION L0003523     VOLUME   476090.841 3746947.812 459.00
   LOCATION L0003524     VOLUME   476082.342 3746947.949 459.00
   LOCATION L0003525     VOLUME   476073.843 3746948.086 459.20
   LOCATION L0003526     VOLUME   476065.344 3746948.223 459.48
   LOCATION L0003527     VOLUME   476056.845 3746948.360 459.77
   LOCATION L0003528     VOLUME   476048.346 3746948.497 460.00
   LOCATION L0003529     VOLUME   476039.847 3746948.634 460.00
   LOCATION L0003530     VOLUME   476031.348 3746948.771 460.00
** End of LINE VOLUME Source ID = SLINE1
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC 90% Outbound to I-215
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0000314
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 25
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** 477477.069, 3746360.711, 449.43, 0.00, 3.95
** 477395.919, 3746386.381, 450.00, 0.00, 3.95
** 477334.642, 3746416.191, 450.00, 0.00, 3.95
** 477300.692, 3746444.345, 450.00, 0.00, 3.95
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** 477119.104, 3746541.941, 451.00, 0.00, 3.95
** 477040.717, 3746547.540, 451.90, 0.00, 3.95
** 476936.201, 3746549.407, 452.15, 0.00, 3.95
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** 476518.137, 3746633.393, 456.11, 0.00, 3.95
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** 476361.364, 3746926.411, 456.75, 0.00, 3.95
** 476320.304, 3746937.609, 457.00, 0.00, 3.95
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   LOCATION L0003534     VOLUME   478284.608 3746760.363 447.00
   LOCATION L0003535     VOLUME   478284.638 3746751.864 447.00
   LOCATION L0003536     VOLUME   478284.669 3746743.364 447.00
   LOCATION L0003537     VOLUME   478284.700 3746734.864 447.00
   LOCATION L0003538     VOLUME   478284.731 3746726.364 447.00
   LOCATION L0003539     VOLUME   478284.762 3746717.864 447.00
   LOCATION L0003540     VOLUME   478284.793 3746709.364 447.00
   LOCATION L0003541     VOLUME   478284.824 3746700.864 447.00
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LOCATION	L0003542	VOLUME	478284.855	3746692.364	447.00
LOCATION	L0003543	VOLUME	478284.886	3746683.864	447.00
LOCATION	L0003544	VOLUME	478284.917	3746675.364	447.00
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LOCATION	L0003546	VOLUME	478284.979	3746658.364	447.00
LOCATION	L0003547	VOLUME	478285.010	3746649.864	447.00
LOCATION	L0003548	VOLUME	478285.040	3746641.364	447.00
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LOCATION	L0003561	VOLUME	478285.443	3746530.865	447.00
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LOCATION	L0003563	VOLUME	478285.504	3746513.865	447.00
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LOCATION	L0003567	VOLUME	478285.628	3746479.865	447.00
LOCATION	L0003568	VOLUME	478285.659	3746471.365	447.00
LOCATION	L0003569	VOLUME	478285.690	3746462.865	447.00
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LOCATION	L0003573	VOLUME	478285.814	3746428.866	446.69
LOCATION	L0003574	VOLUME	478285.845	3746420.366	446.54
LOCATION	L0003575	VOLUME	478285.875	3746411.866	446.47
LOCATION	L0003576	VOLUME	478285.906	3746403.366	446.47
LOCATION	L0003577	VOLUME	478285.937	3746394.866	446.47
LOCATION	L0003578	VOLUME	478285.968	3746386.366	446.46
LOCATION	L0003579	VOLUME	478285.999	3746377.866	446.46
LOCATION	L0003580	VOLUME	478286.030	3746369.366	446.46
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LOCATION	L0003593	VOLUME	478190.867	3746354.564	447.00
LOCATION	L0003594	VOLUME	478182.367	3746354.607	447.00
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LOCATION	L0003597	VOLUME	478156.867	3746354.735	447.00
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LOCATION	L0003599	VOLUME	478139.867	3746354.820	447.00
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LOCATION	L0003601	VOLUME	478122.867	3746354.906	447.00
LOCATION	L0003602	VOLUME	478114.368	3746354.948	447.00
LOCATION	L0003603	VOLUME	478105.868	3746354.991	447.00
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LOCATION	L0003606	VOLUME	478080.368	3746355.119	447.00
LOCATION	L0003607	VOLUME	478071.868	3746355.162	447.00
LOCATION	L0003608	VOLUME	478063.368	3746355.204	447.00

				Residential
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LOCATION	L0003611	VOLUME	478037.869 3746355.332	447.00
LOCATION	L0003612	VOLUME	478029.369 3746355.375	447.00
LOCATION	L0003613	VOLUME	478020.869 3746355.418	447.00
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LOCATION	L0003617	VOLUME	477986.869 3746355.588	447.00
LOCATION	L0003618	VOLUME	477978.369 3746355.631	447.00
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LOCATION	L0003620	VOLUME	477961.369 3746355.716	447.00
LOCATION	L0003621	VOLUME	477952.870 3746355.759	447.00
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LOCATION	L0003647	VOLUME	477731.872 3746356.868	448.00
LOCATION	L0003648	VOLUME	477723.372 3746356.911	448.00
LOCATION	L0003649	VOLUME	477714.873 3746356.953	448.00
LOCATION	L0003650	VOLUME	477706.373 3746356.996	448.00
LOCATION	L0003651	VOLUME	477697.873 3746357.039	448.00
LOCATION	L0003652	VOLUME	477689.373 3746357.081	448.00
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LOCATION	L0003654	VOLUME	477672.373 3746357.167	448.00
LOCATION	L0003655	VOLUME	477663.873 3746357.209	448.00
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LOCATION	L0003660	VOLUME	477621.375 3746357.504	448.62
LOCATION	L0003661	VOLUME	477612.877 3746357.693	448.90
LOCATION	L0003662	VOLUME	477604.379 3746357.882	449.00
LOCATION	L0003663	VOLUME	477595.881 3746358.071	449.00
LOCATION	L0003664	VOLUME	477587.383 3746358.260	449.00
LOCATION	L0003665	VOLUME	477578.885 3746358.448	449.00
LOCATION	L0003666	VOLUME	477570.387 3746358.637	449.00
LOCATION	L0003667	VOLUME	477561.890 3746358.826	449.00
LOCATION	L0003668	VOLUME	477553.392 3746359.015	449.00
LOCATION	L0003669	VOLUME	477544.894 3746359.204	449.00
LOCATION	L0003670	VOLUME	477536.396 3746359.393	449.00
LOCATION	L0003671	VOLUME	477527.898 3746359.581	449.00
LOCATION	L0003672	VOLUME	477519.400 3746359.770	449.00
LOCATION	L0003673	VOLUME	477510.902 3746359.959	449.00
LOCATION	L0003674	VOLUME	477502.404 3746360.148	449.00
LOCATION	L0003675	VOLUME	477493.906 3746360.337	449.00

Residential

LOCATION	L0003676	VOLUME	477485.408	3746360.526	449.15
LOCATION	L0003677	VOLUME	477476.918	3746360.759	449.43
LOCATION	L0003678	VOLUME	477468.814	3746363.322	449.70
LOCATION	L0003679	VOLUME	477460.709	3746365.886	449.97
LOCATION	L0003680	VOLUME	477452.605	3746368.450	450.00
LOCATION	L0003681	VOLUME	477444.501	3746371.013	450.00
LOCATION	L0003682	VOLUME	477436.397	3746373.577	450.00
LOCATION	L0003683	VOLUME	477428.293	3746376.140	450.00
LOCATION	L0003684	VOLUME	477420.188	3746378.704	450.00
LOCATION	L0003685	VOLUME	477412.084	3746381.267	450.00
LOCATION	L0003686	VOLUME	477403.980	3746383.831	450.00
LOCATION	L0003687	VOLUME	477395.878	3746386.401	450.00
LOCATION	L0003688	VOLUME	477388.235	3746390.119	450.00
LOCATION	L0003689	VOLUME	477380.591	3746393.838	450.00
LOCATION	L0003690	VOLUME	477372.948	3746397.556	450.00
LOCATION	L0003691	VOLUME	477365.304	3746401.275	450.00
LOCATION	L0003692	VOLUME	477357.661	3746404.993	450.00
LOCATION	L0003693	VOLUME	477350.017	3746408.711	450.00
LOCATION	L0003694	VOLUME	477342.374	3746412.430	450.00
LOCATION	L0003695	VOLUME	477334.730	3746416.148	450.00
LOCATION	L0003696	VOLUME	477328.175	3746421.555	450.00
LOCATION	L0003697	VOLUME	477321.632	3746426.980	450.00
LOCATION	L0003698	VOLUME	477315.089	3746432.406	450.00
LOCATION	L0003699	VOLUME	477308.546	3746437.832	450.00
LOCATION	L0003700	VOLUME	477302.003	3746443.258	450.00
LOCATION	L0003701	VOLUME	477295.127	3746448.248	450.00
LOCATION	L0003702	VOLUME	477288.169	3746453.129	450.00
LOCATION	L0003703	VOLUME	477281.210	3746458.010	450.00
LOCATION	L0003704	VOLUME	477274.251	3746462.891	450.00
LOCATION	L0003705	VOLUME	477267.292	3746467.772	450.00
LOCATION	L0003706	VOLUME	477260.333	3746472.654	450.00
LOCATION	L0003707	VOLUME	477253.374	3746477.535	450.00
LOCATION	L0003708	VOLUME	477246.416	3746482.416	450.09
LOCATION	L0003709	VOLUME	477239.457	3746487.297	450.22
LOCATION	L0003710	VOLUME	477232.498	3746492.178	450.27
LOCATION	L0003711	VOLUME	477225.539	3746497.059	450.25
LOCATION	L0003712	VOLUME	477218.580	3746501.940	450.18
LOCATION	L0003713	VOLUME	477211.621	3746506.821	450.27
LOCATION	L0003714	VOLUME	477204.663	3746511.702	450.51
LOCATION	L0003715	VOLUME	477197.704	3746516.583	450.74
LOCATION	L0003716	VOLUME	477190.745	3746521.464	450.97
LOCATION	L0003717	VOLUME	477183.003	3746524.671	451.00
LOCATION	L0003718	VOLUME	477174.797	3746526.889	451.00
LOCATION	L0003719	VOLUME	477166.591	3746529.107	451.00
LOCATION	L0003720	VOLUME	477158.386	3746531.324	451.00
LOCATION	L0003721	VOLUME	477150.180	3746533.542	451.00
LOCATION	L0003722	VOLUME	477141.975	3746535.760	451.00
LOCATION	L0003723	VOLUME	477133.769	3746537.978	451.00
LOCATION	L0003724	VOLUME	477125.564	3746540.195	451.00
LOCATION	L0003725	VOLUME	477117.300	3746542.070	451.00
LOCATION	L0003726	VOLUME	477108.821	3746542.676	451.00
LOCATION	L0003727	VOLUME	477100.343	3746543.281	451.00
LOCATION	L0003728	VOLUME	477091.865	3746543.887	451.00
LOCATION	L0003729	VOLUME	477083.386	3746544.492	451.00
LOCATION	L0003730	VOLUME	477074.908	3746545.098	451.00
LOCATION	L0003731	VOLUME	477066.429	3746545.704	451.08
LOCATION	L0003732	VOLUME	477057.951	3746546.309	451.26
LOCATION	L0003733	VOLUME	477049.473	3746546.915	451.44
LOCATION	L0003734	VOLUME	477040.994	3746547.520	451.60
LOCATION	L0003735	VOLUME	477032.496	3746547.687	451.71
LOCATION	L0003736	VOLUME	477023.998	3746547.839	451.82
LOCATION	L0003737	VOLUME	477015.499	3746547.990	451.93
LOCATION	L0003738	VOLUME	477007.000	3746548.142	452.00
LOCATION	L0003739	VOLUME	476998.502	3746548.294	452.00
LOCATION	L0003740	VOLUME	476990.003	3746548.446	452.00
LOCATION	L0003741	VOLUME	476981.504	3746548.598	452.00
LOCATION	L0003742	VOLUME	476973.006	3746548.749	452.00

Residential

LOCATION	L0003743	VOLUME	476964.507	3746548.901	452.00
LOCATION	L0003744	VOLUME	476956.008	3746549.053	452.00
LOCATION	L0003745	VOLUME	476947.510	3746549.205	452.00
LOCATION	L0003746	VOLUME	476939.011	3746549.356	452.00
LOCATION	L0003747	VOLUME	476930.513	3746549.549	452.00
LOCATION	L0003748	VOLUME	476922.016	3746549.761	452.00
LOCATION	L0003749	VOLUME	476913.519	3746549.974	452.11
LOCATION	L0003750	VOLUME	476905.021	3746550.186	452.26
LOCATION	L0003751	VOLUME	476896.524	3746550.398	452.41
LOCATION	L0003752	VOLUME	476888.027	3746550.611	452.55
LOCATION	L0003753	VOLUME	476879.529	3746550.823	452.68
LOCATION	L0003754	VOLUME	476871.032	3746551.036	452.82
LOCATION	L0003755	VOLUME	476862.535	3746551.248	452.96
LOCATION	L0003756	VOLUME	476854.037	3746551.461	453.00
LOCATION	L0003757	VOLUME	476845.540	3746551.673	453.00
LOCATION	L0003758	VOLUME	476837.043	3746551.885	453.00
LOCATION	L0003759	VOLUME	476828.545	3746552.098	453.00
LOCATION	L0003760	VOLUME	476820.048	3746552.310	453.00
LOCATION	L0003761	VOLUME	476811.551	3746552.523	453.00
LOCATION	L0003762	VOLUME	476803.053	3746552.735	453.00
LOCATION	L0003763	VOLUME	476794.556	3746552.948	453.00
LOCATION	L0003764	VOLUME	476786.062	3746553.060	454.00
LOCATION	L0003765	VOLUME	476777.600	3746552.254	454.00
LOCATION	L0003766	VOLUME	476769.139	3746551.448	454.00
LOCATION	L0003767	VOLUME	476760.677	3746550.642	454.00
LOCATION	L0003768	VOLUME	476752.215	3746549.837	454.00
LOCATION	L0003769	VOLUME	476743.736	3746549.338	454.00
LOCATION	L0003770	VOLUME	476735.237	3746549.192	454.15
LOCATION	L0003771	VOLUME	476726.739	3746549.045	454.44
LOCATION	L0003772	VOLUME	476718.240	3746548.899	454.72
LOCATION	L0003773	VOLUME	476709.741	3746548.752	455.00
LOCATION	L0003774	VOLUME	476701.243	3746548.606	455.00
LOCATION	L0003775	VOLUME	476692.744	3746548.459	455.00
LOCATION	L0003776	VOLUME	476684.245	3746548.312	455.00
LOCATION	L0003777	VOLUME	476675.746	3746548.166	455.00
LOCATION	L0003778	VOLUME	476667.248	3746548.019	455.00
LOCATION	L0003779	VOLUME	476658.749	3746547.873	455.00
LOCATION	L0003780	VOLUME	476650.250	3746547.726	455.00
LOCATION	L0003781	VOLUME	476641.751	3746547.580	455.17
LOCATION	L0003782	VOLUME	476633.906	3746550.312	455.28
LOCATION	L0003783	VOLUME	476626.304	3746554.114	455.32
LOCATION	L0003784	VOLUME	476618.701	3746557.915	455.30
LOCATION	L0003785	VOLUME	476611.098	3746561.716	455.40
LOCATION	L0003786	VOLUME	476603.496	3746565.518	455.56
LOCATION	L0003787	VOLUME	476596.098	3746569.665	455.79
LOCATION	L0003788	VOLUME	476589.121	3746574.519	456.00
LOCATION	L0003789	VOLUME	476582.143	3746579.373	456.00
LOCATION	L0003790	VOLUME	476575.165	3746584.227	456.00
LOCATION	L0003791	VOLUME	476568.188	3746589.081	456.00
LOCATION	L0003792	VOLUME	476561.210	3746593.935	456.00
LOCATION	L0003793	VOLUME	476554.376	3746598.966	456.00
LOCATION	L0003794	VOLUME	476548.214	3746604.820	456.00
LOCATION	L0003795	VOLUME	476542.051	3746610.675	456.00
LOCATION	L0003796	VOLUME	476535.889	3746616.529	456.00
LOCATION	L0003797	VOLUME	476529.726	3746622.383	456.00
LOCATION	L0003798	VOLUME	476523.564	3746628.238	456.00
LOCATION	L0003799	VOLUME	476517.698	3746634.308	456.00
LOCATION	L0003800	VOLUME	476514.020	3746641.971	456.00
LOCATION	L0003801	VOLUME	476510.342	3746649.634	456.00
LOCATION	L0003802	VOLUME	476506.663	3746657.297	456.00
LOCATION	L0003803	VOLUME	476502.985	3746664.960	456.00
LOCATION	L0003804	VOLUME	476499.307	3746672.623	456.02
LOCATION	L0003805	VOLUME	476495.636	3746680.289	456.14
LOCATION	L0003806	VOLUME	476492.183	3746688.056	456.26
LOCATION	L0003807	VOLUME	476488.731	3746695.824	456.37
LOCATION	L0003808	VOLUME	476485.279	3746703.591	456.49
LOCATION	L0003809	VOLUME	476481.827	3746711.359	456.60

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LOCATION	L0003810	VOLUME	476478.375	3746719.126	456.65
LOCATION	L0003811	VOLUME	476474.923	3746726.893	456.53
LOCATION	L0003812	VOLUME	476471.470	3746734.661	456.36
LOCATION	L0003813	VOLUME	476468.018	3746742.428	456.18
LOCATION	L0003814	VOLUME	476465.095	3746750.378	456.16
LOCATION	L0003815	VOLUME	476463.034	3746758.624	456.23
LOCATION	L0003816	VOLUME	476460.972	3746766.870	456.30
LOCATION	L0003817	VOLUME	476458.910	3746775.116	456.36
LOCATION	L0003818	VOLUME	476456.849	3746783.363	456.43
LOCATION	L0003819	VOLUME	476454.787	3746791.609	456.50
LOCATION	L0003820	VOLUME	476452.726	3746799.855	456.57
LOCATION	L0003821	VOLUME	476450.664	3746808.101	456.60
LOCATION	L0003822	VOLUME	476448.603	3746816.347	456.47
LOCATION	L0003823	VOLUME	476446.541	3746824.594	456.30
LOCATION	L0003824	VOLUME	476444.480	3746832.840	456.10
LOCATION	L0003825	VOLUME	476442.418	3746841.086	456.00
LOCATION	L0003826	VOLUME	476438.235	3746848.236	456.05
LOCATION	L0003827	VOLUME	476432.703	3746854.690	456.24
LOCATION	L0003828	VOLUME	476427.172	3746861.144	456.42
LOCATION	L0003829	VOLUME	476421.640	3746867.597	456.58
LOCATION	L0003830	VOLUME	476416.108	3746874.051	456.58
LOCATION	L0003831	VOLUME	476410.576	3746880.505	456.51
LOCATION	L0003832	VOLUME	476405.045	3746886.959	456.42
LOCATION	L0003833	VOLUME	476399.513	3746893.412	456.41
LOCATION	L0003834	VOLUME	476393.483	3746899.363	456.49
LOCATION	L0003835	VOLUME	476386.981	3746904.838	456.54
LOCATION	L0003836	VOLUME	476380.479	3746910.313	456.52
LOCATION	L0003837	VOLUME	476373.977	3746915.788	456.48
LOCATION	L0003838	VOLUME	476367.476	3746921.264	456.51
LOCATION	L0003839	VOLUME	476360.872	3746926.545	456.63
LOCATION	L0003840	VOLUME	476352.672	3746928.781	456.83
LOCATION	L0003841	VOLUME	476344.471	3746931.018	456.87
LOCATION	L0003842	VOLUME	476336.271	3746933.254	456.87
LOCATION	L0003843	VOLUME	476328.070	3746935.491	456.92
LOCATION	L0003844	VOLUME	476319.857	3746937.665	457.00
LOCATION	L0003845	VOLUME	476311.423	3746938.719	457.00
LOCATION	L0003846	VOLUME	476302.988	3746939.773	457.00
LOCATION	L0003847	VOLUME	476294.554	3746940.827	457.00
LOCATION	L0003848	VOLUME	476286.120	3746941.882	457.00
LOCATION	L0003849	VOLUME	476277.685	3746942.936	457.00
LOCATION	L0003850	VOLUME	476269.251	3746943.990	457.00
LOCATION	L0003851	VOLUME	476260.817	3746945.045	457.00
LOCATION	L0003852	VOLUME	476252.320	3746945.207	457.00
LOCATION	L0003853	VOLUME	476243.821	3746945.344	457.00
LOCATION	L0003854	VOLUME	476235.322	3746945.482	457.00
LOCATION	L0003855	VOLUME	476226.823	3746945.619	457.04
LOCATION	L0003856	VOLUME	476218.324	3746945.756	457.13
LOCATION	L0003857	VOLUME	476209.825	3746945.893	457.23
LOCATION	L0003858	VOLUME	476201.326	3746946.030	457.32
LOCATION	L0003859	VOLUME	476192.827	3746946.167	457.49
LOCATION	L0003860	VOLUME	476184.328	3746946.304	457.68
LOCATION	L0003861	VOLUME	476175.830	3746946.441	457.87
LOCATION	L0003862	VOLUME	476167.331	3746946.578	458.00
LOCATION	L0003863	VOLUME	476158.832	3746946.715	458.00
LOCATION	L0003864	VOLUME	476150.333	3746946.852	458.00
LOCATION	L0003865	VOLUME	476141.834	3746946.989	458.00
LOCATION	L0003866	VOLUME	476133.335	3746947.127	458.22
LOCATION	L0003867	VOLUME	476124.836	3746947.264	458.50
LOCATION	L0003868	VOLUME	476116.337	3746947.401	458.78
LOCATION	L0003869	VOLUME	476107.838	3746947.538	459.00
LOCATION	L0003870	VOLUME	476099.339	3746947.675	459.00
LOCATION	L0003871	VOLUME	476090.841	3746947.812	459.00
LOCATION	L0003872	VOLUME	476082.342	3746947.949	459.00
LOCATION	L0003873	VOLUME	476073.843	3746948.086	459.20
LOCATION	L0003874	VOLUME	476065.344	3746948.223	459.48
LOCATION	L0003875	VOLUME	476056.845	3746948.360	459.77
LOCATION	L0003876	VOLUME	476048.346	3746948.497	460.00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                    Residential
   LOCATION L0003877     VOLUME   476039.847 3746948.634 460.00
   LOCATION L0003878     VOLUME   476031.348 3746948.771 460.00
** End of LINE VOLUME Source ID = SLINE2
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC 5% Inbound from Nandina
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 1.066E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 479069.910, 3747774.731, 448.00, 0.00, 3.95
** 478273.988, 3747774.731, 449.00, 0.00, 3.95
** 478285.591, 3746765.326, 447.00, 0.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0003879     VOLUME   479065.660 3747774.731 448.00
   LOCATION L0003880     VOLUME   479057.160 3747774.731 448.00
   LOCATION L0003881     VOLUME   479048.660 3747774.731 448.00
   LOCATION L0003882     VOLUME   479040.160 3747774.731 448.00
   LOCATION L0003883     VOLUME   479031.660 3747774.731 448.00
   LOCATION L0003884     VOLUME   479023.160 3747774.731 448.00
   LOCATION L0003885     VOLUME   479014.660 3747774.731 448.00
   LOCATION L0003886     VOLUME   479006.160 3747774.731 448.00
   LOCATION L0003887     VOLUME   478997.660 3747774.731 448.00
   LOCATION L0003888     VOLUME   478989.160 3747774.731 448.00
   LOCATION L0003889     VOLUME   478980.660 3747774.731 448.00
   LOCATION L0003890     VOLUME   478972.160 3747774.731 448.00
   LOCATION L0003891     VOLUME   478963.660 3747774.731 448.00
   LOCATION L0003892     VOLUME   478955.160 3747774.731 448.00
   LOCATION L0003893     VOLUME   478946.660 3747774.731 448.00
   LOCATION L0003894     VOLUME   478938.160 3747774.731 448.00
   LOCATION L0003895     VOLUME   478929.660 3747774.731 448.00
   LOCATION L0003896     VOLUME   478921.160 3747774.731 448.00
   LOCATION L0003897     VOLUME   478912.660 3747774.731 448.00
   LOCATION L0003898     VOLUME   478904.160 3747774.731 448.00
   LOCATION L0003899     VOLUME   478895.660 3747774.731 448.04
   LOCATION L0003900     VOLUME   478887.160 3747774.731 448.12
   LOCATION L0003901     VOLUME   478878.660 3747774.731 448.20
   LOCATION L0003902     VOLUME   478870.160 3747774.731 448.28
   LOCATION L0003903     VOLUME   478861.660 3747774.731 448.48
   LOCATION L0003904     VOLUME   478853.160 3747774.731 448.68
   LOCATION L0003905     VOLUME   478844.660 3747774.731 448.89
   LOCATION L0003906     VOLUME   478836.160 3747774.731 449.00
   LOCATION L0003907     VOLUME   478827.660 3747774.731 449.00
   LOCATION L0003908     VOLUME   478819.160 3747774.731 449.00
   LOCATION L0003909     VOLUME   478810.660 3747774.731 449.00
   LOCATION L0003910     VOLUME   478802.160 3747774.731 449.00
   LOCATION L0003911     VOLUME   478793.660 3747774.731 449.00
   LOCATION L0003912     VOLUME   478785.160 3747774.731 449.00
   LOCATION L0003913     VOLUME   478776.660 3747774.731 449.00
   LOCATION L0003914     VOLUME   478768.160 3747774.731 449.00
   LOCATION L0003915     VOLUME   478759.660 3747774.731 449.00
   LOCATION L0003916     VOLUME   478751.160 3747774.731 449.00
   LOCATION L0003917     VOLUME   478742.660 3747774.731 449.00
   LOCATION L0003918     VOLUME   478734.160 3747774.731 449.00
   LOCATION L0003919     VOLUME   478725.660 3747774.731 449.00
   LOCATION L0003920     VOLUME   478717.160 3747774.731 449.00
   LOCATION L0003921     VOLUME   478708.660 3747774.731 449.00
   LOCATION L0003922     VOLUME   478700.160 3747774.731 449.00
   LOCATION L0003923     VOLUME   478691.660 3747774.731 449.00
   LOCATION L0003924     VOLUME   478683.160 3747774.731 449.00
   LOCATION L0003925     VOLUME   478674.660 3747774.731 449.00
   LOCATION L0003926     VOLUME   478666.160 3747774.731 449.00
   LOCATION L0003927     VOLUME   478657.660 3747774.731 449.00
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				Residential
LOCATION	L0003928	VOLUME	478649.160	3747774.731 449.00
LOCATION	L0003929	VOLUME	478640.660	3747774.731 449.00
LOCATION	L0003930	VOLUME	478632.160	3747774.731 449.00
LOCATION	L0003931	VOLUME	478623.660	3747774.731 449.00
LOCATION	L0003932	VOLUME	478615.160	3747774.731 449.00
LOCATION	L0003933	VOLUME	478606.660	3747774.731 449.00
LOCATION	L0003934	VOLUME	478598.160	3747774.731 449.00
LOCATION	L0003935	VOLUME	478589.660	3747774.731 449.00
LOCATION	L0003936	VOLUME	478581.160	3747774.731 449.00
LOCATION	L0003937	VOLUME	478572.660	3747774.731 449.00
LOCATION	L0003938	VOLUME	478564.160	3747774.731 449.00
LOCATION	L0003939	VOLUME	478555.660	3747774.731 449.00
LOCATION	L0003940	VOLUME	478547.160	3747774.731 449.00
LOCATION	L0003941	VOLUME	478538.660	3747774.731 449.00
LOCATION	L0003942	VOLUME	478530.160	3747774.731 449.00
LOCATION	L0003943	VOLUME	478521.660	3747774.731 449.00
LOCATION	L0003944	VOLUME	478513.160	3747774.731 449.00
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LOCATION	L0003950	VOLUME	478462.160	3747774.731 449.00
LOCATION	L0003951	VOLUME	478453.660	3747774.731 449.00
LOCATION	L0003952	VOLUME	478445.160	3747774.731 449.00
LOCATION	L0003953	VOLUME	478436.660	3747774.731 449.00
LOCATION	L0003954	VOLUME	478428.160	3747774.731 449.00
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LOCATION	L0003957	VOLUME	478402.660	3747774.731 449.00
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LOCATION	L0003961	VOLUME	478368.660	3747774.731 449.00
LOCATION	L0003962	VOLUME	478360.160	3747774.731 449.00
LOCATION	L0003963	VOLUME	478351.660	3747774.731 449.00
LOCATION	L0003964	VOLUME	478343.160	3747774.731 449.00
LOCATION	L0003965	VOLUME	478334.660	3747774.731 449.00
LOCATION	L0003966	VOLUME	478326.160	3747774.731 449.00
LOCATION	L0003967	VOLUME	478317.660	3747774.731 449.00
LOCATION	L0003968	VOLUME	478309.160	3747774.731 449.00
LOCATION	L0003969	VOLUME	478300.660	3747774.731 449.00
LOCATION	L0003970	VOLUME	478292.160	3747774.731 449.00
LOCATION	L0003971	VOLUME	478283.660	3747774.731 449.00
LOCATION	L0003972	VOLUME	478275.160	3747774.731 449.00
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LOCATION	L0003975	VOLUME	478274.268	3747750.404 449.00
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LOCATION	L0003977	VOLUME	478274.463	3747733.405 449.00
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LOCATION	L0003979	VOLUME	478274.659	3747716.406 449.00
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LOCATION	L0003983	VOLUME	478275.050	3747682.408 449.00
LOCATION	L0003984	VOLUME	478275.147	3747673.909 448.92
LOCATION	L0003985	VOLUME	478275.245	3747665.409 448.64
LOCATION	L0003986	VOLUME	478275.343	3747656.910 448.36
LOCATION	L0003987	VOLUME	478275.440	3747648.410 448.07
LOCATION	L0003988	VOLUME	478275.538	3747639.911 448.00
LOCATION	L0003989	VOLUME	478275.636	3747631.412 448.00
LOCATION	L0003990	VOLUME	478275.733	3747622.912 448.00
LOCATION	L0003991	VOLUME	478275.831	3747614.413 448.00
LOCATION	L0003992	VOLUME	478275.929	3747605.913 448.00
LOCATION	L0003993	VOLUME	478276.027	3747597.414 448.00
LOCATION	L0003994	VOLUME	478276.124	3747588.914 448.00

					Residential
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LOCATION	L0003996	VOLUME	478276.320	3747571.915	448.00
LOCATION	L0003997	VOLUME	478276.417	3747563.416	448.00
LOCATION	L0003998	VOLUME	478276.515	3747554.917	448.00
LOCATION	L0003999	VOLUME	478276.613	3747546.417	448.00
LOCATION	L0004000	VOLUME	478276.710	3747537.918	448.00
LOCATION	L0004001	VOLUME	478276.808	3747529.418	448.00
LOCATION	L0004002	VOLUME	478276.906	3747520.919	448.00
LOCATION	L0004003	VOLUME	478277.004	3747512.419	448.00
LOCATION	L0004004	VOLUME	478277.101	3747503.920	448.00
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LOCATION	L0004007	VOLUME	478277.394	3747478.422	448.00
LOCATION	L0004008	VOLUME	478277.492	3747469.922	448.00
LOCATION	L0004009	VOLUME	478277.590	3747461.423	448.00
LOCATION	L0004010	VOLUME	478277.687	3747452.923	448.00
LOCATION	L0004011	VOLUME	478277.785	3747444.424	448.00
LOCATION	L0004012	VOLUME	478277.883	3747435.924	448.00
LOCATION	L0004013	VOLUME	478277.980	3747427.425	448.00
LOCATION	L0004014	VOLUME	478278.078	3747418.926	448.00
LOCATION	L0004015	VOLUME	478278.176	3747410.426	448.00
LOCATION	L0004016	VOLUME	478278.274	3747401.927	448.00
LOCATION	L0004017	VOLUME	478278.371	3747393.427	448.00
LOCATION	L0004018	VOLUME	478278.469	3747384.928	448.00
LOCATION	L0004019	VOLUME	478278.567	3747376.428	448.00
LOCATION	L0004020	VOLUME	478278.664	3747367.929	448.00
LOCATION	L0004021	VOLUME	478278.762	3747359.430	448.00
LOCATION	L0004022	VOLUME	478278.860	3747350.930	448.00
LOCATION	L0004023	VOLUME	478278.957	3747342.431	448.00
LOCATION	L0004024	VOLUME	478279.055	3747333.931	448.00
LOCATION	L0004025	VOLUME	478279.153	3747325.432	448.00
LOCATION	L0004026	VOLUME	478279.250	3747316.932	448.00
LOCATION	L0004027	VOLUME	478279.348	3747308.433	448.00
LOCATION	L0004028	VOLUME	478279.446	3747299.933	448.00
LOCATION	L0004029	VOLUME	478279.544	3747291.434	448.00
LOCATION	L0004030	VOLUME	478279.641	3747282.935	448.00
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LOCATION	L0004046	VOLUME	478281.204	3747146.944	448.00
LOCATION	L0004047	VOLUME	478281.302	3747138.444	448.00
LOCATION	L0004048	VOLUME	478281.400	3747129.945	448.00
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LOCATION	L0004050	VOLUME	478281.595	3747112.946	448.00
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LOCATION	L0004052	VOLUME	478281.791	3747095.947	448.00
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LOCATION	L0004054	VOLUME	478281.986	3747078.948	448.00
LOCATION	L0004055	VOLUME	478282.084	3747070.449	448.00
LOCATION	L0004056	VOLUME	478282.181	3747061.949	448.00
LOCATION	L0004057	VOLUME	478282.279	3747053.450	448.00
LOCATION	L0004058	VOLUME	478282.377	3747044.950	448.00
LOCATION	L0004059	VOLUME	478282.474	3747036.451	448.00
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LOCATION	L0004061	VOLUME	478282.670	3747019.452	448.00

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                                                    Residential
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   LOCATION L0004064     VOLUME   478282.963 3746993.954 448.00
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   LOCATION L0004067     VOLUME   478283.256 3746968.455 448.00
   LOCATION L0004068     VOLUME   478283.354 3746959.956 448.00
   LOCATION L0004069     VOLUME   478283.451 3746951.456 448.00
   LOCATION L0004070     VOLUME   478283.549 3746942.957 448.00
   LOCATION L0004071     VOLUME   478283.647 3746934.458 448.00
   LOCATION L0004072     VOLUME   478283.744 3746925.958 448.00
   LOCATION L0004073     VOLUME   478283.842 3746917.459 448.00
   LOCATION L0004074     VOLUME   478283.940 3746908.959 448.00
   LOCATION L0004075     VOLUME   478284.038 3746900.460 448.00
   LOCATION L0004076     VOLUME   478284.135 3746891.960 448.00
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   LOCATION L0004079     VOLUME   478284.428 3746866.462 448.00
   LOCATION L0004080     VOLUME   478284.526 3746857.963 447.87
   LOCATION L0004081     VOLUME   478284.624 3746849.463 447.73
   LOCATION L0004082     VOLUME   478284.721 3746840.964 447.58
   LOCATION L0004083     VOLUME   478284.819 3746832.464 447.44
   LOCATION L0004084     VOLUME   478284.917 3746823.965 447.30
   LOCATION L0004085     VOLUME   478285.014 3746815.465 447.15
   LOCATION L0004086     VOLUME   478285.112 3746806.966 447.01
   LOCATION L0004087     VOLUME   478285.210 3746798.467 447.00
   LOCATION L0004088     VOLUME   478285.308 3746789.967 447.00
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** End of LINE VOLUME Source ID = SLINE3
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC 5% Outbound to Nandina
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 3.099E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
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** 478285.591, 3746765.326, 447.00, 0.00, 3.95
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   LOCATION L0004093     VOLUME   479048.660 3747774.731 448.00
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   LOCATION L0004101     VOLUME   478980.660 3747774.731 448.00
   LOCATION L0004102     VOLUME   478972.160 3747774.731 448.00
   LOCATION L0004103     VOLUME   478963.660 3747774.731 448.00
   LOCATION L0004104     VOLUME   478955.160 3747774.731 448.00
   LOCATION L0004105     VOLUME   478946.660 3747774.731 448.00
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   LOCATION L0004108     VOLUME   478921.160 3747774.731 448.00
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   LOCATION L0004112     VOLUME   478887.160 3747774.731 448.12
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				Residential
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LOCATION	L0004115	VOLUME	478861.660 3747774.731	448.48
LOCATION	L0004116	VOLUME	478853.160 3747774.731	448.68
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LOCATION	L0004118	VOLUME	478836.160 3747774.731	449.00
LOCATION	L0004119	VOLUME	478827.660 3747774.731	449.00
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LOCATION	L0004122	VOLUME	478802.160 3747774.731	449.00
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LOCATION	L0004125	VOLUME	478776.660 3747774.731	449.00
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				Residential
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LOCATION	L0004203	VOLUME	478275.831 3747614.413	448.00
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LOCATION	L0004223	VOLUME	478277.785 3747444.424	448.00
LOCATION	L0004224	VOLUME	478277.883 3747435.924	448.00
LOCATION	L0004225	VOLUME	478277.980 3747427.425	448.00
LOCATION	L0004226	VOLUME	478278.078 3747418.926	448.00
LOCATION	L0004227	VOLUME	478278.176 3747410.426	448.00
LOCATION	L0004228	VOLUME	478278.274 3747401.927	448.00
LOCATION	L0004229	VOLUME	478278.371 3747393.427	448.00
LOCATION	L0004230	VOLUME	478278.469 3747384.928	448.00
LOCATION	L0004231	VOLUME	478278.567 3747376.428	448.00
LOCATION	L0004232	VOLUME	478278.664 3747367.929	448.00
LOCATION	L0004233	VOLUME	478278.762 3747359.430	448.00
LOCATION	L0004234	VOLUME	478278.860 3747350.930	448.00
LOCATION	L0004235	VOLUME	478278.957 3747342.431	448.00
LOCATION	L0004236	VOLUME	478279.055 3747333.931	448.00
LOCATION	L0004237	VOLUME	478279.153 3747325.432	448.00
LOCATION	L0004238	VOLUME	478279.250 3747316.932	448.00
LOCATION	L0004239	VOLUME	478279.348 3747308.433	448.00
LOCATION	L0004240	VOLUME	478279.446 3747299.933	448.00
LOCATION	L0004241	VOLUME	478279.544 3747291.434	448.00
LOCATION	L0004242	VOLUME	478279.641 3747282.935	448.00
LOCATION	L0004243	VOLUME	478279.739 3747274.435	448.00
LOCATION	L0004244	VOLUME	478279.837 3747265.936	448.00
LOCATION	L0004245	VOLUME	478279.934 3747257.436	448.00
LOCATION	L0004246	VOLUME	478280.032 3747248.937	448.00

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                                                    Residential
   LOCATION L0004247     VOLUME   478280.130 3747240.437 448.00
   LOCATION L0004248     VOLUME   478280.227 3747231.938 448.00
   LOCATION L0004249     VOLUME   478280.325 3747223.438 448.00
   LOCATION L0004250     VOLUME   478280.423 3747214.939 448.00
   LOCATION L0004251     VOLUME   478280.521 3747206.440 448.00
   LOCATION L0004252     VOLUME   478280.618 3747197.940 448.00
   LOCATION L0004253     VOLUME   478280.716 3747189.441 448.00
   LOCATION L0004254     VOLUME   478280.814 3747180.941 448.00
   LOCATION L0004255     VOLUME   478280.911 3747172.442 448.00
   LOCATION L0004256     VOLUME   478281.009 3747163.942 448.00
   LOCATION L0004257     VOLUME   478281.107 3747155.443 448.00
   LOCATION L0004258     VOLUME   478281.204 3747146.944 448.00
   LOCATION L0004259     VOLUME   478281.302 3747138.444 448.00
   LOCATION L0004260     VOLUME   478281.400 3747129.945 448.00
   LOCATION L0004261     VOLUME   478281.497 3747121.445 448.00
   LOCATION L0004262     VOLUME   478281.595 3747112.946 448.00
   LOCATION L0004263     VOLUME   478281.693 3747104.446 448.00
   LOCATION L0004264     VOLUME   478281.791 3747095.947 448.00
   LOCATION L0004265     VOLUME   478281.888 3747087.447 448.00
   LOCATION L0004266     VOLUME   478281.986 3747078.948 448.00
   LOCATION L0004267     VOLUME   478282.084 3747070.449 448.00
   LOCATION L0004268     VOLUME   478282.181 3747061.949 448.00
   LOCATION L0004269     VOLUME   478282.279 3747053.450 448.00
   LOCATION L0004270     VOLUME   478282.377 3747044.950 448.00
   LOCATION L0004271     VOLUME   478282.474 3747036.451 448.00
   LOCATION L0004272     VOLUME   478282.572 3747027.951 448.00
   LOCATION L0004273     VOLUME   478282.670 3747019.452 448.00
   LOCATION L0004274     VOLUME   478282.768 3747010.953 448.00
   LOCATION L0004275     VOLUME   478282.865 3747002.453 448.00
   LOCATION L0004276     VOLUME   478282.963 3746993.954 448.00
   LOCATION L0004277     VOLUME   478283.061 3746985.454 448.00
   LOCATION L0004278     VOLUME   478283.158 3746976.955 448.00
   LOCATION L0004279     VOLUME   478283.256 3746968.455 448.00
   LOCATION L0004280     VOLUME   478283.354 3746959.956 448.00
   LOCATION L0004281     VOLUME   478283.451 3746951.456 448.00
   LOCATION L0004282     VOLUME   478283.549 3746942.957 448.00
   LOCATION L0004283     VOLUME   478283.647 3746934.458 448.00
   LOCATION L0004284     VOLUME   478283.744 3746925.958 448.00
   LOCATION L0004285     VOLUME   478283.842 3746917.459 448.00
   LOCATION L0004286     VOLUME   478283.940 3746908.959 448.00
   LOCATION L0004287     VOLUME   478284.038 3746900.460 448.00
   LOCATION L0004288     VOLUME   478284.135 3746891.960 448.00
   LOCATION L0004289     VOLUME   478284.233 3746883.461 448.00
   LOCATION L0004290     VOLUME   478284.331 3746874.962 448.00
   LOCATION L0004291     VOLUME   478284.428 3746866.462 448.00
   LOCATION L0004292     VOLUME   478284.526 3746857.963 447.87
   LOCATION L0004293     VOLUME   478284.624 3746849.463 447.73
   LOCATION L0004294     VOLUME   478284.721 3746840.964 447.58
   LOCATION L0004295     VOLUME   478284.819 3746832.464 447.44
   LOCATION L0004296     VOLUME   478284.917 3746823.965 447.30
   LOCATION L0004297     VOLUME   478285.014 3746815.465 447.15
   LOCATION L0004298     VOLUME   478285.112 3746806.966 447.01
   LOCATION L0004299     VOLUME   478285.210 3746798.467 447.00
   LOCATION L0004300     VOLUME   478285.308 3746789.967 447.00
   LOCATION L0004301     VOLUME   478285.405 3746781.468 447.00
   LOCATION L0004302     VOLUME   478285.503 3746772.968 447.00
** End of LINE VOLUME Source ID = SLINE4
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC 5% Outbound to Grove View Road
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 5.809E-07
** Vertical Dimension = 4.00
** SZINIT = 1.86
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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** Nodes = 3
** 478283.814, 3746782.935, 447.00, 0.00, 3.95
** 478280.367, 3746965.630, 448.00, 0.00, 3.95
** 479081.812, 3746958.736, 446.00, 0.00, 3.95
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   LOCATION L0004304     VOLUME   478283.573 3746795.682 447.00
   LOCATION L0004305     VOLUME   478283.413 3746804.181 447.00
   LOCATION L0004306     VOLUME   478283.253 3746812.679 447.12
   LOCATION L0004307     VOLUME   478283.092 3746821.178 447.28
   LOCATION L0004308     VOLUME   478282.932 3746829.676 447.44
   LOCATION L0004309     VOLUME   478282.772 3746838.175 447.60
   LOCATION L0004310     VOLUME   478282.611 3746846.673 447.72
   LOCATION L0004311     VOLUME   478282.451 3746855.172 447.85
   LOCATION L0004312     VOLUME   478282.290 3746863.670 447.97
   LOCATION L0004313     VOLUME   478282.130 3746872.169 448.00
   LOCATION L0004314     VOLUME   478281.970 3746880.667 448.00
   LOCATION L0004315     VOLUME   478281.809 3746889.166 448.00
   LOCATION L0004316     VOLUME   478281.649 3746897.664 448.00
   LOCATION L0004317     VOLUME   478281.489 3746906.163 448.00
   LOCATION L0004318     VOLUME   478281.328 3746914.661 448.00
   LOCATION L0004319     VOLUME   478281.168 3746923.160 448.00
   LOCATION L0004320     VOLUME   478281.008 3746931.658 448.00
   LOCATION L0004321     VOLUME   478280.847 3746940.157 448.00
   LOCATION L0004322     VOLUME   478280.687 3746948.655 448.00
   LOCATION L0004323     VOLUME   478280.527 3746957.154 448.00
   LOCATION L0004324     VOLUME   478280.389 3746965.630 448.00
   LOCATION L0004325     VOLUME   478288.889 3746965.556 448.00
   LOCATION L0004326     VOLUME   478297.388 3746965.483 448.00
   LOCATION L0004327     VOLUME   478305.888 3746965.410 448.00
   LOCATION L0004328     VOLUME   478314.388 3746965.337 448.00
   LOCATION L0004329     VOLUME   478322.888 3746965.264 448.00
   LOCATION L0004330     VOLUME   478331.387 3746965.191 448.00
   LOCATION L0004331     VOLUME   478339.887 3746965.118 448.00
   LOCATION L0004332     VOLUME   478348.387 3746965.045 448.00
   LOCATION L0004333     VOLUME   478356.886 3746964.972 448.00
   LOCATION L0004334     VOLUME   478365.386 3746964.898 447.87
   LOCATION L0004335     VOLUME   478373.886 3746964.825 447.67
   LOCATION L0004336     VOLUME   478382.385 3746964.752 447.46
   LOCATION L0004337     VOLUME   478390.885 3746964.679 447.27
   LOCATION L0004338     VOLUME   478399.385 3746964.606 447.19
   LOCATION L0004339     VOLUME   478407.884 3746964.533 447.11
   LOCATION L0004340     VOLUME   478416.384 3746964.460 447.03
   LOCATION L0004341     VOLUME   478424.884 3746964.387 447.00
   LOCATION L0004342     VOLUME   478433.383 3746964.313 447.00
   LOCATION L0004343     VOLUME   478441.883 3746964.240 447.00
   LOCATION L0004344     VOLUME   478450.383 3746964.167 447.00
   LOCATION L0004345     VOLUME   478458.882 3746964.094 447.00
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   LOCATION L0004348     VOLUME   478484.382 3746963.875 447.00
   LOCATION L0004349     VOLUME   478492.881 3746963.802 447.00
   LOCATION L0004350     VOLUME   478501.381 3746963.729 447.00
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   LOCATION L0004352     VOLUME   478518.380 3746963.582 447.00
   LOCATION L0004353     VOLUME   478526.880 3746963.509 447.00
   LOCATION L0004354     VOLUME   478535.380 3746963.436 447.00
   LOCATION L0004355     VOLUME   478543.879 3746963.363 447.00
   LOCATION L0004356     VOLUME   478552.379 3746963.290 447.00
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   LOCATION L0004360     VOLUME   478586.378 3746962.997 447.00
   LOCATION L0004361     VOLUME   478594.877 3746962.924 447.00
   LOCATION L0004362     VOLUME   478603.377 3746962.851 447.00
   LOCATION L0004363     VOLUME   478611.877 3746962.778 447.00
   LOCATION L0004364     VOLUME   478620.376 3746962.705 447.00
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                  Residential
   LOCATION L0004365     VOLUME   478628.876 3746962.632 447.00
   LOCATION L0004366     VOLUME   478637.376 3746962.559 447.00
   LOCATION L0004367     VOLUME   478645.876 3746962.486 447.00
   LOCATION L0004368     VOLUME   478654.375 3746962.412 447.00
   LOCATION L0004369     VOLUME   478662.875 3746962.339 446.92
   LOCATION L0004370     VOLUME   478671.375 3746962.266 446.69
   LOCATION L0004371     VOLUME   478679.874 3746962.193 446.47
   LOCATION L0004372     VOLUME   478688.374 3746962.120 446.24
   LOCATION L0004373     VOLUME   478696.874 3746962.047 446.19
   LOCATION L0004374     VOLUME   478705.373 3746961.974 446.19
   LOCATION L0004375     VOLUME   478713.873 3746961.901 446.19
   LOCATION L0004376     VOLUME   478722.373 3746961.828 446.17
   LOCATION L0004377     VOLUME   478730.872 3746961.754 446.12
   LOCATION L0004378     VOLUME   478739.372 3746961.681 446.06
   LOCATION L0004379     VOLUME   478747.872 3746961.608 446.01
   LOCATION L0004380     VOLUME   478756.371 3746961.535 446.00
   LOCATION L0004381     VOLUME   478764.871 3746961.462 446.00
   LOCATION L0004382     VOLUME   478773.371 3746961.389 446.00
   LOCATION L0004383     VOLUME   478781.871 3746961.316 446.00
   LOCATION L0004384     VOLUME   478790.370 3746961.243 446.00
   LOCATION L0004385     VOLUME   478798.870 3746961.170 446.00
   LOCATION L0004386     VOLUME   478807.370 3746961.096 446.00
   LOCATION L0004387     VOLUME   478815.869 3746961.023 446.00
   LOCATION L0004388     VOLUME   478824.369 3746960.950 446.00
   LOCATION L0004389     VOLUME   478832.869 3746960.877 446.00
   LOCATION L0004390     VOLUME   478841.368 3746960.804 446.00
   LOCATION L0004391     VOLUME   478849.868 3746960.731 446.00
   LOCATION L0004392     VOLUME   478858.368 3746960.658 446.00
   LOCATION L0004393     VOLUME   478866.867 3746960.585 446.00
   LOCATION L0004394     VOLUME   478875.367 3746960.511 446.00
   LOCATION L0004395     VOLUME   478883.867 3746960.438 446.00
   LOCATION L0004396     VOLUME   478892.366 3746960.365 446.00
   LOCATION L0004397     VOLUME   478900.866 3746960.292 446.00
   LOCATION L0004398     VOLUME   478909.366 3746960.219 446.00
   LOCATION L0004399     VOLUME   478917.865 3746960.146 446.00
   LOCATION L0004400     VOLUME   478926.365 3746960.073 446.00
   LOCATION L0004401     VOLUME   478934.865 3746960.000 446.00
   LOCATION L0004402     VOLUME   478943.365 3746959.927 446.00
   LOCATION L0004403     VOLUME   478951.864 3746959.853 446.00
   LOCATION L0004404     VOLUME   478960.364 3746959.780 446.00
   LOCATION L0004405     VOLUME   478968.864 3746959.707 446.00
   LOCATION L0004406     VOLUME   478977.363 3746959.634 446.00
   LOCATION L0004407     VOLUME   478985.863 3746959.561 446.00
   LOCATION L0004408     VOLUME   478994.363 3746959.488 446.00
   LOCATION L0004409     VOLUME   479002.862 3746959.415 446.00
   LOCATION L0004410     VOLUME   479011.362 3746959.342 446.00
   LOCATION L0004411     VOLUME   479019.862 3746959.269 446.00
   LOCATION L0004412     VOLUME   479028.361 3746959.195 446.00
   LOCATION L0004413     VOLUME   479036.861 3746959.122 446.00
   LOCATION L0004414     VOLUME   479045.361 3746959.049 446.00
   LOCATION L0004415     VOLUME   479053.860 3746958.976 446.00
   LOCATION L0004416     VOLUME   479062.360 3746958.903 446.00
   LOCATION L0004417     VOLUME   479070.860 3746958.830 446.00
   LOCATION L0004418     VOLUME   479079.360 3746958.757 446.00
** End of LINE VOLUME Source ID = SLINE5
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00005093
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477923.678, 3746810.357, 448.00, 0.00, 3.95
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** 478177.247, 3746809.187, 448.00, 0.00, 3.95
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   LOCATION L0004419     VOLUME   477927.928 3746810.338 448.00
   LOCATION L0004420     VOLUME   477936.428 3746810.298 448.00
   LOCATION L0004421     VOLUME   477944.928 3746810.259 448.00
   LOCATION L0004422     VOLUME   477953.428 3746810.220 448.00
   LOCATION L0004423     VOLUME   477961.928 3746810.181 448.00
   LOCATION L0004424     VOLUME   477970.428 3746810.142 448.00
   LOCATION L0004425     VOLUME   477978.928 3746810.102 448.00
   LOCATION L0004426     VOLUME   477987.428 3746810.063 448.00
   LOCATION L0004427     VOLUME   477995.928 3746810.024 448.00
   LOCATION L0004428     VOLUME   478004.428 3746809.985 448.00
   LOCATION L0004429     VOLUME   478012.927 3746809.946 448.00
   LOCATION L0004430     VOLUME   478021.427 3746809.906 448.00
   LOCATION L0004431     VOLUME   478029.927 3746809.867 448.00
   LOCATION L0004432     VOLUME   478038.427 3746809.828 448.00
   LOCATION L0004433     VOLUME   478046.927 3746809.789 448.00
   LOCATION L0004434     VOLUME   478055.427 3746809.749 448.00
   LOCATION L0004435     VOLUME   478063.927 3746809.710 448.00
   LOCATION L0004436     VOLUME   478072.427 3746809.671 448.00
   LOCATION L0004437     VOLUME   478080.927 3746809.632 448.00
   LOCATION L0004438     VOLUME   478089.427 3746809.593 448.00
   LOCATION L0004439     VOLUME   478097.927 3746809.553 448.00
   LOCATION L0004440     VOLUME   478106.426 3746809.514 448.00
   LOCATION L0004441     VOLUME   478114.926 3746809.475 448.00
   LOCATION L0004442     VOLUME   478123.426 3746809.436 448.00
   LOCATION L0004443     VOLUME   478131.926 3746809.396 448.00
   LOCATION L0004444     VOLUME   478140.426 3746809.357 448.00
   LOCATION L0004445     VOLUME   478148.926 3746809.318 448.00
   LOCATION L0004446     VOLUME   478157.426 3746809.279 448.00
   LOCATION L0004447     VOLUME   478165.926 3746809.240 448.00
   LOCATION L0004448     VOLUME   478174.426 3746809.200 448.00
** End of LINE VOLUME Source ID = SLINE6
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001639
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
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** 478177.349, 3746791.961, 448.00, 0.00, 3.95
** 477890.952, 3746791.463, 448.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0004449     VOLUME   478266.824 3746792.198 447.05
   LOCATION L0004450     VOLUME   478258.324 3746792.175 447.21
   LOCATION L0004451     VOLUME   478249.824 3746792.153 447.36
   LOCATION L0004452     VOLUME   478241.324 3746792.130 447.51
   LOCATION L0004453     VOLUME   478232.824 3746792.108 447.64
   LOCATION L0004454     VOLUME   478224.325 3746792.085 447.77
   LOCATION L0004455     VOLUME   478215.825 3746792.063 447.91
   LOCATION L0004456     VOLUME   478207.325 3746792.040 448.00
   LOCATION L0004457     VOLUME   478198.825 3746792.018 448.00
   LOCATION L0004458     VOLUME   478190.325 3746791.995 448.00
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   LOCATION L0004461     VOLUME   478164.825 3746791.939 448.00
   LOCATION L0004462     VOLUME   478156.325 3746791.924 448.00
   LOCATION L0004463     VOLUME   478147.825 3746791.909 448.00
   LOCATION L0004464     VOLUME   478139.325 3746791.895 448.00
   LOCATION L0004465     VOLUME   478130.825 3746791.880 448.00
   LOCATION L0004466     VOLUME   478122.325 3746791.865 448.00
   LOCATION L0004467     VOLUME   478113.825 3746791.850 448.00
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                Residential
   LOCATION L0004468     VOLUME   478105.325 3746791.836 448.00
   LOCATION L0004469     VOLUME   478096.825 3746791.821 448.00
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   LOCATION L0004471     VOLUME   478079.825 3746791.791 448.00
   LOCATION L0004472     VOLUME   478071.325 3746791.777 448.00
   LOCATION L0004473     VOLUME   478062.825 3746791.762 448.00
   LOCATION L0004474     VOLUME   478054.325 3746791.747 448.00
   LOCATION L0004475     VOLUME   478045.825 3746791.732 448.00
   LOCATION L0004476     VOLUME   478037.325 3746791.717 448.00
   LOCATION L0004477     VOLUME   478028.825 3746791.703 448.00
   LOCATION L0004478     VOLUME   478020.325 3746791.688 448.00
   LOCATION L0004479     VOLUME   478011.825 3746791.673 448.00
   LOCATION L0004480     VOLUME   478003.325 3746791.658 448.00
   LOCATION L0004481     VOLUME   477994.825 3746791.644 448.00
   LOCATION L0004482     VOLUME   477986.325 3746791.629 448.00
   LOCATION L0004483     VOLUME   477977.825 3746791.614 448.00
   LOCATION L0004484     VOLUME   477969.325 3746791.599 448.00
   LOCATION L0004485     VOLUME   477960.825 3746791.585 448.00
   LOCATION L0004486     VOLUME   477952.325 3746791.570 448.00
   LOCATION L0004487     VOLUME   477943.825 3746791.555 448.00
   LOCATION L0004488     VOLUME   477935.325 3746791.540 448.00
   LOCATION L0004489     VOLUME   477926.825 3746791.526 448.00
   LOCATION L0004490     VOLUME   477918.325 3746791.511 448.00
   LOCATION L0004491     VOLUME   477909.825 3746791.496 448.00
   LOCATION L0004492     VOLUME   477901.325 3746791.481 448.00
   LOCATION L0004493     VOLUME   477892.825 3746791.467 448.00
** End of LINE VOLUME Source ID = SLINE7
   LOCATION STCK1        POINT      477935.000  3746812.710      448.000
** DESCRSRC TRU Idling
   LOCATION STCK2        POINT      477996.522  3746810.249      448.000
** DESCRSRC TRU Idling
   LOCATION STCK3        POINT      478082.653  3746811.233      448.000
** DESCRSRC TRU Idling
   LOCATION STCK4        POINT      478157.955  3746809.757      448.000
** DESCRSRC TRU Idling
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
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   SRCPARAM L0003184     0.00000009526      0.00      3.95      1.86
   SRCPARAM L0003185     0.00000009526      0.00      3.95      1.86
   SRCPARAM L0003186     0.00000009526      0.00      3.95      1.86
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   SRCPARAM L0003193     0.00000009526      0.00      3.95      1.86
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   SRCPARAM L0003195     0.00000009526      0.00      3.95      1.86
   SRCPARAM L0003196     0.00000009526      0.00      3.95      1.86
   SRCPARAM L0003197     0.00000009526      0.00      3.95      1.86
   SRCPARAM L0003198     0.00000009526      0.00      3.95      1.86
   SRCPARAM L0003199     0.00000009526      0.00      3.95      1.86
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   SRCPARAM L0003201     0.00000009526      0.00      3.95      1.86
   SRCPARAM L0003202     0.00000009526      0.00      3.95      1.86
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   SRCPARAM L0003207     0.00000009526      0.00      3.95      1.86
   SRCPARAM L0003208     0.00000009526      0.00      3.95      1.86
   SRCPARAM L0003209     0.00000009526      0.00      3.95      1.86
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   SRCPARAM L0003211     0.00000009526      0.00      3.95      1.86
   SRCPARAM L0003212     0.00000009526      0.00      3.95      1.86
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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SRCPARAM L0003213     0.00000009526      0.00       3.95       1.86
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SRCPARAM L0003217     0.00000009526      0.00       3.95       1.86
SRCPARAM L0003218     0.00000009526      0.00       3.95       1.86
SRCPARAM L0003219     0.00000009526      0.00       3.95       1.86
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SRCPARAM L0003221     0.00000009526      0.00       3.95       1.86
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SRCPARAM L0003476     0.00000009526      0.00       3.95       1.86
SRCPARAM L0003477     0.00000009526      0.00       3.95       1.86
SRCPARAM L0003478     0.00000009526      0.00       3.95       1.86
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SRCPARAM L0003480     0.00000009526      0.00       3.95       1.86
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   SRCPARAM L0003483     0.00000009526      0.00      3.95      1.86
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   SRCPARAM L0003485     0.00000009526      0.00      3.95      1.86
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SRCPARAM	L0003755	0.00000009023	0.00	3.95	1.86
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SRCPARAM	L0003760	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003761	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003762	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003763	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003764	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003765	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003766	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003767	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003768	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003769	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003770	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003771	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003772	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003773	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003774	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003775	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003776	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003777	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003778	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003779	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003780	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003781	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003782	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003783	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003784	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003785	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003786	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003787	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003788	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003789	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003790	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003791	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003792	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003793	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003794	0.00000009023	0.00	3.95	1.86
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SRCPARAM	L0003797	0.00000009023	0.00	3.95	1.86
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SRCPARAM	L0003799	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003800	0.00000009023	0.00	3.95	1.86
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SRCPARAM	L0003810	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003811	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003812	0.00000009023	0.00	3.95	1.86
SRCPARAM	L0003813	0.00000009023	0.00	3.95	1.86

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   SRCPARAM L0003821     0.00000009023      0.00      3.95      1.86
   SRCPARAM L0003822     0.00000009023      0.00      3.95      1.86
   SRCPARAM L0003823     0.00000009023      0.00      3.95      1.86
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   SRCPARAM L0003825     0.00000009023      0.00      3.95      1.86
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   SRCPARAM L0003839     0.00000009023      0.00      3.95      1.86
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   SRCPARAM L0003841     0.00000009023      0.00      3.95      1.86
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   SRCPARAM L0003847     0.00000009023      0.00      3.95      1.86
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   SRCPARAM L0003849     0.00000009023      0.00      3.95      1.86
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   SRCPARAM L0003852     0.00000009023      0.00      3.95      1.86
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   SRCPARAM L0003873     0.00000009023      0.00      3.95      1.86
   SRCPARAM L0003874     0.00000009023      0.00      3.95      1.86
   SRCPARAM L0003875     0.00000009023      0.00      3.95      1.86
   SRCPARAM L0003876     0.00000009023      0.00      3.95      1.86
   SRCPARAM L0003877     0.00000009023      0.00      3.95      1.86
   SRCPARAM L0003878     0.00000009023      0.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE3
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SRCPARAM L0003882     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003883     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003884     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003885     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003886     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003887     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003888     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003889     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003890     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003891     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003892     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003893     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003894     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003895     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003896     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003897     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003898     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003899     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003900     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003901     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003902     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003903     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003904     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003905     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0003907     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003908     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0003912     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003913     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003914     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003915     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003916     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003917     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0003919     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003920     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003921     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003922     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003923     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0003926     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0003932     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003933     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0003938     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003939     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0003941     0.000000005028      0.00       3.95       1.86
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                                                Residential
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SRCPARAM L0003949     0.000000005028      0.00       3.95       1.86
SRCPARAM L0003950     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0003955     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0003958     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0003963     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0003965     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0003967     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0003969     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0003971     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0004025     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0004039     0.000000005028      0.00       3.95       1.86
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SRCPARAM L0004043     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004044     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004045     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004046     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004047     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004048     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004049     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004050     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004051     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004052     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004053     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004054     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004055     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004056     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004057     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004058     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004059     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004060     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004061     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004062     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004063     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004064     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004065     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004066     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004067     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004068     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004069     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004070     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004071     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004072     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004073     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004074     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004075     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004076     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004077     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004078     0.000000005028      0.00       3.95       1.86
SRCPARAM L0004079     0.000000005028      0.00       3.95       1.86
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                                                  Residential
   SRCPARAM L0004080     0.000000005028      0.00       3.95      1.86
   SRCPARAM L0004081     0.000000005028      0.00       3.95      1.86
   SRCPARAM L0004082     0.000000005028      0.00       3.95      1.86
   SRCPARAM L0004083     0.000000005028      0.00       3.95      1.86
   SRCPARAM L0004084     0.000000005028      0.00       3.95      1.86
   SRCPARAM L0004085     0.000000005028      0.00       3.95      1.86
   SRCPARAM L0004086     0.000000005028      0.00       3.95      1.86
   SRCPARAM L0004087     0.000000005028      0.00       3.95      1.86
   SRCPARAM L0004088     0.000000005028      0.00       3.95      1.86
   SRCPARAM L0004089     0.000000005028      0.00       3.95      1.86
   SRCPARAM L0004090     0.000000005028      0.00       3.95      1.86
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** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0004091     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004092     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004093     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004094     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004095     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004096     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004097     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004098     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004099     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004100     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004101     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004102     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004103     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004104     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004105     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004106     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004107     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004108     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004109     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004110     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004111     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004112     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004113     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004114     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004115     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004116     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004117     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004118     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004119     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004120     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004121     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004122     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004123     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004124     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004125     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004126     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004127     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004128     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004129     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004130     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004131     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004132     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004133     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004134     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004135     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004136     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004137     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004138     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004139     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004140     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004141     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004142     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004143     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004144     0.00000001462      0.00      3.95      1.86
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                                                Residential
SRCPARAM L0004145     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004146     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004147     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004148     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004149     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004150     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004151     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004152     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004153     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004154     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004155     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004156     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004157     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004158     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004159     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004160     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004161     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004162     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004163     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004164     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004165     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004166     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004167     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004168     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004169     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004170     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004171     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004172     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004173     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004174     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004175     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004176     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004177     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004178     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004179     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004180     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004181     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004182     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004183     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004184     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004185     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004186     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004187     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004188     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004189     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004190     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004191     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004192     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004193     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004194     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004195     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004196     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004197     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004198     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004199     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004200     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004201     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004202     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004203     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004204     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004205     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004206     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004207     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004208     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004209     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004210     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004211     0.00000001462      0.00      3.95      1.86
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                                                Residential
SRCPARAM L0004212     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004213     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004214     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004215     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004216     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004217     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004218     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004219     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004220     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004221     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004222     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004223     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004224     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004225     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004226     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004227     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004228     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004229     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004230     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004231     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004232     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004233     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004234     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004235     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004236     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004237     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004238     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004239     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004240     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004241     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004242     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004243     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004244     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004245     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004246     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004247     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004248     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004249     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004250     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004251     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004252     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004253     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004254     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004255     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004256     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004257     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004258     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004259     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004260     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004261     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004262     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004263     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004264     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004265     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004266     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004267     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004268     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004269     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004270     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004271     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004272     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004273     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004274     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004275     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004276     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004277     0.00000001462      0.00      3.95      1.86
SRCPARAM L0004278     0.00000001462      0.00      3.95      1.86
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                                                  Residential
   SRCPARAM L0004279     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004280     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004281     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004282     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004283     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004284     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004285     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004286     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004287     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004288     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004289     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004290     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004291     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004292     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004293     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004294     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004295     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004296     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004297     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004298     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004299     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004300     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004301     0.00000001462      0.00      3.95      1.86
   SRCPARAM L0004302     0.00000001462      0.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0004303     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004304     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004305     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004306     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004307     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004308     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004309     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004310     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004311     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004312     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004313     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004314     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004315     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004316     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004317     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004318     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004319     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004320     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004321     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004322     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004323     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004324     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004325     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004326     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004327     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004328     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004329     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004330     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004331     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004332     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004333     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004334     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004335     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004336     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004337     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004338     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004339     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004340     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004341     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004342     0.000000005008      0.00      3.95      1.86
   SRCPARAM L0004343     0.000000005008      0.00      3.95      1.86
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SRCPARAM	L0004344	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004345	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004346	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004347	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004348	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004349	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004350	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004351	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004352	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004353	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004354	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004355	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004356	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004357	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004358	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004359	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004360	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004361	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004362	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004363	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004364	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004365	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004366	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004367	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004368	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004369	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004370	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004371	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004372	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004373	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004374	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004375	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004376	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004377	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004378	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004379	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004380	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004381	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004382	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004383	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004384	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004385	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004386	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004387	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004388	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004389	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004390	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004391	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004392	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004393	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004394	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004395	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004396	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004397	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004398	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004399	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004400	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004401	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004402	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004403	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004404	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004405	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004406	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004407	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004408	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004409	0.000000005008	0.00	3.95	1.86
SRCPARAM	L0004410	0.000000005008	0.00	3.95	1.86

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                  Residential
   SRCPARAM L0004411     0.000000005008      0.00       3.95       1.86
   SRCPARAM L0004412     0.000000005008      0.00       3.95       1.86
   SRCPARAM L0004413     0.000000005008      0.00       3.95       1.86
   SRCPARAM L0004414     0.000000005008      0.00       3.95       1.86
   SRCPARAM L0004415     0.000000005008      0.00       3.95       1.86
   SRCPARAM L0004416     0.000000005008      0.00       3.95       1.86
   SRCPARAM L0004417     0.000000005008      0.00       3.95       1.86
   SRCPARAM L0004418     0.000000005008      0.00       3.95       1.86
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0004419     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004420     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004421     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004422     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004423     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004424     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004425     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004426     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004427     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004428     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004429     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004430     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004431     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004432     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004433     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004434     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004435     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004436     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004437     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004438     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004439     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004440     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004441     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004442     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004443     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004444     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004445     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004446     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004447     0.000001698      0.00       3.95       1.86
   SRCPARAM L0004448     0.000001698      0.00       3.95       1.86
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0004449     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004450     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004451     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004452     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004453     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004454     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004455     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004456     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004457     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004458     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004459     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004460     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004461     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004462     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004463     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004464     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004465     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004466     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004467     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004468     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004469     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004470     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004471     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004472     0.0000003642      0.00       3.95       1.86
   SRCPARAM L0004473     0.0000003642      0.00       3.95       1.86
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                                                Residential
   SRCPARAM L0004474     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004475     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004476     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004477     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004478     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004479     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004480     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004481     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004482     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004483     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004484     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004485     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004486     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004487     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004488     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004489     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004490     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004491     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004492     0.0000003642      0.00      3.95      1.86
   SRCPARAM L0004493     0.0000003642      0.00      3.95      1.86
** ------------------------------------------------------------------
   SRCPARAM STCK1        0.000020856     3.960   501.000  49.98300     0.044
   SRCPARAM STCK2        0.000020856     3.960   501.000  49.98300     0.044
   SRCPARAM STCK3        0.000020856     3.960   501.000  49.98300     0.044
   SRCPARAM STCK4        0.000020856     3.960   501.000  49.98300     0.044
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED Residential.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\peri8.sfc
   PROFFILE ..\peri8.PFL
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL RESIDENTIAL.AD\AN00GALL.PLT 31
   SUMMFILE Residential.sum
OU FINISHED

 *********************************
 *** SETUP Finishes Successfully ***
 *********************************
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 11:01:54

PAGE 1
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** MODEL SETUP OPTIONS SUMMARY ***

- - - -

Residential
0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 4.1 MB of RAM.

**Detailed Error/Message File: Residential.err

**File for Summary of Results: Residential.sum

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR VARY BY	EMIS RATE SCALAR
STCK1	0	0.20856E-04	477935.0	3746812.7	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	
STCK2	0	0.20856E-04	477996.5	3746810.2	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	
STCK3	0	0.20856E-04	478082.7	3746811.2	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	
STCK4	0	0.20856E-04	478158.0	3746809.8	448.0	3.96	501.00	49.98	0.04	NO	YES	NO	

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003183	0	0.95260E-07	478284.5	3746785.9	447.0	0.00	3.95	1.86	YES	
L0003184	0	0.95260E-07	478284.5	3746777.4	447.0	0.00	3.95	1.86	YES	
L0003185	0	0.95260E-07	478284.6	3746768.9	447.0	0.00	3.95	1.86	YES	
L0003186	0	0.95260E-07	478284.6	3746760.4	447.0	0.00	3.95	1.86	YES	
L0003187	0	0.95260E-07	478284.6	3746751.9	447.0	0.00	3.95	1.86	YES	
L0003188	0	0.95260E-07	478284.7	3746743.4	447.0	0.00	3.95	1.86	YES	
L0003189	0	0.95260E-07	478284.7	3746734.9	447.0	0.00	3.95	1.86	YES	
L0003190	0	0.95260E-07	478284.7	3746726.4	447.0	0.00	3.95	1.86	YES	
L0003191	0	0.95260E-07	478284.8	3746717.9	447.0	0.00	3.95	1.86	YES	
L0003192	0	0.95260E-07	478284.8	3746709.4	447.0	0.00	3.95	1.86	YES	
L0003193	0	0.95260E-07	478284.8	3746700.9	447.0	0.00	3.95	1.86	YES	
L0003194	0	0.95260E-07	478284.9	3746692.4	447.0	0.00	3.95	1.86	YES	
L0003195	0	0.95260E-07	478284.9	3746683.9	447.0	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

L0003196	0	0.95260E-07	478284.9	3746675.4	447.0	0.00	3.95	1.86	YES
L0003197	0	0.95260E-07	478284.9	3746666.9	447.0	0.00	3.95	1.86	YES
L0003198	0	0.95260E-07	478285.0	3746658.4	447.0	0.00	3.95	1.86	YES
L0003199	0	0.95260E-07	478285.0	3746649.9	447.0	0.00	3.95	1.86	YES
L0003200	0	0.95260E-07	478285.0	3746641.4	447.0	0.00	3.95	1.86	YES
L0003201	0	0.95260E-07	478285.1	3746632.9	447.0	0.00	3.95	1.86	YES
L0003202	0	0.95260E-07	478285.1	3746624.4	447.0	0.00	3.95	1.86	YES
L0003203	0	0.95260E-07	478285.1	3746615.9	447.0	0.00	3.95	1.86	YES
L0003204	0	0.95260E-07	478285.2	3746607.4	447.0	0.00	3.95	1.86	YES
L0003205	0	0.95260E-07	478285.2	3746598.9	447.0	0.00	3.95	1.86	YES
L0003206	0	0.95260E-07	478285.2	3746590.4	447.0	0.00	3.95	1.86	YES
L0003207	0	0.95260E-07	478285.3	3746581.9	447.0	0.00	3.95	1.86	YES
L0003208	0	0.95260E-07	478285.3	3746573.4	447.0	0.00	3.95	1.86	YES
L0003209	0	0.95260E-07	478285.3	3746564.9	447.0	0.00	3.95	1.86	YES
L0003210	0	0.95260E-07	478285.3	3746556.4	447.0	0.00	3.95	1.86	YES
L0003211	0	0.95260E-07	478285.4	3746547.9	447.0	0.00	3.95	1.86	YES
L0003212	0	0.95260E-07	478285.4	3746539.4	447.0	0.00	3.95	1.86	YES
L0003213	0	0.95260E-07	478285.4	3746530.9	447.0	0.00	3.95	1.86	YES
L0003214	0	0.95260E-07	478285.5	3746522.4	447.0	0.00	3.95	1.86	YES
L0003215	0	0.95260E-07	478285.5	3746513.9	447.0	0.00	3.95	1.86	YES
L0003216	0	0.95260E-07	478285.5	3746505.4	447.0	0.00	3.95	1.86	YES
L0003217	0	0.95260E-07	478285.6	3746496.9	447.0	0.00	3.95	1.86	YES
L0003218	0	0.95260E-07	478285.6	3746488.4	447.0	0.00	3.95	1.86	YES
L0003219	0	0.95260E-07	478285.6	3746479.9	447.0	0.00	3.95	1.86	YES
L0003220	0	0.95260E-07	478285.7	3746471.4	447.0	0.00	3.95	1.86	YES
L0003221	0	0.95260E-07	478285.7	3746462.9	447.0	0.00	3.95	1.86	YES
L0003222	0	0.95260E-07	478285.7	3746454.4	447.0	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003223	0	0.95260E-07	478285.8	3746445.9	447.0	0.00	3.95	1.86	YES	
L0003224	0	0.95260E-07	478285.8	3746437.4	446.8	0.00	3.95	1.86	YES	
L0003225	0	0.95260E-07	478285.8	3746428.9	446.7	0.00	3.95	1.86	YES	
L0003226	0	0.95260E-07	478285.8	3746420.4	446.5	0.00	3.95	1.86	YES	
L0003227	0	0.95260E-07	478285.9	3746411.9	446.5	0.00	3.95	1.86	YES	
L0003228	0	0.95260E-07	478285.9	3746403.4	446.5	0.00	3.95	1.86	YES	
L0003229	0	0.95260E-07	478285.9	3746394.9	446.5	0.00	3.95	1.86	YES	
L0003230	0	0.95260E-07	478286.0	3746386.4	446.5	0.00	3.95	1.86	YES	
L0003231	0	0.95260E-07	478286.0	3746377.9	446.5	0.00	3.95	1.86	YES	
L0003232	0	0.95260E-07	478286.0	3746369.4	446.5	0.00	3.95	1.86	YES	
L0003233	0	0.95260E-07	478286.1	3746360.9	446.5	0.00	3.95	1.86	YES	
L0003234	0	0.95260E-07	478284.4	3746354.1	446.5	0.00	3.95	1.86	YES	
L0003235	0	0.95260E-07	478275.9	3746354.1	446.8	0.00	3.95	1.86	YES	
L0003236	0	0.95260E-07	478267.4	3746354.2	447.0	0.00	3.95	1.86	YES	
L0003237	0	0.95260E-07	478258.9	3746354.2	447.0	0.00	3.95	1.86	YES	
L0003238	0	0.95260E-07	478250.4	3746354.3	447.0	0.00	3.95	1.86	YES	
L0003239	0	0.95260E-07	478241.9	3746354.3	447.0	0.00	3.95	1.86	YES	
L0003240	0	0.95260E-07	478233.4	3746354.4	447.0	0.00	3.95	1.86	YES	
L0003241	0	0.95260E-07	478224.9	3746354.4	447.0	0.00	3.95	1.86	YES	
L0003242	0	0.95260E-07	478216.4	3746354.4	447.0	0.00	3.95	1.86	YES	
L0003243	0	0.95260E-07	478207.9	3746354.5	447.0	0.00	3.95	1.86	YES	
L0003244	0	0.95260E-07	478199.4	3746354.5	447.0	0.00	3.95	1.86	YES	
L0003245	0	0.95260E-07	478190.9	3746354.6	447.0	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0003246	0	0.95260E-07	478182.4	3746354.6	447.0	0.00	3.95	1.86	YES
L0003247	0	0.95260E-07	478173.9	3746354.6	447.0	0.00	3.95	1.86	YES
L0003248	0	0.95260E-07	478165.4	3746354.7	447.0	0.00	3.95	1.86	YES
L0003249	0	0.95260E-07	478156.9	3746354.7	447.0	0.00	3.95	1.86	YES
L0003250	0	0.95260E-07	478148.4	3746354.8	447.0	0.00	3.95	1.86	YES
L0003251	0	0.95260E-07	478139.9	3746354.8	447.0	0.00	3.95	1.86	YES
L0003252	0	0.95260E-07	478131.4	3746354.9	447.0	0.00	3.95	1.86	YES
L0003253	0	0.95260E-07	478122.9	3746354.9	447.0	0.00	3.95	1.86	YES
L0003254	0	0.95260E-07	478114.4	3746354.9	447.0	0.00	3.95	1.86	YES
L0003255	0	0.95260E-07	478105.9	3746355.0	447.0	0.00	3.95	1.86	YES
L0003256	0	0.95260E-07	478097.4	3746355.0	447.0	0.00	3.95	1.86	YES
L0003257	0	0.95260E-07	478088.9	3746355.1	447.0	0.00	3.95	1.86	YES
L0003258	0	0.95260E-07	478080.4	3746355.1	447.0	0.00	3.95	1.86	YES
L0003259	0	0.95260E-07	478071.9	3746355.2	447.0	0.00	3.95	1.86	YES
L0003260	0	0.95260E-07	478063.4	3746355.2	447.0	0.00	3.95	1.86	YES
L0003261	0	0.95260E-07	478054.9	3746355.2	447.0	0.00	3.95	1.86	YES
L0003262	0	0.95260E-07	478046.4	3746355.3	447.0	0.00	3.95	1.86	YES

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 11:01:54

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003263	0	0.95260E-07	478037.9	3746355.3	447.0	0.00	3.95	1.86	YES	
L0003264	0	0.95260E-07	478029.4	3746355.4	447.0	0.00	3.95	1.86	YES	
L0003265	0	0.95260E-07	478020.9	3746355.4	447.0	0.00	3.95	1.86	YES	
L0003266	0	0.95260E-07	478012.4	3746355.5	447.0	0.00	3.95	1.86	YES	
L0003267	0	0.95260E-07	478003.9	3746355.5	447.0	0.00	3.95	1.86	YES	
L0003268	0	0.95260E-07	477995.4	3746355.5	447.0	0.00	3.95	1.86	YES	
L0003269	0	0.95260E-07	477986.9	3746355.6	447.0	0.00	3.95	1.86	YES	
L0003270	0	0.95260E-07	477978.4	3746355.6	447.0	0.00	3.95	1.86	YES	
L0003271	0	0.95260E-07	477969.9	3746355.7	447.0	0.00	3.95	1.86	YES	
L0003272	0	0.95260E-07	477961.4	3746355.7	447.0	0.00	3.95	1.86	YES	
L0003273	0	0.95260E-07	477952.9	3746355.8	447.0	0.00	3.95	1.86	YES	
L0003274	0	0.95260E-07	477944.4	3746355.8	447.0	0.00	3.95	1.86	YES	
L0003275	0	0.95260E-07	477935.9	3746355.8	447.1	0.00	3.95	1.86	YES	
L0003276	0	0.95260E-07	477927.4	3746355.9	447.4	0.00	3.95	1.86	YES	
L0003277	0	0.95260E-07	477918.9	3746355.9	447.7	0.00	3.95	1.86	YES	
L0003278	0	0.95260E-07	477910.4	3746356.0	448.0	0.00	3.95	1.86	YES	
L0003279	0	0.95260E-07	477901.9	3746356.0	448.0	0.00	3.95	1.86	YES	
L0003280	0	0.95260E-07	477893.4	3746356.1	448.0	0.00	3.95	1.86	YES	
L0003281	0	0.95260E-07	477884.9	3746356.1	448.0	0.00	3.95	1.86	YES	
L0003282	0	0.95260E-07	477876.4	3746356.1	448.0	0.00	3.95	1.86	YES	
L0003283	0	0.95260E-07	477867.9	3746356.2	448.0	0.00	3.95	1.86	YES	
L0003284	0	0.95260E-07	477859.4	3746356.2	448.0	0.00	3.95	1.86	YES	
L0003285	0	0.95260E-07	477850.9	3746356.3	448.0	0.00	3.95	1.86	YES	
L0003286	0	0.95260E-07	477842.4	3746356.3	448.0	0.00	3.95	1.86	YES	
L0003287	0	0.95260E-07	477833.9	3746356.4	448.0	0.00	3.95	1.86	YES	
L0003288	0	0.95260E-07	477825.4	3746356.4	448.0	0.00	3.95	1.86	YES	
L0003289	0	0.95260E-07	477816.9	3746356.4	448.0	0.00	3.95	1.86	YES	
L0003290	0	0.95260E-07	477808.4	3746356.5	448.0	0.00	3.95	1.86	YES	
L0003291	0	0.95260E-07	477799.9	3746356.5	448.0	0.00	3.95	1.86	YES	
L0003292	0	0.95260E-07	477791.4	3746356.6	448.0	0.00	3.95	1.86	YES	
L0003293	0	0.95260E-07	477782.9	3746356.6	448.0	0.00	3.95	1.86	YES	
L0003294	0	0.95260E-07	477774.4	3746356.7	448.0	0.00	3.95	1.86	YES	
L0003295	0	0.95260E-07	477765.9	3746356.7	448.0	0.00	3.95	1.86	YES	

L0003296	0	0.95260E-07	477757.4	3746356.7	448.0	0.00	3.95	1.86	YES
L0003297	0	0.95260E-07	477748.9	3746356.8	448.0	0.00	3.95	1.86	YES
L0003298	0	0.95260E-07	477740.4	3746356.8	448.0	0.00	3.95	1.86	YES
L0003299	0	0.95260E-07	477731.9	3746356.9	448.0	0.00	3.95	1.86	YES
L0003300	0	0.95260E-07	477723.4	3746356.9	448.0	0.00	3.95	1.86	YES
L0003301	0	0.95260E-07	477714.9	3746357.0	448.0	0.00	3.95	1.86	YES
L0003302	0	0.95260E-07	477706.4	3746357.0	448.0	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003303	0	0.95260E-07	477697.9	3746357.0	448.0	0.00	3.95	1.86	YES	
L0003304	0	0.95260E-07	477689.4	3746357.1	448.0	0.00	3.95	1.86	YES	
L0003305	0	0.95260E-07	477680.9	3746357.1	448.0	0.00	3.95	1.86	YES	
L0003306	0	0.95260E-07	477672.4	3746357.2	448.0	0.00	3.95	1.86	YES	
L0003307	0	0.95260E-07	477663.9	3746357.2	448.0	0.00	3.95	1.86	YES	
L0003308	0	0.95260E-07	477655.4	3746357.3	448.0	0.00	3.95	1.86	YES	
L0003309	0	0.95260E-07	477646.9	3746357.3	448.0	0.00	3.95	1.86	YES	
L0003310	0	0.95260E-07	477638.4	3746357.3	448.1	0.00	3.95	1.86	YES	
L0003311	0	0.95260E-07	477629.9	3746357.4	448.3	0.00	3.95	1.86	YES	
L0003312	0	0.95260E-07	477621.4	3746357.5	448.6	0.00	3.95	1.86	YES	
L0003313	0	0.95260E-07	477612.9	3746357.7	448.9	0.00	3.95	1.86	YES	
L0003314	0	0.95260E-07	477604.4	3746357.9	449.0	0.00	3.95	1.86	YES	
L0003315	0	0.95260E-07	477595.9	3746358.1	449.0	0.00	3.95	1.86	YES	
L0003316	0	0.95260E-07	477587.4	3746358.3	449.0	0.00	3.95	1.86	YES	
L0003317	0	0.95260E-07	477578.9	3746358.4	449.0	0.00	3.95	1.86	YES	
L0003318	0	0.95260E-07	477570.4	3746358.6	449.0	0.00	3.95	1.86	YES	
L0003319	0	0.95260E-07	477561.9	3746358.8	449.0	0.00	3.95	1.86	YES	
L0003320	0	0.95260E-07	477553.4	3746359.0	449.0	0.00	3.95	1.86	YES	
L0003321	0	0.95260E-07	477544.9	3746359.2	449.0	0.00	3.95	1.86	YES	
L0003322	0	0.95260E-07	477536.4	3746359.4	449.0	0.00	3.95	1.86	YES	
L0003323	0	0.95260E-07	477527.9	3746359.6	449.0	0.00	3.95	1.86	YES	
L0003324	0	0.95260E-07	477519.4	3746359.8	449.0	0.00	3.95	1.86	YES	
L0003325	0	0.95260E-07	477510.9	3746360.0	449.0	0.00	3.95	1.86	YES	
L0003326	0	0.95260E-07	477502.4	3746360.1	449.0	0.00	3.95	1.86	YES	
L0003327	0	0.95260E-07	477493.9	3746360.3	449.0	0.00	3.95	1.86	YES	
L0003328	0	0.95260E-07	477485.4	3746360.5	449.2	0.00	3.95	1.86	YES	
L0003329	0	0.95260E-07	477476.9	3746360.8	449.4	0.00	3.95	1.86	YES	
L0003330	0	0.95260E-07	477468.8	3746363.3	449.7	0.00	3.95	1.86	YES	
L0003331	0	0.95260E-07	477460.7	3746365.9	450.0	0.00	3.95	1.86	YES	
L0003332	0	0.95260E-07	477452.6	3746368.4	450.0	0.00	3.95	1.86	YES	
L0003333	0	0.95260E-07	477444.5	3746371.0	450.0	0.00	3.95	1.86	YES	
L0003334	0	0.95260E-07	477436.4	3746373.6	450.0	0.00	3.95	1.86	YES	
L0003335	0	0.95260E-07	477428.3	3746376.1	450.0	0.00	3.95	1.86	YES	
L0003336	0	0.95260E-07	477420.2	3746378.7	450.0	0.00	3.95	1.86	YES	
L0003337	0	0.95260E-07	477412.1	3746381.3	450.0	0.00	3.95	1.86	YES	
L0003338	0	0.95260E-07	477404.0	3746383.8	450.0	0.00	3.95	1.86	YES	
L0003339	0	0.95260E-07	477395.9	3746386.4	450.0	0.00	3.95	1.86	YES	
L0003340	0	0.95260E-07	477388.2	3746390.1	450.0	0.00	3.95	1.86	YES	
L0003341	0	0.95260E-07	477380.6	3746393.8	450.0	0.00	3.95	1.86	YES	
L0003342	0	0.95260E-07	477372.9	3746397.6	450.0	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003343	0	0.95260E-07	477365.3	3746401.3	450.0	0.00	3.95	1.86	YES	
L0003344	0	0.95260E-07	477357.7	3746405.0	450.0	0.00	3.95	1.86	YES	
L0003345	0	0.95260E-07	477350.0	3746408.7	450.0	0.00	3.95	1.86	YES	
L0003346	0	0.95260E-07	477342.4	3746412.4	450.0	0.00	3.95	1.86	YES	
L0003347	0	0.95260E-07	477334.7	3746416.1	450.0	0.00	3.95	1.86	YES	
L0003348	0	0.95260E-07	477328.2	3746421.6	450.0	0.00	3.95	1.86	YES	
L0003349	0	0.95260E-07	477321.6	3746427.0	450.0	0.00	3.95	1.86	YES	
L0003350	0	0.95260E-07	477315.1	3746432.4	450.0	0.00	3.95	1.86	YES	
L0003351	0	0.95260E-07	477308.5	3746437.8	450.0	0.00	3.95	1.86	YES	
L0003352	0	0.95260E-07	477302.0	3746443.3	450.0	0.00	3.95	1.86	YES	
L0003353	0	0.95260E-07	477295.1	3746448.2	450.0	0.00	3.95	1.86	YES	
L0003354	0	0.95260E-07	477288.2	3746453.1	450.0	0.00	3.95	1.86	YES	
L0003355	0	0.95260E-07	477281.2	3746458.0	450.0	0.00	3.95	1.86	YES	
L0003356	0	0.95260E-07	477274.3	3746462.9	450.0	0.00	3.95	1.86	YES	
L0003357	0	0.95260E-07	477267.3	3746467.8	450.0	0.00	3.95	1.86	YES	
L0003358	0	0.95260E-07	477260.3	3746472.7	450.0	0.00	3.95	1.86	YES	
L0003359	0	0.95260E-07	477253.4	3746477.5	450.0	0.00	3.95	1.86	YES	
L0003360	0	0.95260E-07	477246.4	3746482.4	450.1	0.00	3.95	1.86	YES	
L0003361	0	0.95260E-07	477239.5	3746487.3	450.2	0.00	3.95	1.86	YES	
L0003362	0	0.95260E-07	477232.5	3746492.2	450.3	0.00	3.95	1.86	YES	
L0003363	0	0.95260E-07	477225.5	3746497.1	450.2	0.00	3.95	1.86	YES	
L0003364	0	0.95260E-07	477218.6	3746501.9	450.2	0.00	3.95	1.86	YES	
L0003365	0	0.95260E-07	477211.6	3746506.8	450.3	0.00	3.95	1.86	YES	
L0003366	0	0.95260E-07	477204.7	3746511.7	450.5	0.00	3.95	1.86	YES	
L0003367	0	0.95260E-07	477197.7	3746516.6	450.7	0.00	3.95	1.86	YES	
L0003368	0	0.95260E-07	477190.7	3746521.5	451.0	0.00	3.95	1.86	YES	
L0003369	0	0.95260E-07	477183.0	3746524.7	451.0	0.00	3.95	1.86	YES	
L0003370	0	0.95260E-07	477174.8	3746526.9	451.0	0.00	3.95	1.86	YES	
L0003371	0	0.95260E-07	477166.6	3746529.1	451.0	0.00	3.95	1.86	YES	
L0003372	0	0.95260E-07	477158.4	3746531.3	451.0	0.00	3.95	1.86	YES	
L0003373	0	0.95260E-07	477150.2	3746533.5	451.0	0.00	3.95	1.86	YES	
L0003374	0	0.95260E-07	477142.0	3746535.8	451.0	0.00	3.95	1.86	YES	
L0003375	0	0.95260E-07	477133.8	3746538.0	451.0	0.00	3.95	1.86	YES	
L0003376	0	0.95260E-07	477125.6	3746540.2	451.0	0.00	3.95	1.86	YES	
L0003377	0	0.95260E-07	477117.3	3746542.1	451.0	0.00	3.95	1.86	YES	
L0003378	0	0.95260E-07	477108.8	3746542.7	451.0	0.00	3.95	1.86	YES	
L0003379	0	0.95260E-07	477100.3	3746543.3	451.0	0.00	3.95	1.86	YES	
L0003380	0	0.95260E-07	477091.9	3746543.9	451.0	0.00	3.95	1.86	YES	
L0003381	0	0.95260E-07	477083.4	3746544.5	451.0	0.00	3.95	1.86	YES	
L0003382	0	0.95260E-07	477074.9	3746545.1	451.0	0.00	3.95	1.86	YES	

*** VOLUME SOURCE DATA ***

SOURCE	NUMBER PART.	EMISSION RATE (GRAMS/SEC)	X	Y	BASE ELEV.	RELEASE HEIGHT	INIT. SY	INIT. SZ	URBAN SOURCE	EMISSION RATE SCALAR VARY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0003383	0	0.95260E-07	477066.4	3746545.7	451.1	0.00	3.95	1.86	YES
L0003384	0	0.95260E-07	477058.0	3746546.3	451.3	0.00	3.95	1.86	YES
L0003385	0	0.95260E-07	477049.5	3746546.9	451.4	0.00	3.95	1.86	YES
L0003386	0	0.95260E-07	477041.0	3746547.5	451.6	0.00	3.95	1.86	YES
L0003387	0	0.95260E-07	477032.5	3746547.7	451.7	0.00	3.95	1.86	YES
L0003388	0	0.95260E-07	477024.0	3746547.8	451.8	0.00	3.95	1.86	YES
L0003389	0	0.95260E-07	477015.5	3746548.0	451.9	0.00	3.95	1.86	YES
L0003390	0	0.95260E-07	477007.0	3746548.1	452.0	0.00	3.95	1.86	YES
L0003391	0	0.95260E-07	476998.5	3746548.3	452.0	0.00	3.95	1.86	YES
L0003392	0	0.95260E-07	476990.0	3746548.4	452.0	0.00	3.95	1.86	YES
L0003393	0	0.95260E-07	476981.5	3746548.6	452.0	0.00	3.95	1.86	YES
L0003394	0	0.95260E-07	476973.0	3746548.7	452.0	0.00	3.95	1.86	YES
L0003395	0	0.95260E-07	476964.5	3746548.9	452.0	0.00	3.95	1.86	YES
L0003396	0	0.95260E-07	476956.0	3746549.1	452.0	0.00	3.95	1.86	YES
L0003397	0	0.95260E-07	476947.5	3746549.2	452.0	0.00	3.95	1.86	YES
L0003398	0	0.95260E-07	476939.0	3746549.4	452.0	0.00	3.95	1.86	YES
L0003399	0	0.95260E-07	476930.5	3746549.5	452.0	0.00	3.95	1.86	YES
L0003400	0	0.95260E-07	476922.0	3746549.8	452.0	0.00	3.95	1.86	YES
L0003401	0	0.95260E-07	476913.5	3746550.0	452.1	0.00	3.95	1.86	YES
L0003402	0	0.95260E-07	476905.0	3746550.2	452.3	0.00	3.95	1.86	YES
L0003403	0	0.95260E-07	476896.5	3746550.4	452.4	0.00	3.95	1.86	YES
L0003404	0	0.95260E-07	476888.0	3746550.6	452.6	0.00	3.95	1.86	YES
L0003405	0	0.95260E-07	476879.5	3746550.8	452.7	0.00	3.95	1.86	YES
L0003406	0	0.95260E-07	476871.0	3746551.0	452.8	0.00	3.95	1.86	YES
L0003407	0	0.95260E-07	476862.5	3746551.2	453.0	0.00	3.95	1.86	YES
L0003408	0	0.95260E-07	476854.0	3746551.5	453.0	0.00	3.95	1.86	YES
L0003409	0	0.95260E-07	476845.5	3746551.7	453.0	0.00	3.95	1.86	YES
L0003410	0	0.95260E-07	476837.0	3746551.9	453.0	0.00	3.95	1.86	YES
L0003411	0	0.95260E-07	476828.5	3746552.1	453.0	0.00	3.95	1.86	YES
L0003412	0	0.95260E-07	476820.0	3746552.3	453.0	0.00	3.95	1.86	YES
L0003413	0	0.95260E-07	476811.6	3746552.5	453.0	0.00	3.95	1.86	YES
L0003414	0	0.95260E-07	476803.1	3746552.7	453.0	0.00	3.95	1.86	YES
L0003415	0	0.95260E-07	476794.6	3746552.9	453.0	0.00	3.95	1.86	YES
L0003416	0	0.95260E-07	476786.1	3746553.1	454.0	0.00	3.95	1.86	YES
L0003417	0	0.95260E-07	476777.6	3746552.3	454.0	0.00	3.95	1.86	YES
L0003418	0	0.95260E-07	476769.1	3746551.4	454.0	0.00	3.95	1.86	YES
L0003419	0	0.95260E-07	476760.7	3746550.6	454.0	0.00	3.95	1.86	YES
L0003420	0	0.95260E-07	476752.2	3746549.8	454.0	0.00	3.95	1.86	YES
L0003421	0	0.95260E-07	476743.7	3746549.3	454.0	0.00	3.95	1.86	YES
L0003422	0	0.95260E-07	476735.2	3746549.2	454.2	0.00	3.95	1.86	YES

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 11:01:54

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003423	0	0.95260E-07	476726.7	3746549.0	454.4	0.00	3.95	1.86	YES	
L0003424	0	0.95260E-07	476718.2	3746548.9	454.7	0.00	3.95	1.86	YES	
L0003425	0	0.95260E-07	476709.7	3746548.8	455.0	0.00	3.95	1.86	YES	
L0003426	0	0.95260E-07	476701.2	3746548.6	455.0	0.00	3.95	1.86	YES	
L0003427	0	0.95260E-07	476692.7	3746548.5	455.0	0.00	3.95	1.86	YES	
L0003428	0	0.95260E-07	476684.2	3746548.3	455.0	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0003429	0	0.95260E-07	476675.7	3746548.2	455.0	0.00	3.95	1.86	YES
L0003430	0	0.95260E-07	476667.2	3746548.0	455.0	0.00	3.95	1.86	YES
L0003431	0	0.95260E-07	476658.7	3746547.9	455.0	0.00	3.95	1.86	YES
L0003432	0	0.95260E-07	476650.2	3746547.7	455.0	0.00	3.95	1.86	YES
L0003433	0	0.95260E-07	476641.8	3746547.6	455.2	0.00	3.95	1.86	YES
L0003434	0	0.95260E-07	476633.9	3746550.3	455.3	0.00	3.95	1.86	YES
L0003435	0	0.95260E-07	476626.3	3746554.1	455.3	0.00	3.95	1.86	YES
L0003436	0	0.95260E-07	476618.7	3746557.9	455.3	0.00	3.95	1.86	YES
L0003437	0	0.95260E-07	476611.1	3746561.7	455.4	0.00	3.95	1.86	YES
L0003438	0	0.95260E-07	476603.5	3746565.5	455.6	0.00	3.95	1.86	YES
L0003439	0	0.95260E-07	476596.1	3746569.7	455.8	0.00	3.95	1.86	YES
L0003440	0	0.95260E-07	476589.1	3746574.5	456.0	0.00	3.95	1.86	YES
L0003441	0	0.95260E-07	476582.1	3746579.4	456.0	0.00	3.95	1.86	YES
L0003442	0	0.95260E-07	476575.2	3746584.2	456.0	0.00	3.95	1.86	YES
L0003443	0	0.95260E-07	476568.2	3746589.1	456.0	0.00	3.95	1.86	YES
L0003444	0	0.95260E-07	476561.2	3746593.9	456.0	0.00	3.95	1.86	YES
L0003445	0	0.95260E-07	476554.4	3746599.0	456.0	0.00	3.95	1.86	YES
L0003446	0	0.95260E-07	476548.2	3746604.8	456.0	0.00	3.95	1.86	YES
L0003447	0	0.95260E-07	476542.1	3746610.7	456.0	0.00	3.95	1.86	YES
L0003448	0	0.95260E-07	476535.9	3746616.5	456.0	0.00	3.95	1.86	YES
L0003449	0	0.95260E-07	476529.7	3746622.4	456.0	0.00	3.95	1.86	YES
L0003450	0	0.95260E-07	476523.6	3746628.2	456.0	0.00	3.95	1.86	YES
L0003451	0	0.95260E-07	476517.7	3746634.3	456.0	0.00	3.95	1.86	YES
L0003452	0	0.95260E-07	476514.0	3746642.0	456.0	0.00	3.95	1.86	YES
L0003453	0	0.95260E-07	476510.3	3746649.6	456.0	0.00	3.95	1.86	YES
L0003454	0	0.95260E-07	476506.7	3746657.3	456.0	0.00	3.95	1.86	YES
L0003455	0	0.95260E-07	476503.0	3746665.0	456.0	0.00	3.95	1.86	YES
L0003456	0	0.95260E-07	476499.3	3746672.6	456.0	0.00	3.95	1.86	YES
L0003457	0	0.95260E-07	476495.6	3746680.3	456.1	0.00	3.95	1.86	YES
L0003458	0	0.95260E-07	476492.2	3746688.1	456.3	0.00	3.95	1.86	YES
L0003459	0	0.95260E-07	476488.7	3746695.8	456.4	0.00	3.95	1.86	YES
L0003460	0	0.95260E-07	476485.3	3746703.6	456.5	0.00	3.95	1.86	YES
L0003461	0	0.95260E-07	476481.8	3746711.4	456.6	0.00	3.95	1.86	YES
L0003462	0	0.95260E-07	476478.4	3746719.1	456.7	0.00	3.95	1.86	YES

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** ***
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11:01:54

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003463	0	0.95260E-07	476474.9	3746726.9	456.5	0.00	3.95	1.86	YES	
L0003464	0	0.95260E-07	476471.5	3746734.7	456.4	0.00	3.95	1.86	YES	
L0003465	0	0.95260E-07	476468.0	3746742.4	456.2	0.00	3.95	1.86	YES	
L0003466	0	0.95260E-07	476465.1	3746750.4	456.2	0.00	3.95	1.86	YES	
L0003467	0	0.95260E-07	476463.0	3746758.6	456.2	0.00	3.95	1.86	YES	
L0003468	0	0.95260E-07	476461.0	3746766.9	456.3	0.00	3.95	1.86	YES	
L0003469	0	0.95260E-07	476458.9	3746775.1	456.4	0.00	3.95	1.86	YES	
L0003470	0	0.95260E-07	476456.8	3746783.4	456.4	0.00	3.95	1.86	YES	
L0003471	0	0.95260E-07	476454.8	3746791.6	456.5	0.00	3.95	1.86	YES	
L0003472	0	0.95260E-07	476452.7	3746799.9	456.6	0.00	3.95	1.86	YES	
L0003473	0	0.95260E-07	476450.7	3746808.1	456.6	0.00	3.95	1.86	YES	
L0003474	0	0.95260E-07	476448.6	3746816.3	456.5	0.00	3.95	1.86	YES	
L0003475	0	0.95260E-07	476446.5	3746824.6	456.3	0.00	3.95	1.86	YES	
L0003476	0	0.95260E-07	476444.5	3746832.8	456.1	0.00	3.95	1.86	YES	
L0003477	0	0.95260E-07	476442.4	3746841.1	456.0	0.00	3.95	1.86	YES	
L0003478	0	0.95260E-07	476438.2	3746848.2	456.1	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

L0003479	0	0.95260E-07	476432.7	3746854.7	456.2	0.00	3.95	1.86	YES
L0003480	0	0.95260E-07	476427.2	3746861.1	456.4	0.00	3.95	1.86	YES
L0003481	0	0.95260E-07	476421.6	3746867.6	456.6	0.00	3.95	1.86	YES
L0003482	0	0.95260E-07	476416.1	3746874.1	456.6	0.00	3.95	1.86	YES
L0003483	0	0.95260E-07	476410.6	3746880.5	456.5	0.00	3.95	1.86	YES
L0003484	0	0.95260E-07	476405.0	3746887.0	456.4	0.00	3.95	1.86	YES
L0003485	0	0.95260E-07	476399.5	3746893.4	456.4	0.00	3.95	1.86	YES
L0003486	0	0.95260E-07	476393.5	3746899.4	456.5	0.00	3.95	1.86	YES
L0003487	0	0.95260E-07	476387.0	3746904.8	456.5	0.00	3.95	1.86	YES
L0003488	0	0.95260E-07	476380.5	3746910.3	456.5	0.00	3.95	1.86	YES
L0003489	0	0.95260E-07	476374.0	3746915.8	456.5	0.00	3.95	1.86	YES
L0003490	0	0.95260E-07	476367.5	3746921.3	456.5	0.00	3.95	1.86	YES
L0003491	0	0.95260E-07	476360.9	3746926.5	456.6	0.00	3.95	1.86	YES
L0003492	0	0.95260E-07	476352.7	3746928.8	456.8	0.00	3.95	1.86	YES
L0003493	0	0.95260E-07	476344.5	3746931.0	456.9	0.00	3.95	1.86	YES
L0003494	0	0.95260E-07	476336.3	3746933.3	456.9	0.00	3.95	1.86	YES
L0003495	0	0.95260E-07	476328.1	3746935.5	456.9	0.00	3.95	1.86	YES
L0003496	0	0.95260E-07	476319.9	3746937.7	457.0	0.00	3.95	1.86	YES
L0003497	0	0.95260E-07	476311.4	3746938.7	457.0	0.00	3.95	1.86	YES
L0003498	0	0.95260E-07	476303.0	3746939.8	457.0	0.00	3.95	1.86	YES
L0003499	0	0.95260E-07	476294.6	3746940.8	457.0	0.00	3.95	1.86	YES
L0003500	0	0.95260E-07	476286.1	3746941.9	457.0	0.00	3.95	1.86	YES
L0003501	0	0.95260E-07	476277.7	3746942.9	457.0	0.00	3.95	1.86	YES
L0003502	0	0.95260E-07	476269.3	3746944.0	457.0	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003503	0	0.95260E-07	476260.8	3746945.0	457.0	0.00	3.95	1.86	YES	
L0003504	0	0.95260E-07	476252.3	3746945.2	457.0	0.00	3.95	1.86	YES	
L0003505	0	0.95260E-07	476243.8	3746945.3	457.0	0.00	3.95	1.86	YES	
L0003506	0	0.95260E-07	476235.3	3746945.5	457.0	0.00	3.95	1.86	YES	
L0003507	0	0.95260E-07	476226.8	3746945.6	457.0	0.00	3.95	1.86	YES	
L0003508	0	0.95260E-07	476218.3	3746945.8	457.1	0.00	3.95	1.86	YES	
L0003509	0	0.95260E-07	476209.8	3746945.9	457.2	0.00	3.95	1.86	YES	
L0003510	0	0.95260E-07	476201.3	3746946.0	457.3	0.00	3.95	1.86	YES	
L0003511	0	0.95260E-07	476192.8	3746946.2	457.5	0.00	3.95	1.86	YES	
L0003512	0	0.95260E-07	476184.3	3746946.3	457.7	0.00	3.95	1.86	YES	
L0003513	0	0.95260E-07	476175.8	3746946.4	457.9	0.00	3.95	1.86	YES	
L0003514	0	0.95260E-07	476167.3	3746946.6	458.0	0.00	3.95	1.86	YES	
L0003515	0	0.95260E-07	476158.8	3746946.7	458.0	0.00	3.95	1.86	YES	
L0003516	0	0.95260E-07	476150.3	3746946.9	458.0	0.00	3.95	1.86	YES	
L0003517	0	0.95260E-07	476141.8	3746947.0	458.0	0.00	3.95	1.86	YES	
L0003518	0	0.95260E-07	476133.3	3746947.1	458.2	0.00	3.95	1.86	YES	
L0003519	0	0.95260E-07	476124.8	3746947.3	458.5	0.00	3.95	1.86	YES	
L0003520	0	0.95260E-07	476116.3	3746947.4	458.8	0.00	3.95	1.86	YES	
L0003521	0	0.95260E-07	476107.8	3746947.5	459.0	0.00	3.95	1.86	YES	
L0003522	0	0.95260E-07	476099.3	3746947.7	459.0	0.00	3.95	1.86	YES	
L0003523	0	0.95260E-07	476090.8	3746947.8	459.0	0.00	3.95	1.86	YES	
L0003524	0	0.95260E-07	476082.3	3746947.9	459.0	0.00	3.95	1.86	YES	
L0003525	0	0.95260E-07	476073.8	3746948.1	459.2	0.00	3.95	1.86	YES	
L0003526	0	0.95260E-07	476065.3	3746948.2	459.5	0.00	3.95	1.86	YES	
L0003527	0	0.95260E-07	476056.8	3746948.4	459.8	0.00	3.95	1.86	YES	
L0003528	0	0.95260E-07	476048.3	3746948.5	460.0	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

L0003529	0	0.95260E-07	476039.8	3746948.6	460.0	0.00	3.95	1.86	YES
L0003530	0	0.95260E-07	476031.3	3746948.8	460.0	0.00	3.95	1.86	YES
L0003531	0	0.90230E-07	478284.5	3746785.9	447.0	0.00	3.95	1.86	YES
L0003532	0	0.90230E-07	478284.5	3746777.4	447.0	0.00	3.95	1.86	YES
L0003533	0	0.90230E-07	478284.6	3746768.9	447.0	0.00	3.95	1.86	YES
L0003534	0	0.90230E-07	478284.6	3746760.4	447.0	0.00	3.95	1.86	YES
L0003535	0	0.90230E-07	478284.6	3746751.9	447.0	0.00	3.95	1.86	YES
L0003536	0	0.90230E-07	478284.7	3746743.4	447.0	0.00	3.95	1.86	YES
L0003537	0	0.90230E-07	478284.7	3746734.9	447.0	0.00	3.95	1.86	YES
L0003538	0	0.90230E-07	478284.7	3746726.4	447.0	0.00	3.95	1.86	YES
L0003539	0	0.90230E-07	478284.8	3746717.9	447.0	0.00	3.95	1.86	YES
L0003540	0	0.90230E-07	478284.8	3746709.4	447.0	0.00	3.95	1.86	YES
L0003541	0	0.90230E-07	478284.8	3746700.9	447.0	0.00	3.95	1.86	YES
L0003542	0	0.90230E-07	478284.9	3746692.4	447.0	0.00	3.95	1.86	YES

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 11:01:54

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003543	0	0.90230E-07	478284.9	3746683.9	447.0	0.00	3.95	1.86	YES	
L0003544	0	0.90230E-07	478284.9	3746675.4	447.0	0.00	3.95	1.86	YES	
L0003545	0	0.90230E-07	478284.9	3746666.9	447.0	0.00	3.95	1.86	YES	
L0003546	0	0.90230E-07	478285.0	3746658.4	447.0	0.00	3.95	1.86	YES	
L0003547	0	0.90230E-07	478285.0	3746649.9	447.0	0.00	3.95	1.86	YES	
L0003548	0	0.90230E-07	478285.0	3746641.4	447.0	0.00	3.95	1.86	YES	
L0003549	0	0.90230E-07	478285.1	3746632.9	447.0	0.00	3.95	1.86	YES	
L0003550	0	0.90230E-07	478285.1	3746624.4	447.0	0.00	3.95	1.86	YES	
L0003551	0	0.90230E-07	478285.1	3746615.9	447.0	0.00	3.95	1.86	YES	
L0003552	0	0.90230E-07	478285.2	3746607.4	447.0	0.00	3.95	1.86	YES	
L0003553	0	0.90230E-07	478285.2	3746598.9	447.0	0.00	3.95	1.86	YES	
L0003554	0	0.90230E-07	478285.2	3746590.4	447.0	0.00	3.95	1.86	YES	
L0003555	0	0.90230E-07	478285.3	3746581.9	447.0	0.00	3.95	1.86	YES	
L0003556	0	0.90230E-07	478285.3	3746573.4	447.0	0.00	3.95	1.86	YES	
L0003557	0	0.90230E-07	478285.3	3746564.9	447.0	0.00	3.95	1.86	YES	
L0003558	0	0.90230E-07	478285.3	3746556.4	447.0	0.00	3.95	1.86	YES	
L0003559	0	0.90230E-07	478285.4	3746547.9	447.0	0.00	3.95	1.86	YES	
L0003560	0	0.90230E-07	478285.4	3746539.4	447.0	0.00	3.95	1.86	YES	
L0003561	0	0.90230E-07	478285.4	3746530.9	447.0	0.00	3.95	1.86	YES	
L0003562	0	0.90230E-07	478285.5	3746522.4	447.0	0.00	3.95	1.86	YES	
L0003563	0	0.90230E-07	478285.5	3746513.9	447.0	0.00	3.95	1.86	YES	
L0003564	0	0.90230E-07	478285.5	3746505.4	447.0	0.00	3.95	1.86	YES	
L0003565	0	0.90230E-07	478285.6	3746496.9	447.0	0.00	3.95	1.86	YES	
L0003566	0	0.90230E-07	478285.6	3746488.4	447.0	0.00	3.95	1.86	YES	
L0003567	0	0.90230E-07	478285.6	3746479.9	447.0	0.00	3.95	1.86	YES	
L0003568	0	0.90230E-07	478285.7	3746471.4	447.0	0.00	3.95	1.86	YES	
L0003569	0	0.90230E-07	478285.7	3746462.9	447.0	0.00	3.95	1.86	YES	
L0003570	0	0.90230E-07	478285.7	3746454.4	447.0	0.00	3.95	1.86	YES	
L0003571	0	0.90230E-07	478285.8	3746445.9	447.0	0.00	3.95	1.86	YES	
L0003572	0	0.90230E-07	478285.8	3746437.4	446.8	0.00	3.95	1.86	YES	
L0003573	0	0.90230E-07	478285.8	3746428.9	446.7	0.00	3.95	1.86	YES	
L0003574	0	0.90230E-07	478285.8	3746420.4	446.5	0.00	3.95	1.86	YES	
L0003575	0	0.90230E-07	478285.9	3746411.9	446.5	0.00	3.95	1.86	YES	
L0003576	0	0.90230E-07	478285.9	3746403.4	446.5	0.00	3.95	1.86	YES	
L0003577	0	0.90230E-07	478285.9	3746394.9	446.5	0.00	3.95	1.86	YES	
L0003578	0	0.90230E-07	478286.0	3746386.4	446.5	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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L0003579	0	0.90230E-07	478286.0	3746377.9	446.5	0.00	3.95	1.86	YES
L0003580	0	0.90230E-07	478286.0	3746369.4	446.5	0.00	3.95	1.86	YES
L0003581	0	0.90230E-07	478286.1	3746360.9	446.5	0.00	3.95	1.86	YES
L0003582	0	0.90230E-07	478284.4	3746354.1	446.5	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003583	0	0.90230E-07	478275.9	3746354.1	446.8	0.00	3.95	1.86	YES	
L0003584	0	0.90230E-07	478267.4	3746354.2	447.0	0.00	3.95	1.86	YES	
L0003585	0	0.90230E-07	478258.9	3746354.2	447.0	0.00	3.95	1.86	YES	
L0003586	0	0.90230E-07	478250.4	3746354.3	447.0	0.00	3.95	1.86	YES	
L0003587	0	0.90230E-07	478241.9	3746354.3	447.0	0.00	3.95	1.86	YES	
L0003588	0	0.90230E-07	478233.4	3746354.4	447.0	0.00	3.95	1.86	YES	
L0003589	0	0.90230E-07	478224.9	3746354.4	447.0	0.00	3.95	1.86	YES	
L0003590	0	0.90230E-07	478216.4	3746354.4	447.0	0.00	3.95	1.86	YES	
L0003591	0	0.90230E-07	478207.9	3746354.5	447.0	0.00	3.95	1.86	YES	
L0003592	0	0.90230E-07	478199.4	3746354.5	447.0	0.00	3.95	1.86	YES	
L0003593	0	0.90230E-07	478190.9	3746354.6	447.0	0.00	3.95	1.86	YES	
L0003594	0	0.90230E-07	478182.4	3746354.6	447.0	0.00	3.95	1.86	YES	
L0003595	0	0.90230E-07	478173.9	3746354.6	447.0	0.00	3.95	1.86	YES	
L0003596	0	0.90230E-07	478165.4	3746354.7	447.0	0.00	3.95	1.86	YES	
L0003597	0	0.90230E-07	478156.9	3746354.7	447.0	0.00	3.95	1.86	YES	
L0003598	0	0.90230E-07	478148.4	3746354.8	447.0	0.00	3.95	1.86	YES	
L0003599	0	0.90230E-07	478139.9	3746354.8	447.0	0.00	3.95	1.86	YES	
L0003600	0	0.90230E-07	478131.4	3746354.9	447.0	0.00	3.95	1.86	YES	
L0003601	0	0.90230E-07	478122.9	3746354.9	447.0	0.00	3.95	1.86	YES	
L0003602	0	0.90230E-07	478114.4	3746354.9	447.0	0.00	3.95	1.86	YES	
L0003603	0	0.90230E-07	478105.9	3746355.0	447.0	0.00	3.95	1.86	YES	
L0003604	0	0.90230E-07	478097.4	3746355.0	447.0	0.00	3.95	1.86	YES	
L0003605	0	0.90230E-07	478088.9	3746355.1	447.0	0.00	3.95	1.86	YES	
L0003606	0	0.90230E-07	478080.4	3746355.1	447.0	0.00	3.95	1.86	YES	
L0003607	0	0.90230E-07	478071.9	3746355.2	447.0	0.00	3.95	1.86	YES	
L0003608	0	0.90230E-07	478063.4	3746355.2	447.0	0.00	3.95	1.86	YES	
L0003609	0	0.90230E-07	478054.9	3746355.2	447.0	0.00	3.95	1.86	YES	
L0003610	0	0.90230E-07	478046.4	3746355.3	447.0	0.00	3.95	1.86	YES	
L0003611	0	0.90230E-07	478037.9	3746355.3	447.0	0.00	3.95	1.86	YES	
L0003612	0	0.90230E-07	478029.4	3746355.4	447.0	0.00	3.95	1.86	YES	
L0003613	0	0.90230E-07	478020.9	3746355.4	447.0	0.00	3.95	1.86	YES	
L0003614	0	0.90230E-07	478012.4	3746355.5	447.0	0.00	3.95	1.86	YES	
L0003615	0	0.90230E-07	478003.9	3746355.5	447.0	0.00	3.95	1.86	YES	
L0003616	0	0.90230E-07	477995.4	3746355.5	447.0	0.00	3.95	1.86	YES	
L0003617	0	0.90230E-07	477986.9	3746355.6	447.0	0.00	3.95	1.86	YES	
L0003618	0	0.90230E-07	477978.4	3746355.6	447.0	0.00	3.95	1.86	YES	
L0003619	0	0.90230E-07	477969.9	3746355.7	447.0	0.00	3.95	1.86	YES	
L0003620	0	0.90230E-07	477961.4	3746355.7	447.0	0.00	3.95	1.86	YES	
L0003621	0	0.90230E-07	477952.9	3746355.8	447.0	0.00	3.95	1.86	YES	
L0003622	0	0.90230E-07	477944.4	3746355.8	447.0	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003623	0	0.90230E-07	477935.9	3746355.8	447.1	0.00	3.95	1.86	YES	
L0003624	0	0.90230E-07	477927.4	3746355.9	447.4	0.00	3.95	1.86	YES	
L0003625	0	0.90230E-07	477918.9	3746355.9	447.7	0.00	3.95	1.86	YES	
L0003626	0	0.90230E-07	477910.4	3746356.0	448.0	0.00	3.95	1.86	YES	
L0003627	0	0.90230E-07	477901.9	3746356.0	448.0	0.00	3.95	1.86	YES	
L0003628	0	0.90230E-07	477893.4	3746356.1	448.0	0.00	3.95	1.86	YES	
L0003629	0	0.90230E-07	477884.9	3746356.1	448.0	0.00	3.95	1.86	YES	
L0003630	0	0.90230E-07	477876.4	3746356.1	448.0	0.00	3.95	1.86	YES	
L0003631	0	0.90230E-07	477867.9	3746356.2	448.0	0.00	3.95	1.86	YES	
L0003632	0	0.90230E-07	477859.4	3746356.2	448.0	0.00	3.95	1.86	YES	
L0003633	0	0.90230E-07	477850.9	3746356.3	448.0	0.00	3.95	1.86	YES	
L0003634	0	0.90230E-07	477842.4	3746356.3	448.0	0.00	3.95	1.86	YES	
L0003635	0	0.90230E-07	477833.9	3746356.4	448.0	0.00	3.95	1.86	YES	
L0003636	0	0.90230E-07	477825.4	3746356.4	448.0	0.00	3.95	1.86	YES	
L0003637	0	0.90230E-07	477816.9	3746356.4	448.0	0.00	3.95	1.86	YES	
L0003638	0	0.90230E-07	477808.4	3746356.5	448.0	0.00	3.95	1.86	YES	
L0003639	0	0.90230E-07	477799.9	3746356.5	448.0	0.00	3.95	1.86	YES	
L0003640	0	0.90230E-07	477791.4	3746356.6	448.0	0.00	3.95	1.86	YES	
L0003641	0	0.90230E-07	477782.9	3746356.6	448.0	0.00	3.95	1.86	YES	
L0003642	0	0.90230E-07	477774.4	3746356.7	448.0	0.00	3.95	1.86	YES	
L0003643	0	0.90230E-07	477765.9	3746356.7	448.0	0.00	3.95	1.86	YES	
L0003644	0	0.90230E-07	477757.4	3746356.7	448.0	0.00	3.95	1.86	YES	
L0003645	0	0.90230E-07	477748.9	3746356.8	448.0	0.00	3.95	1.86	YES	
L0003646	0	0.90230E-07	477740.4	3746356.8	448.0	0.00	3.95	1.86	YES	
L0003647	0	0.90230E-07	477731.9	3746356.9	448.0	0.00	3.95	1.86	YES	
L0003648	0	0.90230E-07	477723.4	3746356.9	448.0	0.00	3.95	1.86	YES	
L0003649	0	0.90230E-07	477714.9	3746357.0	448.0	0.00	3.95	1.86	YES	
L0003650	0	0.90230E-07	477706.4	3746357.0	448.0	0.00	3.95	1.86	YES	
L0003651	0	0.90230E-07	477697.9	3746357.0	448.0	0.00	3.95	1.86	YES	
L0003652	0	0.90230E-07	477689.4	3746357.1	448.0	0.00	3.95	1.86	YES	
L0003653	0	0.90230E-07	477680.9	3746357.1	448.0	0.00	3.95	1.86	YES	
L0003654	0	0.90230E-07	477672.4	3746357.2	448.0	0.00	3.95	1.86	YES	
L0003655	0	0.90230E-07	477663.9	3746357.2	448.0	0.00	3.95	1.86	YES	
L0003656	0	0.90230E-07	477655.4	3746357.3	448.0	0.00	3.95	1.86	YES	
L0003657	0	0.90230E-07	477646.9	3746357.3	448.0	0.00	3.95	1.86	YES	
L0003658	0	0.90230E-07	477638.4	3746357.3	448.1	0.00	3.95	1.86	YES	
L0003659	0	0.90230E-07	477629.9	3746357.4	448.3	0.00	3.95	1.86	YES	
L0003660	0	0.90230E-07	477621.4	3746357.5	448.6	0.00	3.95	1.86	YES	
L0003661	0	0.90230E-07	477612.9	3746357.7	448.9	0.00	3.95	1.86	YES	
L0003662	0	0.90230E-07	477604.4	3746357.9	449.0	0.00	3.95	1.86	YES	

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY

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L0003663	0	0.90230E-07	477595.9	3746358.1	449.0	0.00	3.95	1.86	YES
L0003664	0	0.90230E-07	477587.4	3746358.3	449.0	0.00	3.95	1.86	YES
L0003665	0	0.90230E-07	477578.9	3746358.4	449.0	0.00	3.95	1.86	YES
L0003666	0	0.90230E-07	477570.4	3746358.6	449.0	0.00	3.95	1.86	YES
L0003667	0	0.90230E-07	477561.9	3746358.8	449.0	0.00	3.95	1.86	YES
L0003668	0	0.90230E-07	477553.4	3746359.0	449.0	0.00	3.95	1.86	YES
L0003669	0	0.90230E-07	477544.9	3746359.2	449.0	0.00	3.95	1.86	YES
L0003670	0	0.90230E-07	477536.4	3746359.4	449.0	0.00	3.95	1.86	YES
L0003671	0	0.90230E-07	477527.9	3746359.6	449.0	0.00	3.95	1.86	YES
L0003672	0	0.90230E-07	477519.4	3746359.8	449.0	0.00	3.95	1.86	YES
L0003673	0	0.90230E-07	477510.9	3746360.0	449.0	0.00	3.95	1.86	YES
L0003674	0	0.90230E-07	477502.4	3746360.1	449.0	0.00	3.95	1.86	YES
L0003675	0	0.90230E-07	477493.9	3746360.3	449.0	0.00	3.95	1.86	YES
L0003676	0	0.90230E-07	477485.4	3746360.5	449.2	0.00	3.95	1.86	YES
L0003677	0	0.90230E-07	477476.9	3746360.8	449.4	0.00	3.95	1.86	YES
L0003678	0	0.90230E-07	477468.8	3746363.3	449.7	0.00	3.95	1.86	YES
L0003679	0	0.90230E-07	477460.7	3746365.9	450.0	0.00	3.95	1.86	YES
L0003680	0	0.90230E-07	477452.6	3746368.4	450.0	0.00	3.95	1.86	YES
L0003681	0	0.90230E-07	477444.5	3746371.0	450.0	0.00	3.95	1.86	YES
L0003682	0	0.90230E-07	477436.4	3746373.6	450.0	0.00	3.95	1.86	YES
L0003683	0	0.90230E-07	477428.3	3746376.1	450.0	0.00	3.95	1.86	YES
L0003684	0	0.90230E-07	477420.2	3746378.7	450.0	0.00	3.95	1.86	YES
L0003685	0	0.90230E-07	477412.1	3746381.3	450.0	0.00	3.95	1.86	YES
L0003686	0	0.90230E-07	477404.0	3746383.8	450.0	0.00	3.95	1.86	YES
L0003687	0	0.90230E-07	477395.9	3746386.4	450.0	0.00	3.95	1.86	YES
L0003688	0	0.90230E-07	477388.2	3746390.1	450.0	0.00	3.95	1.86	YES
L0003689	0	0.90230E-07	477380.6	3746393.8	450.0	0.00	3.95	1.86	YES
L0003690	0	0.90230E-07	477372.9	3746397.6	450.0	0.00	3.95	1.86	YES
L0003691	0	0.90230E-07	477365.3	3746401.3	450.0	0.00	3.95	1.86	YES
L0003692	0	0.90230E-07	477357.7	3746405.0	450.0	0.00	3.95	1.86	YES
L0003693	0	0.90230E-07	477350.0	3746408.7	450.0	0.00	3.95	1.86	YES
L0003694	0	0.90230E-07	477342.4	3746412.4	450.0	0.00	3.95	1.86	YES
L0003695	0	0.90230E-07	477334.7	3746416.1	450.0	0.00	3.95	1.86	YES
L0003696	0	0.90230E-07	477328.2	3746421.6	450.0	0.00	3.95	1.86	YES
L0003697	0	0.90230E-07	477321.6	3746427.0	450.0	0.00	3.95	1.86	YES
L0003698	0	0.90230E-07	477315.1	3746432.4	450.0	0.00	3.95	1.86	YES
L0003699	0	0.90230E-07	477308.5	3746437.8	450.0	0.00	3.95	1.86	YES
L0003700	0	0.90230E-07	477302.0	3746443.3	450.0	0.00	3.95	1.86	YES
L0003701	0	0.90230E-07	477295.1	3746448.2	450.0	0.00	3.95	1.86	YES
L0003702	0	0.90230E-07	477288.2	3746453.1	450.0	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003703	0	0.90230E-07	477281.2	3746458.0	450.0	0.00	3.95	1.86	YES	
L0003704	0	0.90230E-07	477274.3	3746462.9	450.0	0.00	3.95	1.86	YES	
L0003705	0	0.90230E-07	477267.3	3746467.8	450.0	0.00	3.95	1.86	YES	
L0003706	0	0.90230E-07	477260.3	3746472.7	450.0	0.00	3.95	1.86	YES	
L0003707	0	0.90230E-07	477253.4	3746477.5	450.0	0.00	3.95	1.86	YES	
L0003708	0	0.90230E-07	477246.4	3746482.4	450.1	0.00	3.95	1.86	YES	
L0003709	0	0.90230E-07	477239.5	3746487.3	450.2	0.00	3.95	1.86	YES	
L0003710	0	0.90230E-07	477232.5	3746492.2	450.3	0.00	3.95	1.86	YES	
L0003711	0	0.90230E-07	477225.5	3746497.1	450.2	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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L0003712	0	0.90230E-07	477218.6	3746501.9	450.2	0.00	3.95	1.86	YES
L0003713	0	0.90230E-07	477211.6	3746506.8	450.3	0.00	3.95	1.86	YES
L0003714	0	0.90230E-07	477204.7	3746511.7	450.5	0.00	3.95	1.86	YES
L0003715	0	0.90230E-07	477197.7	3746516.6	450.7	0.00	3.95	1.86	YES
L0003716	0	0.90230E-07	477190.7	3746521.5	451.0	0.00	3.95	1.86	YES
L0003717	0	0.90230E-07	477183.0	3746524.7	451.0	0.00	3.95	1.86	YES
L0003718	0	0.90230E-07	477174.8	3746526.9	451.0	0.00	3.95	1.86	YES
L0003719	0	0.90230E-07	477166.6	3746529.1	451.0	0.00	3.95	1.86	YES
L0003720	0	0.90230E-07	477158.4	3746531.3	451.0	0.00	3.95	1.86	YES
L0003721	0	0.90230E-07	477150.2	3746533.5	451.0	0.00	3.95	1.86	YES
L0003722	0	0.90230E-07	477142.0	3746535.8	451.0	0.00	3.95	1.86	YES
L0003723	0	0.90230E-07	477133.8	3746538.0	451.0	0.00	3.95	1.86	YES
L0003724	0	0.90230E-07	477125.6	3746540.2	451.0	0.00	3.95	1.86	YES
L0003725	0	0.90230E-07	477117.3	3746542.1	451.0	0.00	3.95	1.86	YES
L0003726	0	0.90230E-07	477108.8	3746542.7	451.0	0.00	3.95	1.86	YES
L0003727	0	0.90230E-07	477100.3	3746543.3	451.0	0.00	3.95	1.86	YES
L0003728	0	0.90230E-07	477091.9	3746543.9	451.0	0.00	3.95	1.86	YES
L0003729	0	0.90230E-07	477083.4	3746544.5	451.0	0.00	3.95	1.86	YES
L0003730	0	0.90230E-07	477074.9	3746545.1	451.0	0.00	3.95	1.86	YES
L0003731	0	0.90230E-07	477066.4	3746545.7	451.1	0.00	3.95	1.86	YES
L0003732	0	0.90230E-07	477058.0	3746546.3	451.3	0.00	3.95	1.86	YES
L0003733	0	0.90230E-07	477049.5	3746546.9	451.4	0.00	3.95	1.86	YES
L0003734	0	0.90230E-07	477041.0	3746547.5	451.6	0.00	3.95	1.86	YES
L0003735	0	0.90230E-07	477032.5	3746547.7	451.7	0.00	3.95	1.86	YES
L0003736	0	0.90230E-07	477024.0	3746547.8	451.8	0.00	3.95	1.86	YES
L0003737	0	0.90230E-07	477015.5	3746548.0	451.9	0.00	3.95	1.86	YES
L0003738	0	0.90230E-07	477007.0	3746548.1	452.0	0.00	3.95	1.86	YES
L0003739	0	0.90230E-07	476998.5	3746548.3	452.0	0.00	3.95	1.86	YES
L0003740	0	0.90230E-07	476990.0	3746548.4	452.0	0.00	3.95	1.86	YES
L0003741	0	0.90230E-07	476981.5	3746548.6	452.0	0.00	3.95	1.86	YES
L0003742	0	0.90230E-07	476973.0	3746548.7	452.0	0.00	3.95	1.86	YES

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 11:01:54

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003743	0	0.90230E-07	476964.5	3746548.9	452.0	0.00	3.95	1.86	YES	
L0003744	0	0.90230E-07	476956.0	3746549.1	452.0	0.00	3.95	1.86	YES	
L0003745	0	0.90230E-07	476947.5	3746549.2	452.0	0.00	3.95	1.86	YES	
L0003746	0	0.90230E-07	476939.0	3746549.4	452.0	0.00	3.95	1.86	YES	
L0003747	0	0.90230E-07	476930.5	3746549.5	452.0	0.00	3.95	1.86	YES	
L0003748	0	0.90230E-07	476922.0	3746549.8	452.0	0.00	3.95	1.86	YES	
L0003749	0	0.90230E-07	476913.5	3746550.0	452.1	0.00	3.95	1.86	YES	
L0003750	0	0.90230E-07	476905.0	3746550.2	452.3	0.00	3.95	1.86	YES	
L0003751	0	0.90230E-07	476896.5	3746550.4	452.4	0.00	3.95	1.86	YES	
L0003752	0	0.90230E-07	476888.0	3746550.6	452.6	0.00	3.95	1.86	YES	
L0003753	0	0.90230E-07	476879.5	3746550.8	452.7	0.00	3.95	1.86	YES	
L0003754	0	0.90230E-07	476871.0	3746551.0	452.8	0.00	3.95	1.86	YES	
L0003755	0	0.90230E-07	476862.5	3746551.2	453.0	0.00	3.95	1.86	YES	
L0003756	0	0.90230E-07	476854.0	3746551.5	453.0	0.00	3.95	1.86	YES	
L0003757	0	0.90230E-07	476845.5	3746551.7	453.0	0.00	3.95	1.86	YES	
L0003758	0	0.90230E-07	476837.0	3746551.9	453.0	0.00	3.95	1.86	YES	
L0003759	0	0.90230E-07	476828.5	3746552.1	453.0	0.00	3.95	1.86	YES	
L0003760	0	0.90230E-07	476820.0	3746552.3	453.0	0.00	3.95	1.86	YES	
L0003761	0	0.90230E-07	476811.6	3746552.5	453.0	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0003762	0	0.90230E-07	476803.1	3746552.7	453.0	0.00	3.95	1.86	YES
L0003763	0	0.90230E-07	476794.6	3746552.9	453.0	0.00	3.95	1.86	YES
L0003764	0	0.90230E-07	476786.1	3746553.1	454.0	0.00	3.95	1.86	YES
L0003765	0	0.90230E-07	476777.6	3746552.3	454.0	0.00	3.95	1.86	YES
L0003766	0	0.90230E-07	476769.1	3746551.4	454.0	0.00	3.95	1.86	YES
L0003767	0	0.90230E-07	476760.7	3746550.6	454.0	0.00	3.95	1.86	YES
L0003768	0	0.90230E-07	476752.2	3746549.8	454.0	0.00	3.95	1.86	YES
L0003769	0	0.90230E-07	476743.7	3746549.3	454.0	0.00	3.95	1.86	YES
L0003770	0	0.90230E-07	476735.2	3746549.2	454.2	0.00	3.95	1.86	YES
L0003771	0	0.90230E-07	476726.7	3746549.0	454.4	0.00	3.95	1.86	YES
L0003772	0	0.90230E-07	476718.2	3746548.9	454.7	0.00	3.95	1.86	YES
L0003773	0	0.90230E-07	476709.7	3746548.8	455.0	0.00	3.95	1.86	YES
L0003774	0	0.90230E-07	476701.2	3746548.6	455.0	0.00	3.95	1.86	YES
L0003775	0	0.90230E-07	476692.7	3746548.5	455.0	0.00	3.95	1.86	YES
L0003776	0	0.90230E-07	476684.2	3746548.3	455.0	0.00	3.95	1.86	YES
L0003777	0	0.90230E-07	476675.7	3746548.2	455.0	0.00	3.95	1.86	YES
L0003778	0	0.90230E-07	476667.2	3746548.0	455.0	0.00	3.95	1.86	YES
L0003779	0	0.90230E-07	476658.7	3746547.9	455.0	0.00	3.95	1.86	YES
L0003780	0	0.90230E-07	476650.2	3746547.7	455.0	0.00	3.95	1.86	YES
L0003781	0	0.90230E-07	476641.8	3746547.6	455.2	0.00	3.95	1.86	YES
L0003782	0	0.90230E-07	476633.9	3746550.3	455.3	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003783	0	0.90230E-07	476626.3	3746554.1	455.3	0.00	3.95	1.86	YES	
L0003784	0	0.90230E-07	476618.7	3746557.9	455.3	0.00	3.95	1.86	YES	
L0003785	0	0.90230E-07	476611.1	3746561.7	455.4	0.00	3.95	1.86	YES	
L0003786	0	0.90230E-07	476603.5	3746565.5	455.6	0.00	3.95	1.86	YES	
L0003787	0	0.90230E-07	476596.1	3746569.7	455.8	0.00	3.95	1.86	YES	
L0003788	0	0.90230E-07	476589.1	3746574.5	456.0	0.00	3.95	1.86	YES	
L0003789	0	0.90230E-07	476582.1	3746579.4	456.0	0.00	3.95	1.86	YES	
L0003790	0	0.90230E-07	476575.2	3746584.2	456.0	0.00	3.95	1.86	YES	
L0003791	0	0.90230E-07	476568.2	3746589.1	456.0	0.00	3.95	1.86	YES	
L0003792	0	0.90230E-07	476561.2	3746593.9	456.0	0.00	3.95	1.86	YES	
L0003793	0	0.90230E-07	476554.4	3746599.0	456.0	0.00	3.95	1.86	YES	
L0003794	0	0.90230E-07	476548.2	3746604.8	456.0	0.00	3.95	1.86	YES	
L0003795	0	0.90230E-07	476542.1	3746610.7	456.0	0.00	3.95	1.86	YES	
L0003796	0	0.90230E-07	476535.9	3746616.5	456.0	0.00	3.95	1.86	YES	
L0003797	0	0.90230E-07	476529.7	3746622.4	456.0	0.00	3.95	1.86	YES	
L0003798	0	0.90230E-07	476523.6	3746628.2	456.0	0.00	3.95	1.86	YES	
L0003799	0	0.90230E-07	476517.7	3746634.3	456.0	0.00	3.95	1.86	YES	
L0003800	0	0.90230E-07	476514.0	3746642.0	456.0	0.00	3.95	1.86	YES	
L0003801	0	0.90230E-07	476510.3	3746649.6	456.0	0.00	3.95	1.86	YES	
L0003802	0	0.90230E-07	476506.7	3746657.3	456.0	0.00	3.95	1.86	YES	
L0003803	0	0.90230E-07	476503.0	3746665.0	456.0	0.00	3.95	1.86	YES	
L0003804	0	0.90230E-07	476499.3	3746672.6	456.0	0.00	3.95	1.86	YES	
L0003805	0	0.90230E-07	476495.6	3746680.3	456.1	0.00	3.95	1.86	YES	
L0003806	0	0.90230E-07	476492.2	3746688.1	456.3	0.00	3.95	1.86	YES	
L0003807	0	0.90230E-07	476488.7	3746695.8	456.4	0.00	3.95	1.86	YES	
L0003808	0	0.90230E-07	476485.3	3746703.6	456.5	0.00	3.95	1.86	YES	
L0003809	0	0.90230E-07	476481.8	3746711.4	456.6	0.00	3.95	1.86	YES	
L0003810	0	0.90230E-07	476478.4	3746719.1	456.7	0.00	3.95	1.86	YES	
L0003811	0	0.90230E-07	476474.9	3746726.9	456.5	0.00	3.95	1.86	YES	

Residential

L0003812	0	0.90230E-07	476471.5	3746734.7	456.4	0.00	3.95	1.86	YES
L0003813	0	0.90230E-07	476468.0	3746742.4	456.2	0.00	3.95	1.86	YES
L0003814	0	0.90230E-07	476465.1	3746750.4	456.2	0.00	3.95	1.86	YES
L0003815	0	0.90230E-07	476463.0	3746758.6	456.2	0.00	3.95	1.86	YES
L0003816	0	0.90230E-07	476461.0	3746766.9	456.3	0.00	3.95	1.86	YES
L0003817	0	0.90230E-07	476458.9	3746775.1	456.4	0.00	3.95	1.86	YES
L0003818	0	0.90230E-07	476456.8	3746783.4	456.4	0.00	3.95	1.86	YES
L0003819	0	0.90230E-07	476454.8	3746791.6	456.5	0.00	3.95	1.86	YES
L0003820	0	0.90230E-07	476452.7	3746799.9	456.6	0.00	3.95	1.86	YES
L0003821	0	0.90230E-07	476450.7	3746808.1	456.6	0.00	3.95	1.86	YES
L0003822	0	0.90230E-07	476448.6	3746816.3	456.5	0.00	3.95	1.86	YES

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 11:01:54

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003823	0	0.90230E-07	476446.5	3746824.6	456.3	0.00	3.95	1.86	YES	
L0003824	0	0.90230E-07	476444.5	3746832.8	456.1	0.00	3.95	1.86	YES	
L0003825	0	0.90230E-07	476442.4	3746841.1	456.0	0.00	3.95	1.86	YES	
L0003826	0	0.90230E-07	476438.2	3746848.2	456.1	0.00	3.95	1.86	YES	
L0003827	0	0.90230E-07	476432.7	3746854.7	456.2	0.00	3.95	1.86	YES	
L0003828	0	0.90230E-07	476427.2	3746861.1	456.4	0.00	3.95	1.86	YES	
L0003829	0	0.90230E-07	476421.6	3746867.6	456.6	0.00	3.95	1.86	YES	
L0003830	0	0.90230E-07	476416.1	3746874.1	456.6	0.00	3.95	1.86	YES	
L0003831	0	0.90230E-07	476410.6	3746880.5	456.5	0.00	3.95	1.86	YES	
L0003832	0	0.90230E-07	476405.0	3746887.0	456.4	0.00	3.95	1.86	YES	
L0003833	0	0.90230E-07	476399.5	3746893.4	456.4	0.00	3.95	1.86	YES	
L0003834	0	0.90230E-07	476393.5	3746899.4	456.5	0.00	3.95	1.86	YES	
L0003835	0	0.90230E-07	476387.0	3746904.8	456.5	0.00	3.95	1.86	YES	
L0003836	0	0.90230E-07	476380.5	3746910.3	456.5	0.00	3.95	1.86	YES	
L0003837	0	0.90230E-07	476374.0	3746915.8	456.5	0.00	3.95	1.86	YES	
L0003838	0	0.90230E-07	476367.5	3746921.3	456.5	0.00	3.95	1.86	YES	
L0003839	0	0.90230E-07	476360.9	3746926.5	456.6	0.00	3.95	1.86	YES	
L0003840	0	0.90230E-07	476352.7	3746928.8	456.8	0.00	3.95	1.86	YES	
L0003841	0	0.90230E-07	476344.5	3746931.0	456.9	0.00	3.95	1.86	YES	
L0003842	0	0.90230E-07	476336.3	3746933.3	456.9	0.00	3.95	1.86	YES	
L0003843	0	0.90230E-07	476328.1	3746935.5	456.9	0.00	3.95	1.86	YES	
L0003844	0	0.90230E-07	476319.9	3746937.7	457.0	0.00	3.95	1.86	YES	
L0003845	0	0.90230E-07	476311.4	3746938.7	457.0	0.00	3.95	1.86	YES	
L0003846	0	0.90230E-07	476303.0	3746939.8	457.0	0.00	3.95	1.86	YES	
L0003847	0	0.90230E-07	476294.6	3746940.8	457.0	0.00	3.95	1.86	YES	
L0003848	0	0.90230E-07	476286.1	3746941.9	457.0	0.00	3.95	1.86	YES	
L0003849	0	0.90230E-07	476277.7	3746942.9	457.0	0.00	3.95	1.86	YES	
L0003850	0	0.90230E-07	476269.3	3746944.0	457.0	0.00	3.95	1.86	YES	
L0003851	0	0.90230E-07	476260.8	3746945.0	457.0	0.00	3.95	1.86	YES	
L0003852	0	0.90230E-07	476252.3	3746945.2	457.0	0.00	3.95	1.86	YES	
L0003853	0	0.90230E-07	476243.8	3746945.3	457.0	0.00	3.95	1.86	YES	
L0003854	0	0.90230E-07	476235.3	3746945.5	457.0	0.00	3.95	1.86	YES	
L0003855	0	0.90230E-07	476226.8	3746945.6	457.0	0.00	3.95	1.86	YES	
L0003856	0	0.90230E-07	476218.3	3746945.8	457.1	0.00	3.95	1.86	YES	
L0003857	0	0.90230E-07	476209.8	3746945.9	457.2	0.00	3.95	1.86	YES	
L0003858	0	0.90230E-07	476201.3	3746946.0	457.3	0.00	3.95	1.86	YES	
L0003859	0	0.90230E-07	476192.8	3746946.2	457.5	0.00	3.95	1.86	YES	
L0003860	0	0.90230E-07	476184.3	3746946.3	457.7	0.00	3.95	1.86	YES	
L0003861	0	0.90230E-07	476175.8	3746946.4	457.9	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003863	0	0.90230E-07	476158.8	3746946.7	458.0	0.00	3.95	1.86	YES	
L0003864	0	0.90230E-07	476150.3	3746946.9	458.0	0.00	3.95	1.86	YES	
L0003865	0	0.90230E-07	476141.8	3746947.0	458.0	0.00	3.95	1.86	YES	
L0003866	0	0.90230E-07	476133.3	3746947.1	458.2	0.00	3.95	1.86	YES	
L0003867	0	0.90230E-07	476124.8	3746947.3	458.5	0.00	3.95	1.86	YES	
L0003868	0	0.90230E-07	476116.3	3746947.4	458.8	0.00	3.95	1.86	YES	
L0003869	0	0.90230E-07	476107.8	3746947.5	459.0	0.00	3.95	1.86	YES	
L0003870	0	0.90230E-07	476099.3	3746947.7	459.0	0.00	3.95	1.86	YES	
L0003871	0	0.90230E-07	476090.8	3746947.8	459.0	0.00	3.95	1.86	YES	
L0003872	0	0.90230E-07	476082.3	3746947.9	459.0	0.00	3.95	1.86	YES	
L0003873	0	0.90230E-07	476073.8	3746948.1	459.2	0.00	3.95	1.86	YES	
L0003874	0	0.90230E-07	476065.3	3746948.2	459.5	0.00	3.95	1.86	YES	
L0003875	0	0.90230E-07	476056.8	3746948.4	459.8	0.00	3.95	1.86	YES	
L0003876	0	0.90230E-07	476048.3	3746948.5	460.0	0.00	3.95	1.86	YES	
L0003877	0	0.90230E-07	476039.8	3746948.6	460.0	0.00	3.95	1.86	YES	
L0003878	0	0.90230E-07	476031.3	3746948.8	460.0	0.00	3.95	1.86	YES	
L0003879	0	0.50280E-08	479065.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003880	0	0.50280E-08	479057.2	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003881	0	0.50280E-08	479048.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003882	0	0.50280E-08	479040.2	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003883	0	0.50280E-08	479031.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003884	0	0.50280E-08	479023.2	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003885	0	0.50280E-08	479014.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003886	0	0.50280E-08	479006.2	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003887	0	0.50280E-08	478997.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003888	0	0.50280E-08	478989.2	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003889	0	0.50280E-08	478980.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003890	0	0.50280E-08	478972.2	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003891	0	0.50280E-08	478963.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003892	0	0.50280E-08	478955.2	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003893	0	0.50280E-08	478946.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003894	0	0.50280E-08	478938.2	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003895	0	0.50280E-08	478929.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003896	0	0.50280E-08	478921.2	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003897	0	0.50280E-08	478912.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003898	0	0.50280E-08	478904.2	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003899	0	0.50280E-08	478895.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0003900	0	0.50280E-08	478887.2	3747774.7	448.1	0.00	3.95	1.86	YES	
L0003901	0	0.50280E-08	478878.7	3747774.7	448.2	0.00	3.95	1.86	YES	
L0003902	0	0.50280E-08	478870.2	3747774.7	448.3	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003903	0	0.50280E-08	478861.7	3747774.7	448.5	0.00	3.95	1.86	YES	
L0003904	0	0.50280E-08	478853.2	3747774.7	448.7	0.00	3.95	1.86	YES	
L0003905	0	0.50280E-08	478844.7	3747774.7	448.9	0.00	3.95	1.86	YES	
L0003906	0	0.50280E-08	478836.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003907	0	0.50280E-08	478827.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003908	0	0.50280E-08	478819.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003909	0	0.50280E-08	478810.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003910	0	0.50280E-08	478802.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003911	0	0.50280E-08	478793.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003912	0	0.50280E-08	478785.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003913	0	0.50280E-08	478776.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003914	0	0.50280E-08	478768.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003915	0	0.50280E-08	478759.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003916	0	0.50280E-08	478751.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003917	0	0.50280E-08	478742.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003918	0	0.50280E-08	478734.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003919	0	0.50280E-08	478725.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003920	0	0.50280E-08	478717.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003921	0	0.50280E-08	478708.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003922	0	0.50280E-08	478700.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003923	0	0.50280E-08	478691.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003924	0	0.50280E-08	478683.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003925	0	0.50280E-08	478674.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003926	0	0.50280E-08	478666.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003927	0	0.50280E-08	478657.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003928	0	0.50280E-08	478649.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003929	0	0.50280E-08	478640.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003930	0	0.50280E-08	478632.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003931	0	0.50280E-08	478623.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003932	0	0.50280E-08	478615.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003933	0	0.50280E-08	478606.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003934	0	0.50280E-08	478598.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003935	0	0.50280E-08	478589.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003936	0	0.50280E-08	478581.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003937	0	0.50280E-08	478572.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003938	0	0.50280E-08	478564.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003939	0	0.50280E-08	478555.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003940	0	0.50280E-08	478547.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003941	0	0.50280E-08	478538.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003942	0	0.50280E-08	478530.2	3747774.7	449.0	0.00	3.95	1.86	YES	

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003943	0	0.50280E-08	478521.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0003944	0	0.50280E-08	478513.2	3747774.7	449.0	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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L0003945	0	0.50280E-08	478504.7	3747774.7	449.0	0.00	3.95	1.86	YES
L0003946	0	0.50280E-08	478496.2	3747774.7	449.0	0.00	3.95	1.86	YES
L0003947	0	0.50280E-08	478487.7	3747774.7	449.0	0.00	3.95	1.86	YES
L0003948	0	0.50280E-08	478479.2	3747774.7	449.0	0.00	3.95	1.86	YES
L0003949	0	0.50280E-08	478470.7	3747774.7	449.0	0.00	3.95	1.86	YES
L0003950	0	0.50280E-08	478462.2	3747774.7	449.0	0.00	3.95	1.86	YES
L0003951	0	0.50280E-08	478453.7	3747774.7	449.0	0.00	3.95	1.86	YES
L0003952	0	0.50280E-08	478445.2	3747774.7	449.0	0.00	3.95	1.86	YES
L0003953	0	0.50280E-08	478436.7	3747774.7	449.0	0.00	3.95	1.86	YES
L0003954	0	0.50280E-08	478428.2	3747774.7	449.0	0.00	3.95	1.86	YES
L0003955	0	0.50280E-08	478419.7	3747774.7	449.0	0.00	3.95	1.86	YES
L0003956	0	0.50280E-08	478411.2	3747774.7	449.0	0.00	3.95	1.86	YES
L0003957	0	0.50280E-08	478402.7	3747774.7	449.0	0.00	3.95	1.86	YES
L0003958	0	0.50280E-08	478394.2	3747774.7	449.0	0.00	3.95	1.86	YES
L0003959	0	0.50280E-08	478385.7	3747774.7	449.0	0.00	3.95	1.86	YES
L0003960	0	0.50280E-08	478377.2	3747774.7	449.0	0.00	3.95	1.86	YES
L0003961	0	0.50280E-08	478368.7	3747774.7	449.0	0.00	3.95	1.86	YES
L0003962	0	0.50280E-08	478360.2	3747774.7	449.0	0.00	3.95	1.86	YES
L0003963	0	0.50280E-08	478351.7	3747774.7	449.0	0.00	3.95	1.86	YES
L0003964	0	0.50280E-08	478343.2	3747774.7	449.0	0.00	3.95	1.86	YES
L0003965	0	0.50280E-08	478334.7	3747774.7	449.0	0.00	3.95	1.86	YES
L0003966	0	0.50280E-08	478326.2	3747774.7	449.0	0.00	3.95	1.86	YES
L0003967	0	0.50280E-08	478317.7	3747774.7	449.0	0.00	3.95	1.86	YES
L0003968	0	0.50280E-08	478309.2	3747774.7	449.0	0.00	3.95	1.86	YES
L0003969	0	0.50280E-08	478300.7	3747774.7	449.0	0.00	3.95	1.86	YES
L0003970	0	0.50280E-08	478292.2	3747774.7	449.0	0.00	3.95	1.86	YES
L0003971	0	0.50280E-08	478283.7	3747774.7	449.0	0.00	3.95	1.86	YES
L0003972	0	0.50280E-08	478275.2	3747774.7	449.0	0.00	3.95	1.86	YES
L0003973	0	0.50280E-08	478274.1	3747767.4	449.0	0.00	3.95	1.86	YES
L0003974	0	0.50280E-08	478274.2	3747758.9	449.0	0.00	3.95	1.86	YES
L0003975	0	0.50280E-08	478274.3	3747750.4	449.0	0.00	3.95	1.86	YES
L0003976	0	0.50280E-08	478274.4	3747741.9	449.0	0.00	3.95	1.86	YES
L0003977	0	0.50280E-08	478274.5	3747733.4	449.0	0.00	3.95	1.86	YES
L0003978	0	0.50280E-08	478274.6	3747724.9	449.0	0.00	3.95	1.86	YES
L0003979	0	0.50280E-08	478274.7	3747716.4	449.0	0.00	3.95	1.86	YES
L0003980	0	0.50280E-08	478274.8	3747707.9	449.0	0.00	3.95	1.86	YES
L0003981	0	0.50280E-08	478274.9	3747699.4	449.0	0.00	3.95	1.86	YES
L0003982	0	0.50280E-08	478275.0	3747690.9	449.0	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0003983	0	0.50280E-08	478275.0	3747682.4	449.0	0.00	3.95	1.86	YES	
L0003984	0	0.50280E-08	478275.1	3747673.9	448.9	0.00	3.95	1.86	YES	
L0003985	0	0.50280E-08	478275.2	3747665.4	448.6	0.00	3.95	1.86	YES	
L0003986	0	0.50280E-08	478275.3	3747656.9	448.4	0.00	3.95	1.86	YES	
L0003987	0	0.50280E-08	478275.4	3747648.4	448.1	0.00	3.95	1.86	YES	
L0003988	0	0.50280E-08	478275.5	3747639.9	448.0	0.00	3.95	1.86	YES	
L0003989	0	0.50280E-08	478275.6	3747631.4	448.0	0.00	3.95	1.86	YES	
L0003990	0	0.50280E-08	478275.7	3747622.9	448.0	0.00	3.95	1.86	YES	
L0003991	0	0.50280E-08	478275.8	3747614.4	448.0	0.00	3.95	1.86	YES	
L0003992	0	0.50280E-08	478275.9	3747605.9	448.0	0.00	3.95	1.86	YES	
L0003993	0	0.50280E-08	478276.0	3747597.4	448.0	0.00	3.95	1.86	YES	
L0003994	0	0.50280E-08	478276.1	3747588.9	448.0	0.00	3.95	1.86	YES	

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L0003995	0	0.50280E-08	478276.2	3747580.4	448.0	0.00	3.95	1.86	YES
L0003996	0	0.50280E-08	478276.3	3747571.9	448.0	0.00	3.95	1.86	YES
L0003997	0	0.50280E-08	478276.4	3747563.4	448.0	0.00	3.95	1.86	YES
L0003998	0	0.50280E-08	478276.5	3747554.9	448.0	0.00	3.95	1.86	YES
L0003999	0	0.50280E-08	478276.6	3747546.4	448.0	0.00	3.95	1.86	YES
L0004000	0	0.50280E-08	478276.7	3747537.9	448.0	0.00	3.95	1.86	YES
L0004001	0	0.50280E-08	478276.8	3747529.4	448.0	0.00	3.95	1.86	YES
L0004002	0	0.50280E-08	478276.9	3747520.9	448.0	0.00	3.95	1.86	YES
L0004003	0	0.50280E-08	478277.0	3747512.4	448.0	0.00	3.95	1.86	YES
L0004004	0	0.50280E-08	478277.1	3747503.9	448.0	0.00	3.95	1.86	YES
L0004005	0	0.50280E-08	478277.2	3747495.4	448.0	0.00	3.95	1.86	YES
L0004006	0	0.50280E-08	478277.3	3747486.9	448.0	0.00	3.95	1.86	YES
L0004007	0	0.50280E-08	478277.4	3747478.4	448.0	0.00	3.95	1.86	YES
L0004008	0	0.50280E-08	478277.5	3747469.9	448.0	0.00	3.95	1.86	YES
L0004009	0	0.50280E-08	478277.6	3747461.4	448.0	0.00	3.95	1.86	YES
L0004010	0	0.50280E-08	478277.7	3747452.9	448.0	0.00	3.95	1.86	YES
L0004011	0	0.50280E-08	478277.8	3747444.4	448.0	0.00	3.95	1.86	YES
L0004012	0	0.50280E-08	478277.9	3747435.9	448.0	0.00	3.95	1.86	YES
L0004013	0	0.50280E-08	478278.0	3747427.4	448.0	0.00	3.95	1.86	YES
L0004014	0	0.50280E-08	478278.1	3747418.9	448.0	0.00	3.95	1.86	YES
L0004015	0	0.50280E-08	478278.2	3747410.4	448.0	0.00	3.95	1.86	YES
L0004016	0	0.50280E-08	478278.3	3747401.9	448.0	0.00	3.95	1.86	YES
L0004017	0	0.50280E-08	478278.4	3747393.4	448.0	0.00	3.95	1.86	YES
L0004018	0	0.50280E-08	478278.5	3747384.9	448.0	0.00	3.95	1.86	YES
L0004019	0	0.50280E-08	478278.6	3747376.4	448.0	0.00	3.95	1.86	YES
L0004020	0	0.50280E-08	478278.7	3747367.9	448.0	0.00	3.95	1.86	YES
L0004021	0	0.50280E-08	478278.8	3747359.4	448.0	0.00	3.95	1.86	YES
L0004022	0	0.50280E-08	478278.9	3747350.9	448.0	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004023	0	0.50280E-08	478279.0	3747342.4	448.0	0.00	3.95	1.86	YES	
L0004024	0	0.50280E-08	478279.1	3747333.9	448.0	0.00	3.95	1.86	YES	
L0004025	0	0.50280E-08	478279.2	3747325.4	448.0	0.00	3.95	1.86	YES	
L0004026	0	0.50280E-08	478279.2	3747316.9	448.0	0.00	3.95	1.86	YES	
L0004027	0	0.50280E-08	478279.3	3747308.4	448.0	0.00	3.95	1.86	YES	
L0004028	0	0.50280E-08	478279.4	3747299.9	448.0	0.00	3.95	1.86	YES	
L0004029	0	0.50280E-08	478279.5	3747291.4	448.0	0.00	3.95	1.86	YES	
L0004030	0	0.50280E-08	478279.6	3747282.9	448.0	0.00	3.95	1.86	YES	
L0004031	0	0.50280E-08	478279.7	3747274.4	448.0	0.00	3.95	1.86	YES	
L0004032	0	0.50280E-08	478279.8	3747265.9	448.0	0.00	3.95	1.86	YES	
L0004033	0	0.50280E-08	478279.9	3747257.4	448.0	0.00	3.95	1.86	YES	
L0004034	0	0.50280E-08	478280.0	3747248.9	448.0	0.00	3.95	1.86	YES	
L0004035	0	0.50280E-08	478280.1	3747240.4	448.0	0.00	3.95	1.86	YES	
L0004036	0	0.50280E-08	478280.2	3747231.9	448.0	0.00	3.95	1.86	YES	
L0004037	0	0.50280E-08	478280.3	3747223.4	448.0	0.00	3.95	1.86	YES	
L0004038	0	0.50280E-08	478280.4	3747214.9	448.0	0.00	3.95	1.86	YES	
L0004039	0	0.50280E-08	478280.5	3747206.4	448.0	0.00	3.95	1.86	YES	
L0004040	0	0.50280E-08	478280.6	3747197.9	448.0	0.00	3.95	1.86	YES	
L0004041	0	0.50280E-08	478280.7	3747189.4	448.0	0.00	3.95	1.86	YES	
L0004042	0	0.50280E-08	478280.8	3747180.9	448.0	0.00	3.95	1.86	YES	
L0004043	0	0.50280E-08	478280.9	3747172.4	448.0	0.00	3.95	1.86	YES	
L0004044	0	0.50280E-08	478281.0	3747163.9	448.0	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

L0004045	0	0.50280E-08	478281.1	3747155.4	448.0	0.00	3.95	1.86	YES
L0004046	0	0.50280E-08	478281.2	3747146.9	448.0	0.00	3.95	1.86	YES
L0004047	0	0.50280E-08	478281.3	3747138.4	448.0	0.00	3.95	1.86	YES
L0004048	0	0.50280E-08	478281.4	3747129.9	448.0	0.00	3.95	1.86	YES
L0004049	0	0.50280E-08	478281.5	3747121.4	448.0	0.00	3.95	1.86	YES
L0004050	0	0.50280E-08	478281.6	3747112.9	448.0	0.00	3.95	1.86	YES
L0004051	0	0.50280E-08	478281.7	3747104.4	448.0	0.00	3.95	1.86	YES
L0004052	0	0.50280E-08	478281.8	3747095.9	448.0	0.00	3.95	1.86	YES
L0004053	0	0.50280E-08	478281.9	3747087.4	448.0	0.00	3.95	1.86	YES
L0004054	0	0.50280E-08	478282.0	3747078.9	448.0	0.00	3.95	1.86	YES
L0004055	0	0.50280E-08	478282.1	3747070.4	448.0	0.00	3.95	1.86	YES
L0004056	0	0.50280E-08	478282.2	3747061.9	448.0	0.00	3.95	1.86	YES
L0004057	0	0.50280E-08	478282.3	3747053.4	448.0	0.00	3.95	1.86	YES
L0004058	0	0.50280E-08	478282.4	3747044.9	448.0	0.00	3.95	1.86	YES
L0004059	0	0.50280E-08	478282.5	3747036.5	448.0	0.00	3.95	1.86	YES
L0004060	0	0.50280E-08	478282.6	3747028.0	448.0	0.00	3.95	1.86	YES
L0004061	0	0.50280E-08	478282.7	3747019.5	448.0	0.00	3.95	1.86	YES
L0004062	0	0.50280E-08	478282.8	3747011.0	448.0	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004063	0	0.50280E-08	478282.9	3747002.5	448.0	0.00	3.95	1.86	YES	
L0004064	0	0.50280E-08	478283.0	3746994.0	448.0	0.00	3.95	1.86	YES	
L0004065	0	0.50280E-08	478283.1	3746985.5	448.0	0.00	3.95	1.86	YES	
L0004066	0	0.50280E-08	478283.2	3746977.0	448.0	0.00	3.95	1.86	YES	
L0004067	0	0.50280E-08	478283.3	3746968.5	448.0	0.00	3.95	1.86	YES	
L0004068	0	0.50280E-08	478283.4	3746960.0	448.0	0.00	3.95	1.86	YES	
L0004069	0	0.50280E-08	478283.5	3746951.5	448.0	0.00	3.95	1.86	YES	
L0004070	0	0.50280E-08	478283.5	3746943.0	448.0	0.00	3.95	1.86	YES	
L0004071	0	0.50280E-08	478283.6	3746934.5	448.0	0.00	3.95	1.86	YES	
L0004072	0	0.50280E-08	478283.7	3746926.0	448.0	0.00	3.95	1.86	YES	
L0004073	0	0.50280E-08	478283.8	3746917.5	448.0	0.00	3.95	1.86	YES	
L0004074	0	0.50280E-08	478283.9	3746909.0	448.0	0.00	3.95	1.86	YES	
L0004075	0	0.50280E-08	478284.0	3746900.5	448.0	0.00	3.95	1.86	YES	
L0004076	0	0.50280E-08	478284.1	3746892.0	448.0	0.00	3.95	1.86	YES	
L0004077	0	0.50280E-08	478284.2	3746883.5	448.0	0.00	3.95	1.86	YES	
L0004078	0	0.50280E-08	478284.3	3746875.0	448.0	0.00	3.95	1.86	YES	
L0004079	0	0.50280E-08	478284.4	3746866.5	448.0	0.00	3.95	1.86	YES	
L0004080	0	0.50280E-08	478284.5	3746858.0	447.9	0.00	3.95	1.86	YES	
L0004081	0	0.50280E-08	478284.6	3746849.5	447.7	0.00	3.95	1.86	YES	
L0004082	0	0.50280E-08	478284.7	3746841.0	447.6	0.00	3.95	1.86	YES	
L0004083	0	0.50280E-08	478284.8	3746832.5	447.4	0.00	3.95	1.86	YES	
L0004084	0	0.50280E-08	478284.9	3746824.0	447.3	0.00	3.95	1.86	YES	
L0004085	0	0.50280E-08	478285.0	3746815.5	447.2	0.00	3.95	1.86	YES	
L0004086	0	0.50280E-08	478285.1	3746807.0	447.0	0.00	3.95	1.86	YES	
L0004087	0	0.50280E-08	478285.2	3746798.5	447.0	0.00	3.95	1.86	YES	
L0004088	0	0.50280E-08	478285.3	3746790.0	447.0	0.00	3.95	1.86	YES	
L0004089	0	0.50280E-08	478285.4	3746781.5	447.0	0.00	3.95	1.86	YES	
L0004090	0	0.50280E-08	478285.5	3746773.0	447.0	0.00	3.95	1.86	YES	
L0004091	0	0.14620E-07	479065.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0004092	0	0.14620E-07	479057.2	3747774.7	448.0	0.00	3.95	1.86	YES	
L0004093	0	0.14620E-07	479048.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0004094	0	0.14620E-07	479040.2	3747774.7	448.0	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

L0004095	0	0.14620E-07	479031.7	3747774.7	448.0	0.00	3.95	1.86	YES
L0004096	0	0.14620E-07	479023.2	3747774.7	448.0	0.00	3.95	1.86	YES
L0004097	0	0.14620E-07	479014.7	3747774.7	448.0	0.00	3.95	1.86	YES
L0004098	0	0.14620E-07	479006.2	3747774.7	448.0	0.00	3.95	1.86	YES
L0004099	0	0.14620E-07	478997.7	3747774.7	448.0	0.00	3.95	1.86	YES
L0004100	0	0.14620E-07	478989.2	3747774.7	448.0	0.00	3.95	1.86	YES
L0004101	0	0.14620E-07	478980.7	3747774.7	448.0	0.00	3.95	1.86	YES
L0004102	0	0.14620E-07	478972.2	3747774.7	448.0	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004103	0	0.14620E-07	478963.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0004104	0	0.14620E-07	478955.2	3747774.7	448.0	0.00	3.95	1.86	YES	
L0004105	0	0.14620E-07	478946.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0004106	0	0.14620E-07	478938.2	3747774.7	448.0	0.00	3.95	1.86	YES	
L0004107	0	0.14620E-07	478929.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0004108	0	0.14620E-07	478921.2	3747774.7	448.0	0.00	3.95	1.86	YES	
L0004109	0	0.14620E-07	478912.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0004110	0	0.14620E-07	478904.2	3747774.7	448.0	0.00	3.95	1.86	YES	
L0004111	0	0.14620E-07	478895.7	3747774.7	448.0	0.00	3.95	1.86	YES	
L0004112	0	0.14620E-07	478887.2	3747774.7	448.1	0.00	3.95	1.86	YES	
L0004113	0	0.14620E-07	478878.7	3747774.7	448.2	0.00	3.95	1.86	YES	
L0004114	0	0.14620E-07	478870.2	3747774.7	448.3	0.00	3.95	1.86	YES	
L0004115	0	0.14620E-07	478861.7	3747774.7	448.5	0.00	3.95	1.86	YES	
L0004116	0	0.14620E-07	478853.2	3747774.7	448.7	0.00	3.95	1.86	YES	
L0004117	0	0.14620E-07	478844.7	3747774.7	448.9	0.00	3.95	1.86	YES	
L0004118	0	0.14620E-07	478836.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004119	0	0.14620E-07	478827.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004120	0	0.14620E-07	478819.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004121	0	0.14620E-07	478810.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004122	0	0.14620E-07	478802.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004123	0	0.14620E-07	478793.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004124	0	0.14620E-07	478785.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004125	0	0.14620E-07	478776.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004126	0	0.14620E-07	478768.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004127	0	0.14620E-07	478759.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004128	0	0.14620E-07	478751.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004129	0	0.14620E-07	478742.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004130	0	0.14620E-07	478734.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004131	0	0.14620E-07	478725.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004132	0	0.14620E-07	478717.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004133	0	0.14620E-07	478708.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004134	0	0.14620E-07	478700.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004135	0	0.14620E-07	478691.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004136	0	0.14620E-07	478683.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004137	0	0.14620E-07	478674.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004138	0	0.14620E-07	478666.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004139	0	0.14620E-07	478657.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004140	0	0.14620E-07	478649.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004141	0	0.14620E-07	478640.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004142	0	0.14620E-07	478632.2	3747774.7	449.0	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

*** AERMET - VERSION 14134 *** *** ***
11:01:54

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004143	0	0.14620E-07	478623.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004144	0	0.14620E-07	478615.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004145	0	0.14620E-07	478606.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004146	0	0.14620E-07	478598.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004147	0	0.14620E-07	478589.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004148	0	0.14620E-07	478581.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004149	0	0.14620E-07	478572.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004150	0	0.14620E-07	478564.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004151	0	0.14620E-07	478555.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004152	0	0.14620E-07	478547.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004153	0	0.14620E-07	478538.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004154	0	0.14620E-07	478530.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004155	0	0.14620E-07	478521.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004156	0	0.14620E-07	478513.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004157	0	0.14620E-07	478504.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004158	0	0.14620E-07	478496.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004159	0	0.14620E-07	478487.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004160	0	0.14620E-07	478479.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004161	0	0.14620E-07	478470.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004162	0	0.14620E-07	478462.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004163	0	0.14620E-07	478453.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004164	0	0.14620E-07	478445.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004165	0	0.14620E-07	478436.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004166	0	0.14620E-07	478428.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004167	0	0.14620E-07	478419.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004168	0	0.14620E-07	478411.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004169	0	0.14620E-07	478402.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004170	0	0.14620E-07	478394.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004171	0	0.14620E-07	478385.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004172	0	0.14620E-07	478377.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004173	0	0.14620E-07	478368.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004174	0	0.14620E-07	478360.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004175	0	0.14620E-07	478351.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004176	0	0.14620E-07	478343.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004177	0	0.14620E-07	478334.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004178	0	0.14620E-07	478326.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004179	0	0.14620E-07	478317.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004180	0	0.14620E-07	478309.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004181	0	0.14620E-07	478300.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004182	0	0.14620E-07	478292.2	3747774.7	449.0	0.00	3.95	1.86	YES	

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
11:01:54

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID	PART. CATS.	(GRAMS/SEC)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)	SOURCE	SCALAR VARY BY
L0004183	0	0.14620E-07	478283.7	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004184	0	0.14620E-07	478275.2	3747774.7	449.0	0.00	3.95	1.86	YES	
L0004185	0	0.14620E-07	478274.1	3747767.4	449.0	0.00	3.95	1.86	YES	
L0004186	0	0.14620E-07	478274.2	3747758.9	449.0	0.00	3.95	1.86	YES	
L0004187	0	0.14620E-07	478274.3	3747750.4	449.0	0.00	3.95	1.86	YES	
L0004188	0	0.14620E-07	478274.4	3747741.9	449.0	0.00	3.95	1.86	YES	
L0004189	0	0.14620E-07	478274.5	3747733.4	449.0	0.00	3.95	1.86	YES	
L0004190	0	0.14620E-07	478274.6	3747724.9	449.0	0.00	3.95	1.86	YES	
L0004191	0	0.14620E-07	478274.7	3747716.4	449.0	0.00	3.95	1.86	YES	
L0004192	0	0.14620E-07	478274.8	3747707.9	449.0	0.00	3.95	1.86	YES	
L0004193	0	0.14620E-07	478274.9	3747699.4	449.0	0.00	3.95	1.86	YES	
L0004194	0	0.14620E-07	478275.0	3747690.9	449.0	0.00	3.95	1.86	YES	
L0004195	0	0.14620E-07	478275.0	3747682.4	449.0	0.00	3.95	1.86	YES	
L0004196	0	0.14620E-07	478275.1	3747673.9	448.9	0.00	3.95	1.86	YES	
L0004197	0	0.14620E-07	478275.2	3747665.4	448.6	0.00	3.95	1.86	YES	
L0004198	0	0.14620E-07	478275.3	3747656.9	448.4	0.00	3.95	1.86	YES	
L0004199	0	0.14620E-07	478275.4	3747648.4	448.1	0.00	3.95	1.86	YES	
L0004200	0	0.14620E-07	478275.5	3747639.9	448.0	0.00	3.95	1.86	YES	
L0004201	0	0.14620E-07	478275.6	3747631.4	448.0	0.00	3.95	1.86	YES	
L0004202	0	0.14620E-07	478275.7	3747622.9	448.0	0.00	3.95	1.86	YES	
L0004203	0	0.14620E-07	478275.8	3747614.4	448.0	0.00	3.95	1.86	YES	
L0004204	0	0.14620E-07	478275.9	3747605.9	448.0	0.00	3.95	1.86	YES	
L0004205	0	0.14620E-07	478276.0	3747597.4	448.0	0.00	3.95	1.86	YES	
L0004206	0	0.14620E-07	478276.1	3747588.9	448.0	0.00	3.95	1.86	YES	
L0004207	0	0.14620E-07	478276.2	3747580.4	448.0	0.00	3.95	1.86	YES	
L0004208	0	0.14620E-07	478276.3	3747571.9	448.0	0.00	3.95	1.86	YES	
L0004209	0	0.14620E-07	478276.4	3747563.4	448.0	0.00	3.95	1.86	YES	
L0004210	0	0.14620E-07	478276.5	3747554.9	448.0	0.00	3.95	1.86	YES	
L0004211	0	0.14620E-07	478276.6	3747546.4	448.0	0.00	3.95	1.86	YES	
L0004212	0	0.14620E-07	478276.7	3747537.9	448.0	0.00	3.95	1.86	YES	
L0004213	0	0.14620E-07	478276.8	3747529.4	448.0	0.00	3.95	1.86	YES	
L0004214	0	0.14620E-07	478276.9	3747520.9	448.0	0.00	3.95	1.86	YES	
L0004215	0	0.14620E-07	478277.0	3747512.4	448.0	0.00	3.95	1.86	YES	
L0004216	0	0.14620E-07	478277.1	3747503.9	448.0	0.00	3.95	1.86	YES	
L0004217	0	0.14620E-07	478277.2	3747495.4	448.0	0.00	3.95	1.86	YES	
L0004218	0	0.14620E-07	478277.3	3747486.9	448.0	0.00	3.95	1.86	YES	
L0004219	0	0.14620E-07	478277.4	3747478.4	448.0	0.00	3.95	1.86	YES	
L0004220	0	0.14620E-07	478277.5	3747469.9	448.0	0.00	3.95	1.86	YES	
L0004221	0	0.14620E-07	478277.6	3747461.4	448.0	0.00	3.95	1.86	YES	
L0004222	0	0.14620E-07	478277.7	3747452.9	448.0	0.00	3.95	1.86	YES	

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004223	0	0.14620E-07	478277.8	3747444.4	448.0	0.00	3.95	1.86	YES	
L0004224	0	0.14620E-07	478277.9	3747435.9	448.0	0.00	3.95	1.86	YES	
L0004225	0	0.14620E-07	478278.0	3747427.4	448.0	0.00	3.95	1.86	YES	
L0004226	0	0.14620E-07	478278.1	3747418.9	448.0	0.00	3.95	1.86	YES	
L0004227	0	0.14620E-07	478278.2	3747410.4	448.0	0.00	3.95	1.86	YES	

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L0004228	0	0.14620E-07	478278.3	3747401.9	448.0	0.00	3.95	1.86	YES
L0004229	0	0.14620E-07	478278.4	3747393.4	448.0	0.00	3.95	1.86	YES
L0004230	0	0.14620E-07	478278.5	3747384.9	448.0	0.00	3.95	1.86	YES
L0004231	0	0.14620E-07	478278.6	3747376.4	448.0	0.00	3.95	1.86	YES
L0004232	0	0.14620E-07	478278.7	3747367.9	448.0	0.00	3.95	1.86	YES
L0004233	0	0.14620E-07	478278.8	3747359.4	448.0	0.00	3.95	1.86	YES
L0004234	0	0.14620E-07	478278.9	3747350.9	448.0	0.00	3.95	1.86	YES
L0004235	0	0.14620E-07	478279.0	3747342.4	448.0	0.00	3.95	1.86	YES
L0004236	0	0.14620E-07	478279.1	3747333.9	448.0	0.00	3.95	1.86	YES
L0004237	0	0.14620E-07	478279.2	3747325.4	448.0	0.00	3.95	1.86	YES
L0004238	0	0.14620E-07	478279.2	3747316.9	448.0	0.00	3.95	1.86	YES
L0004239	0	0.14620E-07	478279.3	3747308.4	448.0	0.00	3.95	1.86	YES
L0004240	0	0.14620E-07	478279.4	3747299.9	448.0	0.00	3.95	1.86	YES
L0004241	0	0.14620E-07	478279.5	3747291.4	448.0	0.00	3.95	1.86	YES
L0004242	0	0.14620E-07	478279.6	3747282.9	448.0	0.00	3.95	1.86	YES
L0004243	0	0.14620E-07	478279.7	3747274.4	448.0	0.00	3.95	1.86	YES
L0004244	0	0.14620E-07	478279.8	3747265.9	448.0	0.00	3.95	1.86	YES
L0004245	0	0.14620E-07	478279.9	3747257.4	448.0	0.00	3.95	1.86	YES
L0004246	0	0.14620E-07	478280.0	3747248.9	448.0	0.00	3.95	1.86	YES
L0004247	0	0.14620E-07	478280.1	3747240.4	448.0	0.00	3.95	1.86	YES
L0004248	0	0.14620E-07	478280.2	3747231.9	448.0	0.00	3.95	1.86	YES
L0004249	0	0.14620E-07	478280.3	3747223.4	448.0	0.00	3.95	1.86	YES
L0004250	0	0.14620E-07	478280.4	3747214.9	448.0	0.00	3.95	1.86	YES
L0004251	0	0.14620E-07	478280.5	3747206.4	448.0	0.00	3.95	1.86	YES
L0004252	0	0.14620E-07	478280.6	3747197.9	448.0	0.00	3.95	1.86	YES
L0004253	0	0.14620E-07	478280.7	3747189.4	448.0	0.00	3.95	1.86	YES
L0004254	0	0.14620E-07	478280.8	3747180.9	448.0	0.00	3.95	1.86	YES
L0004255	0	0.14620E-07	478280.9	3747172.4	448.0	0.00	3.95	1.86	YES
L0004256	0	0.14620E-07	478281.0	3747163.9	448.0	0.00	3.95	1.86	YES
L0004257	0	0.14620E-07	478281.1	3747155.4	448.0	0.00	3.95	1.86	YES
L0004258	0	0.14620E-07	478281.2	3747146.9	448.0	0.00	3.95	1.86	YES
L0004259	0	0.14620E-07	478281.3	3747138.4	448.0	0.00	3.95	1.86	YES
L0004260	0	0.14620E-07	478281.4	3747129.9	448.0	0.00	3.95	1.86	YES
L0004261	0	0.14620E-07	478281.5	3747121.4	448.0	0.00	3.95	1.86	YES
L0004262	0	0.14620E-07	478281.6	3747112.9	448.0	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004263	0	0.14620E-07	478281.7	3747104.4	448.0	0.00	3.95	1.86	YES	
L0004264	0	0.14620E-07	478281.8	3747095.9	448.0	0.00	3.95	1.86	YES	
L0004265	0	0.14620E-07	478281.9	3747087.4	448.0	0.00	3.95	1.86	YES	
L0004266	0	0.14620E-07	478282.0	3747078.9	448.0	0.00	3.95	1.86	YES	
L0004267	0	0.14620E-07	478282.1	3747070.4	448.0	0.00	3.95	1.86	YES	
L0004268	0	0.14620E-07	478282.2	3747061.9	448.0	0.00	3.95	1.86	YES	
L0004269	0	0.14620E-07	478282.3	3747053.4	448.0	0.00	3.95	1.86	YES	
L0004270	0	0.14620E-07	478282.4	3747044.9	448.0	0.00	3.95	1.86	YES	
L0004271	0	0.14620E-07	478282.5	3747036.5	448.0	0.00	3.95	1.86	YES	
L0004272	0	0.14620E-07	478282.6	3747028.0	448.0	0.00	3.95	1.86	YES	
L0004273	0	0.14620E-07	478282.7	3747019.5	448.0	0.00	3.95	1.86	YES	
L0004274	0	0.14620E-07	478282.8	3747011.0	448.0	0.00	3.95	1.86	YES	
L0004275	0	0.14620E-07	478282.9	3747002.5	448.0	0.00	3.95	1.86	YES	
L0004276	0	0.14620E-07	478283.0	3746994.0	448.0	0.00	3.95	1.86	YES	
L0004277	0	0.14620E-07	478283.1	3746985.5	448.0	0.00	3.95	1.86	YES	

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L0004278	0	0.14620E-07	478283.2	3746977.0	448.0	0.00	3.95	1.86	YES
L0004279	0	0.14620E-07	478283.3	3746968.5	448.0	0.00	3.95	1.86	YES
L0004280	0	0.14620E-07	478283.4	3746960.0	448.0	0.00	3.95	1.86	YES
L0004281	0	0.14620E-07	478283.5	3746951.5	448.0	0.00	3.95	1.86	YES
L0004282	0	0.14620E-07	478283.5	3746943.0	448.0	0.00	3.95	1.86	YES
L0004283	0	0.14620E-07	478283.6	3746934.5	448.0	0.00	3.95	1.86	YES
L0004284	0	0.14620E-07	478283.7	3746926.0	448.0	0.00	3.95	1.86	YES
L0004285	0	0.14620E-07	478283.8	3746917.5	448.0	0.00	3.95	1.86	YES
L0004286	0	0.14620E-07	478283.9	3746909.0	448.0	0.00	3.95	1.86	YES
L0004287	0	0.14620E-07	478284.0	3746900.5	448.0	0.00	3.95	1.86	YES
L0004288	0	0.14620E-07	478284.1	3746892.0	448.0	0.00	3.95	1.86	YES
L0004289	0	0.14620E-07	478284.2	3746883.5	448.0	0.00	3.95	1.86	YES
L0004290	0	0.14620E-07	478284.3	3746875.0	448.0	0.00	3.95	1.86	YES
L0004291	0	0.14620E-07	478284.4	3746866.5	448.0	0.00	3.95	1.86	YES
L0004292	0	0.14620E-07	478284.5	3746858.0	447.9	0.00	3.95	1.86	YES
L0004293	0	0.14620E-07	478284.6	3746849.5	447.7	0.00	3.95	1.86	YES
L0004294	0	0.14620E-07	478284.7	3746841.0	447.6	0.00	3.95	1.86	YES
L0004295	0	0.14620E-07	478284.8	3746832.5	447.4	0.00	3.95	1.86	YES
L0004296	0	0.14620E-07	478284.9	3746824.0	447.3	0.00	3.95	1.86	YES
L0004297	0	0.14620E-07	478285.0	3746815.5	447.2	0.00	3.95	1.86	YES
L0004298	0	0.14620E-07	478285.1	3746807.0	447.0	0.00	3.95	1.86	YES
L0004299	0	0.14620E-07	478285.2	3746798.5	447.0	0.00	3.95	1.86	YES
L0004300	0	0.14620E-07	478285.3	3746790.0	447.0	0.00	3.95	1.86	YES
L0004301	0	0.14620E-07	478285.4	3746781.5	447.0	0.00	3.95	1.86	YES
L0004302	0	0.14620E-07	478285.5	3746773.0	447.0	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004303	0	0.50080E-08	478283.7	3746787.2	447.0	0.00	3.95	1.86	YES	
L0004304	0	0.50080E-08	478283.6	3746795.7	447.0	0.00	3.95	1.86	YES	
L0004305	0	0.50080E-08	478283.4	3746804.2	447.0	0.00	3.95	1.86	YES	
L0004306	0	0.50080E-08	478283.3	3746812.7	447.1	0.00	3.95	1.86	YES	
L0004307	0	0.50080E-08	478283.1	3746821.2	447.3	0.00	3.95	1.86	YES	
L0004308	0	0.50080E-08	478282.9	3746829.7	447.4	0.00	3.95	1.86	YES	
L0004309	0	0.50080E-08	478282.8	3746838.2	447.6	0.00	3.95	1.86	YES	
L0004310	0	0.50080E-08	478282.6	3746846.7	447.7	0.00	3.95	1.86	YES	
L0004311	0	0.50080E-08	478282.5	3746855.2	447.9	0.00	3.95	1.86	YES	
L0004312	0	0.50080E-08	478282.3	3746863.7	448.0	0.00	3.95	1.86	YES	
L0004313	0	0.50080E-08	478282.1	3746872.2	448.0	0.00	3.95	1.86	YES	
L0004314	0	0.50080E-08	478282.0	3746880.7	448.0	0.00	3.95	1.86	YES	
L0004315	0	0.50080E-08	478281.8	3746889.2	448.0	0.00	3.95	1.86	YES	
L0004316	0	0.50080E-08	478281.6	3746897.7	448.0	0.00	3.95	1.86	YES	
L0004317	0	0.50080E-08	478281.5	3746906.2	448.0	0.00	3.95	1.86	YES	
L0004318	0	0.50080E-08	478281.3	3746914.7	448.0	0.00	3.95	1.86	YES	
L0004319	0	0.50080E-08	478281.2	3746923.2	448.0	0.00	3.95	1.86	YES	
L0004320	0	0.50080E-08	478281.0	3746931.7	448.0	0.00	3.95	1.86	YES	
L0004321	0	0.50080E-08	478280.8	3746940.2	448.0	0.00	3.95	1.86	YES	
L0004322	0	0.50080E-08	478280.7	3746948.7	448.0	0.00	3.95	1.86	YES	
L0004323	0	0.50080E-08	478280.5	3746957.2	448.0	0.00	3.95	1.86	YES	
L0004324	0	0.50080E-08	478280.4	3746965.6	448.0	0.00	3.95	1.86	YES	
L0004325	0	0.50080E-08	478288.9	3746965.6	448.0	0.00	3.95	1.86	YES	
L0004326	0	0.50080E-08	478297.4	3746965.5	448.0	0.00	3.95	1.86	YES	
L0004327	0	0.50080E-08	478305.9	3746965.4	448.0	0.00	3.95	1.86	YES	

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L0004328	0	0.50080E-08	478314.4	3746965.3	448.0	0.00	3.95	1.86	YES
L0004329	0	0.50080E-08	478322.9	3746965.3	448.0	0.00	3.95	1.86	YES
L0004330	0	0.50080E-08	478331.4	3746965.2	448.0	0.00	3.95	1.86	YES
L0004331	0	0.50080E-08	478339.9	3746965.1	448.0	0.00	3.95	1.86	YES
L0004332	0	0.50080E-08	478348.4	3746965.0	448.0	0.00	3.95	1.86	YES
L0004333	0	0.50080E-08	478356.9	3746965.0	448.0	0.00	3.95	1.86	YES
L0004334	0	0.50080E-08	478365.4	3746964.9	447.9	0.00	3.95	1.86	YES
L0004335	0	0.50080E-08	478373.9	3746964.8	447.7	0.00	3.95	1.86	YES
L0004336	0	0.50080E-08	478382.4	3746964.8	447.5	0.00	3.95	1.86	YES
L0004337	0	0.50080E-08	478390.9	3746964.7	447.3	0.00	3.95	1.86	YES
L0004338	0	0.50080E-08	478399.4	3746964.6	447.2	0.00	3.95	1.86	YES
L0004339	0	0.50080E-08	478407.9	3746964.5	447.1	0.00	3.95	1.86	YES
L0004340	0	0.50080E-08	478416.4	3746964.5	447.0	0.00	3.95	1.86	YES
L0004341	0	0.50080E-08	478424.9	3746964.4	447.0	0.00	3.95	1.86	YES
L0004342	0	0.50080E-08	478433.4	3746964.3	447.0	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004343	0	0.50080E-08	478441.9	3746964.2	447.0	0.00	3.95	1.86	YES	
L0004344	0	0.50080E-08	478450.4	3746964.2	447.0	0.00	3.95	1.86	YES	
L0004345	0	0.50080E-08	478458.9	3746964.1	447.0	0.00	3.95	1.86	YES	
L0004346	0	0.50080E-08	478467.4	3746964.0	447.0	0.00	3.95	1.86	YES	
L0004347	0	0.50080E-08	478475.9	3746963.9	447.0	0.00	3.95	1.86	YES	
L0004348	0	0.50080E-08	478484.4	3746963.9	447.0	0.00	3.95	1.86	YES	
L0004349	0	0.50080E-08	478492.9	3746963.8	447.0	0.00	3.95	1.86	YES	
L0004350	0	0.50080E-08	478501.4	3746963.7	447.0	0.00	3.95	1.86	YES	
L0004351	0	0.50080E-08	478509.9	3746963.7	447.0	0.00	3.95	1.86	YES	
L0004352	0	0.50080E-08	478518.4	3746963.6	447.0	0.00	3.95	1.86	YES	
L0004353	0	0.50080E-08	478526.9	3746963.5	447.0	0.00	3.95	1.86	YES	
L0004354	0	0.50080E-08	478535.4	3746963.4	447.0	0.00	3.95	1.86	YES	
L0004355	0	0.50080E-08	478543.9	3746963.4	447.0	0.00	3.95	1.86	YES	
L0004356	0	0.50080E-08	478552.4	3746963.3	447.0	0.00	3.95	1.86	YES	
L0004357	0	0.50080E-08	478560.9	3746963.2	447.0	0.00	3.95	1.86	YES	
L0004358	0	0.50080E-08	478569.4	3746963.1	447.0	0.00	3.95	1.86	YES	
L0004359	0	0.50080E-08	478577.9	3746963.1	447.0	0.00	3.95	1.86	YES	
L0004360	0	0.50080E-08	478586.4	3746963.0	447.0	0.00	3.95	1.86	YES	
L0004361	0	0.50080E-08	478594.9	3746962.9	447.0	0.00	3.95	1.86	YES	
L0004362	0	0.50080E-08	478603.4	3746962.9	447.0	0.00	3.95	1.86	YES	
L0004363	0	0.50080E-08	478611.9	3746962.8	447.0	0.00	3.95	1.86	YES	
L0004364	0	0.50080E-08	478620.4	3746962.7	447.0	0.00	3.95	1.86	YES	
L0004365	0	0.50080E-08	478628.9	3746962.6	447.0	0.00	3.95	1.86	YES	
L0004366	0	0.50080E-08	478637.4	3746962.6	447.0	0.00	3.95	1.86	YES	
L0004367	0	0.50080E-08	478645.9	3746962.5	447.0	0.00	3.95	1.86	YES	
L0004368	0	0.50080E-08	478654.4	3746962.4	447.0	0.00	3.95	1.86	YES	
L0004369	0	0.50080E-08	478662.9	3746962.3	446.9	0.00	3.95	1.86	YES	
L0004370	0	0.50080E-08	478671.4	3746962.3	446.7	0.00	3.95	1.86	YES	
L0004371	0	0.50080E-08	478679.9	3746962.2	446.5	0.00	3.95	1.86	YES	
L0004372	0	0.50080E-08	478688.4	3746962.1	446.2	0.00	3.95	1.86	YES	
L0004373	0	0.50080E-08	478696.9	3746962.0	446.2	0.00	3.95	1.86	YES	
L0004374	0	0.50080E-08	478705.4	3746962.0	446.2	0.00	3.95	1.86	YES	
L0004375	0	0.50080E-08	478713.9	3746961.9	446.2	0.00	3.95	1.86	YES	
L0004376	0	0.50080E-08	478722.4	3746961.8	446.2	0.00	3.95	1.86	YES	
L0004377	0	0.50080E-08	478730.9	3746961.8	446.1	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

L0004378	0	0.50080E-08	478739.4	3746961.7	446.1	0.00	3.95	1.86	YES
L0004379	0	0.50080E-08	478747.9	3746961.6	446.0	0.00	3.95	1.86	YES
L0004380	0	0.50080E-08	478756.4	3746961.5	446.0	0.00	3.95	1.86	YES
L0004381	0	0.50080E-08	478764.9	3746961.5	446.0	0.00	3.95	1.86	YES
L0004382	0	0.50080E-08	478773.4	3746961.4	446.0	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004383	0	0.50080E-08	478781.9	3746961.3	446.0	0.00	3.95	1.86	YES	
L0004384	0	0.50080E-08	478790.4	3746961.2	446.0	0.00	3.95	1.86	YES	
L0004385	0	0.50080E-08	478798.9	3746961.2	446.0	0.00	3.95	1.86	YES	
L0004386	0	0.50080E-08	478807.4	3746961.1	446.0	0.00	3.95	1.86	YES	
L0004387	0	0.50080E-08	478815.9	3746961.0	446.0	0.00	3.95	1.86	YES	
L0004388	0	0.50080E-08	478824.4	3746960.9	446.0	0.00	3.95	1.86	YES	
L0004389	0	0.50080E-08	478832.9	3746960.9	446.0	0.00	3.95	1.86	YES	
L0004390	0	0.50080E-08	478841.4	3746960.8	446.0	0.00	3.95	1.86	YES	
L0004391	0	0.50080E-08	478849.9	3746960.7	446.0	0.00	3.95	1.86	YES	
L0004392	0	0.50080E-08	478858.4	3746960.7	446.0	0.00	3.95	1.86	YES	
L0004393	0	0.50080E-08	478866.9	3746960.6	446.0	0.00	3.95	1.86	YES	
L0004394	0	0.50080E-08	478875.4	3746960.5	446.0	0.00	3.95	1.86	YES	
L0004395	0	0.50080E-08	478883.9	3746960.4	446.0	0.00	3.95	1.86	YES	
L0004396	0	0.50080E-08	478892.4	3746960.4	446.0	0.00	3.95	1.86	YES	
L0004397	0	0.50080E-08	478900.9	3746960.3	446.0	0.00	3.95	1.86	YES	
L0004398	0	0.50080E-08	478909.4	3746960.2	446.0	0.00	3.95	1.86	YES	
L0004399	0	0.50080E-08	478917.9	3746960.1	446.0	0.00	3.95	1.86	YES	
L0004400	0	0.50080E-08	478926.4	3746960.1	446.0	0.00	3.95	1.86	YES	
L0004401	0	0.50080E-08	478934.9	3746960.0	446.0	0.00	3.95	1.86	YES	
L0004402	0	0.50080E-08	478943.4	3746959.9	446.0	0.00	3.95	1.86	YES	
L0004403	0	0.50080E-08	478951.9	3746959.9	446.0	0.00	3.95	1.86	YES	
L0004404	0	0.50080E-08	478960.4	3746959.8	446.0	0.00	3.95	1.86	YES	
L0004405	0	0.50080E-08	478968.9	3746959.7	446.0	0.00	3.95	1.86	YES	
L0004406	0	0.50080E-08	478977.4	3746959.6	446.0	0.00	3.95	1.86	YES	
L0004407	0	0.50080E-08	478985.9	3746959.6	446.0	0.00	3.95	1.86	YES	
L0004408	0	0.50080E-08	478994.4	3746959.5	446.0	0.00	3.95	1.86	YES	
L0004409	0	0.50080E-08	479002.9	3746959.4	446.0	0.00	3.95	1.86	YES	
L0004410	0	0.50080E-08	479011.4	3746959.3	446.0	0.00	3.95	1.86	YES	
L0004411	0	0.50080E-08	479019.9	3746959.3	446.0	0.00	3.95	1.86	YES	
L0004412	0	0.50080E-08	479028.4	3746959.2	446.0	0.00	3.95	1.86	YES	
L0004413	0	0.50080E-08	479036.9	3746959.1	446.0	0.00	3.95	1.86	YES	
L0004414	0	0.50080E-08	479045.4	3746959.0	446.0	0.00	3.95	1.86	YES	
L0004415	0	0.50080E-08	479053.9	3746959.0	446.0	0.00	3.95	1.86	YES	
L0004416	0	0.50080E-08	479062.4	3746958.9	446.0	0.00	3.95	1.86	YES	
L0004417	0	0.50080E-08	479070.9	3746958.8	446.0	0.00	3.95	1.86	YES	
L0004418	0	0.50080E-08	479079.4	3746958.8	446.0	0.00	3.95	1.86	YES	
L0004419	0	0.16980E-05	477927.9	3746810.3	448.0	0.00	3.95	1.86	YES	
L0004420	0	0.16980E-05	477936.4	3746810.3	448.0	0.00	3.95	1.86	YES	
L0004421	0	0.16980E-05	477944.9	3746810.3	448.0	0.00	3.95	1.86	YES	
L0004422	0	0.16980E-05	477953.4	3746810.2	448.0	0.00	3.95	1.86	YES	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004423	0	0.16980E-05	477961.9	3746810.2	448.0	0.00	3.95	1.86	YES	
L0004424	0	0.16980E-05	477970.4	3746810.1	448.0	0.00	3.95	1.86	YES	
L0004425	0	0.16980E-05	477978.9	3746810.1	448.0	0.00	3.95	1.86	YES	
L0004426	0	0.16980E-05	477987.4	3746810.1	448.0	0.00	3.95	1.86	YES	
L0004427	0	0.16980E-05	477995.9	3746810.0	448.0	0.00	3.95	1.86	YES	
L0004428	0	0.16980E-05	478004.4	3746810.0	448.0	0.00	3.95	1.86	YES	
L0004429	0	0.16980E-05	478012.9	3746809.9	448.0	0.00	3.95	1.86	YES	
L0004430	0	0.16980E-05	478021.4	3746809.9	448.0	0.00	3.95	1.86	YES	
L0004431	0	0.16980E-05	478029.9	3746809.9	448.0	0.00	3.95	1.86	YES	
L0004432	0	0.16980E-05	478038.4	3746809.8	448.0	0.00	3.95	1.86	YES	
L0004433	0	0.16980E-05	478046.9	3746809.8	448.0	0.00	3.95	1.86	YES	
L0004434	0	0.16980E-05	478055.4	3746809.7	448.0	0.00	3.95	1.86	YES	
L0004435	0	0.16980E-05	478063.9	3746809.7	448.0	0.00	3.95	1.86	YES	
L0004436	0	0.16980E-05	478072.4	3746809.7	448.0	0.00	3.95	1.86	YES	
L0004437	0	0.16980E-05	478080.9	3746809.6	448.0	0.00	3.95	1.86	YES	
L0004438	0	0.16980E-05	478089.4	3746809.6	448.0	0.00	3.95	1.86	YES	
L0004439	0	0.16980E-05	478097.9	3746809.6	448.0	0.00	3.95	1.86	YES	
L0004440	0	0.16980E-05	478106.4	3746809.5	448.0	0.00	3.95	1.86	YES	
L0004441	0	0.16980E-05	478114.9	3746809.5	448.0	0.00	3.95	1.86	YES	
L0004442	0	0.16980E-05	478123.4	3746809.4	448.0	0.00	3.95	1.86	YES	
L0004443	0	0.16980E-05	478131.9	3746809.4	448.0	0.00	3.95	1.86	YES	
L0004444	0	0.16980E-05	478140.4	3746809.4	448.0	0.00	3.95	1.86	YES	
L0004445	0	0.16980E-05	478148.9	3746809.3	448.0	0.00	3.95	1.86	YES	
L0004446	0	0.16980E-05	478157.4	3746809.3	448.0	0.00	3.95	1.86	YES	
L0004447	0	0.16980E-05	478165.9	3746809.2	448.0	0.00	3.95	1.86	YES	
L0004448	0	0.16980E-05	478174.4	3746809.2	448.0	0.00	3.95	1.86	YES	
L0004449	0	0.36420E-06	478266.8	3746792.2	447.1	0.00	3.95	1.86	YES	
L0004450	0	0.36420E-06	478258.3	3746792.2	447.2	0.00	3.95	1.86	YES	
L0004451	0	0.36420E-06	478249.8	3746792.2	447.4	0.00	3.95	1.86	YES	
L0004452	0	0.36420E-06	478241.3	3746792.1	447.5	0.00	3.95	1.86	YES	
L0004453	0	0.36420E-06	478232.8	3746792.1	447.6	0.00	3.95	1.86	YES	
L0004454	0	0.36420E-06	478224.3	3746792.1	447.8	0.00	3.95	1.86	YES	
L0004455	0	0.36420E-06	478215.8	3746792.1	447.9	0.00	3.95	1.86	YES	
L0004456	0	0.36420E-06	478207.3	3746792.0	448.0	0.00	3.95	1.86	YES	
L0004457	0	0.36420E-06	478198.8	3746792.0	448.0	0.00	3.95	1.86	YES	
L0004458	0	0.36420E-06	478190.3	3746792.0	448.0	0.00	3.95	1.86	YES	
L0004459	0	0.36420E-06	478181.8	3746792.0	448.0	0.00	3.95	1.86	YES	
L0004460	0	0.36420E-06	478173.3	3746792.0	448.0	0.00	3.95	1.86	YES	
L0004461	0	0.36420E-06	478164.8	3746791.9	448.0	0.00	3.95	1.86	YES	
L0004462	0	0.36420E-06	478156.3	3746791.9	448.0	0.00	3.95	1.86	YES	

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc ***
06/30/16
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11:01:54

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

L0004463	0	0.36420E-06	478147.8	3746791.9	448.0	0.00	3.95	1.86	YES
L0004464	0	0.36420E-06	478139.3	3746791.9	448.0	0.00	3.95	1.86	YES
L0004465	0	0.36420E-06	478130.8	3746791.9	448.0	0.00	3.95	1.86	YES
L0004466	0	0.36420E-06	478122.3	3746791.9	448.0	0.00	3.95	1.86	YES
L0004467	0	0.36420E-06	478113.8	3746791.8	448.0	0.00	3.95	1.86	YES
L0004468	0	0.36420E-06	478105.3	3746791.8	448.0	0.00	3.95	1.86	YES
L0004469	0	0.36420E-06	478096.8	3746791.8	448.0	0.00	3.95	1.86	YES
L0004470	0	0.36420E-06	478088.3	3746791.8	448.0	0.00	3.95	1.86	YES
L0004471	0	0.36420E-06	478079.8	3746791.8	448.0	0.00	3.95	1.86	YES
L0004472	0	0.36420E-06	478071.3	3746791.8	448.0	0.00	3.95	1.86	YES
L0004473	0	0.36420E-06	478062.8	3746791.8	448.0	0.00	3.95	1.86	YES
L0004474	0	0.36420E-06	478054.3	3746791.7	448.0	0.00	3.95	1.86	YES
L0004475	0	0.36420E-06	478045.8	3746791.7	448.0	0.00	3.95	1.86	YES
L0004476	0	0.36420E-06	478037.3	3746791.7	448.0	0.00	3.95	1.86	YES
L0004477	0	0.36420E-06	478028.8	3746791.7	448.0	0.00	3.95	1.86	YES
L0004478	0	0.36420E-06	478020.3	3746791.7	448.0	0.00	3.95	1.86	YES
L0004479	0	0.36420E-06	478011.8	3746791.7	448.0	0.00	3.95	1.86	YES
L0004480	0	0.36420E-06	478003.3	3746791.7	448.0	0.00	3.95	1.86	YES
L0004481	0	0.36420E-06	477994.8	3746791.6	448.0	0.00	3.95	1.86	YES
L0004482	0	0.36420E-06	477986.3	3746791.6	448.0	0.00	3.95	1.86	YES
L0004483	0	0.36420E-06	477977.8	3746791.6	448.0	0.00	3.95	1.86	YES
L0004484	0	0.36420E-06	477969.3	3746791.6	448.0	0.00	3.95	1.86	YES
L0004485	0	0.36420E-06	477960.8	3746791.6	448.0	0.00	3.95	1.86	YES
L0004486	0	0.36420E-06	477952.3	3746791.6	448.0	0.00	3.95	1.86	YES
L0004487	0	0.36420E-06	477943.8	3746791.6	448.0	0.00	3.95	1.86	YES
L0004488	0	0.36420E-06	477935.3	3746791.5	448.0	0.00	3.95	1.86	YES
L0004489	0	0.36420E-06	477926.8	3746791.5	448.0	0.00	3.95	1.86	YES
L0004490	0	0.36420E-06	477918.3	3746791.5	448.0	0.00	3.95	1.86	YES
L0004491	0	0.36420E-06	477909.8	3746791.5	448.0	0.00	3.95	1.86	YES
L0004492	0	0.36420E-06	477901.3	3746791.5	448.0	0.00	3.95	1.86	YES
L0004493	0	0.36420E-06	477892.8	3746791.5	448.0	0.00	3.95	1.86	YES

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	L0003183 , L0003184 , L0003185 , L0003186 , L0003187 , L0003188 , L0003189 , L0003190 , L0003191 , L0003192 , L0003193 , L0003194 , L0003195 , L0003196 , L0003197 , L0003198 , L0003199 , L0003200 , L0003201 , L0003202 , L0003203 , L0003204 , L0003205 , L0003206 , L0003207 , L0003208 , L0003209 , L0003210 , L0003211 , L0003212 , L0003213 , L0003214 , L0003215 , L0003216 , L0003217 , L0003218 , L0003219 , L0003220 , L0003221 , L0003222 , L0003223 , L0003224 , L0003225 , L0003226 , L0003227 , L0003228 , L0003229 , L0003230 , L0003231 , L0003232 , L0003233 , L0003234 , L0003235 , L0003236 , L0003237 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
L0003238 ,
L0003239 , L0003240 , L0003241 , L0003242 , L0003243 , L0003244 , L0003245 , L0003246 ,
L0003247 , L0003248 , L0003249 , L0003250 , L0003251 , L0003252 , L0003253 , L0003254 ,
L0003255 , L0003256 , L0003257 , L0003258 , L0003259 , L0003260 , L0003261 , L0003262 ,
L0003263 , L0003264 , L0003265 , L0003266 , L0003267 , L0003268 , L0003269 , L0003270 ,
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L0003287 , L0003288 , L0003289 , L0003290 , L0003291 , L0003292 , L0003293 , L0003294 ,
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L0003335 , L0003336 , L0003337 , L0003338 , L0003339 , L0003340 , L0003341 , L0003342 ,
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 11:01:54

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

L0003343 , L0003344 , L0003345 , L0003346 , L0003347 , L0003348 , L0003349 , L0003350 ,
L0003351 , L0003352 , L0003353 , L0003354 , L0003355 , L0003356 , L0003357 , L0003358 ,
L0003359 , L0003360 , L0003361 , L0003362 , L0003363 , L0003364 , L0003365 , L0003366 ,
L0003367 , L0003368 , L0003369 , L0003370 , L0003371 , L0003372 , L0003373 , L0003374 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
L0003375 , L0003376 , L0003377 , L0003378 , L0003379 , L0003380 , L0003381 , L0003382 ,
L0003383 , L0003384 , L0003385 , L0003386 , L0003387 , L0003388 , L0003389 , L0003390 ,
L0003391 , L0003392 , L0003393 , L0003394 , L0003395 , L0003396 , L0003397 , L0003398 ,
L0003399 , L0003400 , L0003401 , L0003402 , L0003403 , L0003404 , L0003405 , L0003406 ,
L0003407 , L0003408 , L0003409 , L0003410 , L0003411 , L0003412 , L0003413 , L0003414 ,
L0003415 , L0003416 , L0003417 , L0003418 , L0003419 , L0003420 , L0003421 , L0003422 ,
L0003423 , L0003424 , L0003425 , L0003426 , L0003427 , L0003428 , L0003429 , L0003430 ,
L0003431 , L0003432 , L0003433 , L0003434 , L0003435 , L0003436 , L0003437 , L0003438 ,
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L0003463 , L0003464 , L0003465 , L0003466 , L0003467 , L0003468 , L0003469 , L0003470 ,
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L0003479 , L0003480 , L0003481 , L0003482 , L0003483 , L0003484 , L0003485 , L0003486 ,
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06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 11:01:54

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
**MODELOPTs: RegDFAULT CONC ELEV URBAN

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
11:01:54

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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*** AERMET - VERSION 14134 *** *** ***
11:01:54

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   PAGE  46
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Residential
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

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L0003511 , L0003512 , L0003513 , L0003514 , L0003515 , L0003516 , L0003517 , L0003518 ,
L0003519 , L0003520 , L0003521 , L0003522 , L0003523 , L0003524 , L0003525 , L0003526 ,
L0003527 , L0003528 , L0003529 , L0003530 , L0003531 , L0003532 , L0003533 , L0003534 ,
L0003535 , L0003536 , L0003537 , L0003538 , L0003539 , L0003540 , L0003541 , L0003542 ,
L0003543 , L0003544 , L0003545 , L0003546 , L0003547 , L0003548 , L0003549 , L0003550 ,
L0003551 , L0003552 , L0003553 , L0003554 , L0003555 , L0003556 , L0003557 , L0003558 ,
L0003559 , L0003560 , L0003561 , L0003562 , L0003563 , L0003564 , L0003565 , L0003566 ,
L0003567 , L0003568 , L0003569 , L0003570 , L0003571 , L0003572 , L0003573 , L0003574 ,
L0003575 , L0003576 , L0003577 , L0003578 , L0003579 , L0003580 , L0003581 , L0003582 ,
L0003583 , L0003584 , L0003585 , L0003586 , L0003587 , L0003588 , L0003589 , L0003590 ,
L0003591 , L0003592 , L0003593 , L0003594 , L0003595 , L0003596 , L0003597 , L0003598 ,
L0003599 , L0003600 , L0003601 , L0003602 , L0003603 , L0003604 , L0003605 , L0003606 ,
L0003607 , L0003608 , L0003609 , L0003610 , L0003611 , L0003612 , L0003613 , L0003614 ,
L0003615 , L0003616 , L0003617 , L0003618 , L0003619 , L0003620 , L0003621 , L0003622 ,
L0003623 , L0003624 , L0003625 , L0003626 , L0003627 , L0003628 , L0003629 , L0003630 ,
L0003631 , L0003632 , L0003633 , L0003634 , L0003635 , L0003636 , L0003637 , L0003638 ,
L0003639 , L0003640 , L0003641 , L0003642 , L0003643 , L0003644 , L0003645 , L0003646 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

L0003647 , L0003648 , L0003649 , L0003650 , L0003651 , L0003652 , L0003653 , L0003654 ,

L0003655 , L0003656 , L0003657 , L0003658 , L0003659 , L0003660 , L0003661 , L0003662 ,

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0003663 , L0003664 , L0003665 , L0003666 , L0003667 , L0003668 , L0003669 , L0003670 ,

L0003671 , L0003672 , L0003673 , L0003674 , L0003675 , L0003676 , L0003677 , L0003678 ,

L0003679 , L0003680 , L0003681 , L0003682 , L0003683 , L0003684 , L0003685 , L0003686 ,

L0003687 , L0003688 , L0003689 , L0003690 , L0003691 , L0003692 , L0003693 , L0003694 ,

L0003695 , L0003696 , L0003697 , L0003698 , L0003699 , L0003700 , L0003701 , L0003702 ,

L0003703 , L0003704 , L0003705 , L0003706 , L0003707 , L0003708 , L0003709 , L0003710 ,

L0003711 , L0003712 , L0003713 , L0003714 , L0003715 , L0003716 , L0003717 , L0003718 ,

L0003719 , L0003720 , L0003721 , L0003722 , L0003723 , L0003724 , L0003725 , L0003726 ,

L0003727 , L0003728 , L0003729 , L0003730 , L0003731 , L0003732 , L0003733 , L0003734 ,

L0003735 , L0003736 , L0003737 , L0003738 , L0003739 , L0003740 , L0003741 , L0003742 ,

L0003743 , L0003744 , L0003745 , L0003746 , L0003747 , L0003748 , L0003749 , L0003750 ,

L0003751 , L0003752 , L0003753 , L0003754 , L0003755 , L0003756 , L0003757 , L0003758 ,

L0003759 , L0003760 , L0003761 , L0003762 , L0003763 , L0003764 , L0003765 , L0003766 ,

L0003767 , L0003768 , L0003769 , L0003770 , L0003771 , L0003772 , L0003773 , L0003774 ,

L0003775 , L0003776 , L0003777 , L0003778 , L0003779 , L0003780 , L0003781 , L0003782 ,

L0003783 , L0003784 , L0003785 , L0003786 , L0003787 , L0003788 , L0003789 , L0003790 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

L0003791 , L0003792 , L0003793 , L0003794 , L0003795 , L0003796 , L0003797 , L0003798 ,

L0003799 , L0003800 , L0003801 , L0003802 , L0003803 , L0003804 , L0003805 , L0003806 ,

L0003807 , L0003808 , L0003809 , L0003810 , L0003811 , L0003812 , L0003813 , L0003814 ,

L0003815 , L0003816 , L0003817 , L0003818 , L0003819 , L0003820 , L0003821 , L0003822 ,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 11:01:54

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0003823 , L0003824 , L0003825 , L0003826 , L0003827 , L0003828 , L0003829 , L0003830 ,

L0003831 , L0003832 , L0003833 , L0003834 , L0003835 , L0003836 , L0003837 , L0003838 ,

L0003839 , L0003840 , L0003841 , L0003842 , L0003843 , L0003844 , L0003845 , L0003846 ,

L0003847 , L0003848 , L0003849 , L0003850 , L0003851 , L0003852 , L0003853 , L0003854 ,

L0003855 , L0003856 , L0003857 , L0003858 , L0003859 , L0003860 , L0003861 , L0003862 ,

L0003863 , L0003864 , L0003865 , L0003866 , L0003867 , L0003868 , L0003869 , L0003870 ,

L0003871 , L0003872 , L0003873 , L0003874 , L0003875 , L0003876 , L0003877 , L0003878 ,

L0003879 , L0003880 , L0003881 , L0003882 , L0003883 , L0003884 , L0003885 , L0003886 ,

L0003887 , L0003888 , L0003889 , L0003890 , L0003891 , L0003892 , L0003893 , L0003894 ,

L0003895 , L0003896 , L0003897 , L0003898 , L0003899 , L0003900 , L0003901 , L0003902 ,

L0003903 , L0003904 , L0003905 , L0003906 , L0003907 , L0003908 , L0003909 , L0003910 ,

L0003911 , L0003912 , L0003913 , L0003914 , L0003915 , L0003916 , L0003917 , L0003918 ,

L0003919 , L0003920 , L0003921 , L0003922 , L0003923 , L0003924 , L0003925 , L0003926 ,

L0003927 , L0003928 , L0003929 , L0003930 , L0003931 , L0003932 , L0003933 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
L0003934 ,
L0003935 , L0003936 , L0003937 , L0003938 , L0003939 , L0003940 , L0003941 , L0003942 ,
L0003943 , L0003944 , L0003945 , L0003946 , L0003947 , L0003948 , L0003949 , L0003950 ,
L0003951 , L0003952 , L0003953 , L0003954 , L0003955 , L0003956 , L0003957 , L0003958 ,
L0003959 , L0003960 , L0003961 , L0003962 , L0003963 , L0003964 , L0003965 , L0003966 ,
L0003967 , L0003968 , L0003969 , L0003970 , L0003971 , L0003972 , L0003973 , L0003974 ,
L0003975 , L0003976 , L0003977 , L0003978 , L0003979 , L0003980 , L0003981 , L0003982 ,
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 11:01:54

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0003983 , L0003984 , L0003985 , L0003986 , L0003987 , L0003988 , L0003989 , L0003990 ,
L0003991 , L0003992 , L0003993 , L0003994 , L0003995 , L0003996 , L0003997 , L0003998 ,
L0003999 , L0004000 , L0004001 , L0004002 , L0004003 , L0004004 , L0004005 , L0004006 ,
L0004007 , L0004008 , L0004009 , L0004010 , L0004011 , L0004012 , L0004013 , L0004014 ,
L0004015 , L0004016 , L0004017 , L0004018 , L0004019 , L0004020 , L0004021 , L0004022 ,
L0004023 , L0004024 , L0004025 , L0004026 , L0004027 , L0004028 , L0004029 , L0004030 ,
L0004031 , L0004032 , L0004033 , L0004034 , L0004035 , L0004036 , L0004037 , L0004038 ,
L0004039 , L0004040 , L0004041 , L0004042 , L0004043 , L0004044 , L0004045 , L0004046 ,
L0004047 , L0004048 , L0004049 , L0004050 , L0004051 , L0004052 , L0004053 , L0004054 ,
L0004055 , L0004056 , L0004057 , L0004058 , L0004059 , L0004060 , L0004061 , L0004062 ,
L0004063 , L0004064 , L0004065 , L0004066 , L0004067 , L0004068 , L0004069 , L0004070 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
L0004071 , L0004072 , L0004073 , L0004074 , L0004075 , L0004076 , L0004077 , L0004078 ,
L0004079 , L0004080 , L0004081 , L0004082 , L0004083 , L0004084 , L0004085 , L0004086 ,
L0004087 , L0004088 , L0004089 , L0004090 , L0004091 , L0004092 , L0004093 , L0004094 ,
L0004095 , L0004096 , L0004097 , L0004098 , L0004099 , L0004100 , L0004101 , L0004102 ,
L0004103 , L0004104 , L0004105 , L0004106 , L0004107 , L0004108 , L0004109 , L0004110 ,
L0004111 , L0004112 , L0004113 , L0004114 , L0004115 , L0004116 , L0004117 , L0004118 ,
L0004119 , L0004120 , L0004121 , L0004122 , L0004123 , L0004124 , L0004125 , L0004126 ,
L0004127 , L0004128 , L0004129 , L0004130 , L0004131 , L0004132 , L0004133 , L0004134 ,
L0004135 , L0004136 , L0004137 , L0004138 , L0004139 , L0004140 , L0004141 , L0004142 ,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 11:01:54

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0004143 , L0004144 , L0004145 , L0004146 , L0004147 , L0004148 , L0004149 , L0004150 ,
L0004151 , L0004152 , L0004153 , L0004154 , L0004155 , L0004156 , L0004157 , L0004158 ,
L0004159 , L0004160 , L0004161 , L0004162 , L0004163 , L0004164 , L0004165 , L0004166 ,
L0004167 , L0004168 , L0004169 , L0004170 , L0004171 , L0004172 , L0004173 , L0004174 ,
L0004175 , L0004176 , L0004177 , L0004178 , L0004179 , L0004180 , L0004181 , L0004182 ,
L0004183 , L0004184 , L0004185 , L0004186 , L0004187 , L0004188 , L0004189 , L0004190 ,
L0004191 , L0004192 , L0004193 , L0004194 , L0004195 , L0004196 , L0004197 , L0004198 ,
L0004199 , L0004200 , L0004201 , L0004202 , L0004203 , L0004204 , L0004205 , L0004206 ,
L0004207 , L0004208 , L0004209 , L0004210 , L0004211 , L0004212 , L0004213 , L0004214 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0004215 , L0004216 , L0004217 , L0004218 , L0004219 , L0004220 , L0004221 , L0004222 ,
L0004223 , L0004224 , L0004225 , L0004226 , L0004227 , L0004228 , L0004229 , L0004230 ,
L0004231 , L0004232 , L0004233 , L0004234 , L0004235 , L0004236 , L0004237 , L0004238 ,
L0004239 , L0004240 , L0004241 , L0004242 , L0004243 , L0004244 , L0004245 , L0004246 ,
L0004247 , L0004248 , L0004249 , L0004250 , L0004251 , L0004252 , L0004253 , L0004254 ,
L0004255 , L0004256 , L0004257 , L0004258 , L0004259 , L0004260 , L0004261 , L0004262 ,
L0004263 , L0004264 , L0004265 , L0004266 , L0004267 , L0004268 , L0004269 , L0004270 ,
L0004271 , L0004272 , L0004273 , L0004274 , L0004275 , L0004276 , L0004277 , L0004278 ,
L0004279 , L0004280 , L0004281 , L0004282 , L0004283 , L0004284 , L0004285 , L0004286 ,
L0004287 , L0004288 , L0004289 , L0004290 , L0004291 , L0004292 , L0004293 , L0004294 ,
L0004295 , L0004296 , L0004297 , L0004298 , L0004299 , L0004300 , L0004301 , L0004302 ,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 11:01:54

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0004303 , L0004304 , L0004305 , L0004306 , L0004307 , L0004308 , L0004309 , L0004310 ,
L0004311 , L0004312 , L0004313 , L0004314 , L0004315 , L0004316 , L0004317 , L0004318 ,
L0004319 , L0004320 , L0004321 , L0004322 , L0004323 , L0004324 , L0004325 , L0004326 ,
L0004327 , L0004328 , L0004329 , L0004330 , L0004331 , L0004332 , L0004333 , L0004334 ,
L0004335 , L0004336 , L0004337 , L0004338 , L0004339 , L0004340 , L0004341 , L0004342 ,
L0004343 , L0004344 , L0004345 , L0004346 , L0004347 , L0004348 , L0004349 , L0004350 ,
L0004351 , L0004352 , L0004353 , L0004354 , L0004355 , L0004356 , L0004357 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
L0004358 ,
L0004359 , L0004360 , L0004361 , L0004362 , L0004363 , L0004364 , L0004365 , L0004366 ,
L0004367 , L0004368 , L0004369 , L0004370 , L0004371 , L0004372 , L0004373 , L0004374 ,
L0004375 , L0004376 , L0004377 , L0004378 , L0004379 , L0004380 , L0004381 , L0004382 ,
L0004383 , L0004384 , L0004385 , L0004386 , L0004387 , L0004388 , L0004389 , L0004390 ,
L0004391 , L0004392 , L0004393 , L0004394 , L0004395 , L0004396 , L0004397 , L0004398 ,
L0004399 , L0004400 , L0004401 , L0004402 , L0004403 , L0004404 , L0004405 , L0004406 ,
L0004407 , L0004408 , L0004409 , L0004410 , L0004411 , L0004412 , L0004413 , L0004414 ,
L0004415 , L0004416 , L0004417 , L0004418 , L0004419 , L0004420 , L0004421 , L0004422 ,
L0004423 , L0004424 , L0004425 , L0004426 , L0004427 , L0004428 , L0004429 , L0004430 ,
L0004431 , L0004432 , L0004433 , L0004434 , L0004435 , L0004436 , L0004437 , L0004438 ,
L0004439 , L0004440 , L0004441 , L0004442 , L0004443 , L0004444 , L0004445 , L0004446 ,
L0004447 , L0004448 , L0004449 , L0004450 , L0004451 , L0004452 , L0004453 , L0004454 ,
L0004455 , L0004456 , L0004457 , L0004458 , L0004459 , L0004460 , L0004461 , L0004462 ,
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 11:01:54

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0004463 , L0004464 , L0004465 , L0004466 , L0004467 , L0004468 , L0004469 , L0004470 ,
L0004471 , L0004472 , L0004473 , L0004474 , L0004475 , L0004476 , L0004477 , L0004478 ,
L0004479 , L0004480 , L0004481 , L0004482 , L0004483 , L0004484 , L0004485 , L0004486 ,
L0004487 , L0004488 , L0004489 , L0004490 , L0004491 , L0004492 , L0004493 , STCK1 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(478756.5, 3747340.4, 448.0, 448.0, 0.0); (477850.2, 3745739.2, 448.0, 448.0, 0.0);
(477468.3, 3745732.7, 450.0, 450.0, 0.0); (477064.8, 3746275.6, 452.0, 452.0, 0.0);
(476681.9, 3747195.9, 453.0, 453.0, 0.0);

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1

Residential

Profile file: ..\peri8.PFL
Surface format: FREE

Profile format: FREE

Surface station no.: 0 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2007 Year: 2007

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
07	01	01	1	01	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	133.	9.1	279.9	5.5
07	01	01	1	02	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	192.	9.1	279.2	5.5
07	01	01	1	03	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	160.	9.1	277.5	5.5
07	01	01	1	04	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	75.	9.1	277.5	5.5
07	01	01	1	05	-0.6	0.026	-9.000	-9.000	-999.	10.	2.6	0.19	1.00	1.00	0.50	282.	9.1	278.8	5.5
07	01	01	1	06	-0.6	0.026	-9.000	-9.000	-999.	10.	2.6	0.19	1.00	1.00	0.50	96.	9.1	277.5	5.5
07	01	01	1	07	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	129.	9.1	278.1	5.5
07	01	01	1	08	-0.4	0.026	-9.000	-9.000	-999.	10.	3.7	0.19	1.00	0.54	0.50	99.	9.1	277.5	5.5
07	01	01	1	09	27.8	0.091	0.542	0.005	196.	66.	-2.3	0.19	1.00	0.33	0.50	133.	9.1	278.1	5.5
07	01	01	1	10	76.9	0.104	1.050	0.005	516.	81.	-1.3	0.19	1.00	0.26	0.50	174.	9.1	281.4	5.5
07	01	01	1	11	110.0	0.109	1.374	0.009	810.	87.	-1.0	0.19	1.00	0.23	0.50	95.	9.1	284.9	5.5
07	01	01	1	12	125.7	0.201	1.589	0.018	1095.	216.	-5.5	0.19	1.00	0.22	1.30	94.	9.1	288.1	5.5
07	01	01	1	13	121.7	0.287	1.641	0.022	1248.	369.	-16.6	0.19	1.00	0.22	2.20	24.	9.1	291.4	5.5
07	01	01	1	14	102.8	0.414	1.559	0.021	1265.	639.	-59.1	0.19	1.00	0.23	3.60	13.	9.1	292.5	5.5
07	01	01	1	15	69.9	0.619	1.374	0.021	1276.	1169.	-291.2	0.19	1.00	0.27	5.80	318.	9.1	292.0	5.5
07	01	01	1	16	16.8	0.607	0.856	0.021	1277.	1135.	-1137.8	0.19	1.00	0.36	5.80	329.	9.1	291.4	5.5
07	01	01	1	17	-42.2	0.437	-9.000	-9.000	-999.	720.	169.3	0.19	1.00	0.64	4.50	333.	9.1	289.9	5.5
07	01	01	1	18	-18.5	0.353	-9.000	-9.000	-999.	510.	204.1	0.19	1.00	1.00	3.60	305.	9.1	288.8	5.5
07	01	01	1	19	-42.3	0.437	-9.000	-9.000	-999.	692.	168.7	0.19	1.00	1.00	4.50	276.	9.1	287.5	5.5
07	01	01	1	20	-32.3	0.334	-9.000	-9.000	-999.	470.	98.6	0.19	1.00	1.00	3.60	323.	9.1	287.5	5.5
07	01	01	1	21	-36.7	0.380	-9.000	-9.000	-999.	562.	128.3	0.19	1.00	1.00	4.00	322.	9.1	288.1	5.5
07	01	01	1	22	-45.6	0.434	-9.000	-9.000	-999.	685.	153.6	0.19	1.00	1.00	4.50	30.	9.1	288.1	5.5
07	01	01	1	23	-39.7	0.377	-9.000	-9.000	-999.	557.	115.4	0.19	1.00	1.00	4.00	343.	9.1	287.0	5.5
07	01	01	1	24	-7.7	0.093	-9.000	-9.000	-999.	215.	9.1	0.19	1.00	1.00	1.80	155.	9.1	283.8	5.5

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
07	01	01	01	5.5	0	-999.	-99.00	279.9	99.0	-99.00	-99.00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
07 01 01 01 9.1 1 133. 0.50 -999.0 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 11:01:54

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L0003183 , L0003184 , L0003185 , L0003186 , L0003187 ,
L0003188 , L0003189 , L0003190 , L0003191 , L0003192 , L0003193 , L0003194 , L0003195 ,
L0003196 , L0003197 , L0003198 , L0003199 , L0003200 , L0003201 , L0003202 , L0003203 ,
L0003204 , L0003205 , L0003206 , L0003207 , L0003208 , L0003209 , L0003210 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
478756.45	3747340.45	0.00044	477850.17	3745739.17	0.00043
477468.29	3745732.72	0.00036	477064.80	3746275.62	0.00065
476681.88	3747195.89	0.00034			

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc *** *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 11:01:54

PAGE 58
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

NETWORK GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE GRID-ID
ALL	1ST HIGHEST VALUE IS	0.00065 AT	(477064.80, 3746275.62, 452.00, 452.00, 0.00)	DC
	2ND HIGHEST VALUE IS	0.00044 AT	(478756.45, 3747340.45, 448.00, 448.00, 0.00)	DC
	3RD HIGHEST VALUE IS	0.00043 AT	(477850.17, 3745739.17, 448.00, 448.00, 0.00)	DC
	4TH HIGHEST VALUE IS	0.00036 AT	(477468.29, 3745732.72, 450.00, 450.00, 0.00)	DC
	5TH HIGHEST VALUE IS	0.00034 AT	(476681.88, 3747195.89, 453.00, 453.00, 0.00)	DC
	6TH HIGHEST VALUE IS	0.00000 AT	(0.00, 0.00, 0.00, 0.00, 0.00)	
	7TH HIGHEST VALUE IS	0.00000 AT	(0.00, 0.00, 0.00, 0.00, 0.00)	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                  Residential
         8TH HIGHEST VALUE IS       0.00000 AT (       0.00,       0.00,     0.00,     0.00,    0.00)
         9TH HIGHEST VALUE IS       0.00000 AT (       0.00,       0.00,     0.00,     0.00,    0.00)
        10TH HIGHEST VALUE IS       0.00000 AT (       0.00,       0.00,     0.00,     0.00,    0.00)


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Residential\Residential.isc                ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   11:01:54

   PAGE  59
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of         1895 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of           90 Calm Hours Identified

 A Total of         1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 6/30/2016
** File: C:\Lakes\AERMOD View\ISCC\Worker\Worker.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 2100516
   POLLUTID DPM
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
   RUNORNOT RUN
   ERRORFIL Worker.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC 95% Inbound from I-215
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003925
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 25
** 478284.499, 3746790.113, 447.06, 0.00, 3.95
** 478286.086, 3746354.087, 446.49, 0.00, 3.95
** 477626.120, 3746357.399, 448.48, 0.00, 3.95
** 477477.069, 3746360.711, 449.43, 0.00, 3.95
** 477395.919, 3746386.381, 450.00, 0.00, 3.95
** 477334.642, 3746416.191, 450.00, 0.00, 3.95
** 477300.692, 3746444.345, 450.00, 0.00, 3.95
** 477188.160, 3746523.278, 450.92, 0.00, 3.95
** 477119.104, 3746541.941, 451.00, 0.00, 3.95
** 477040.717, 3746547.540, 451.90, 0.00, 3.95
** 476936.201, 3746549.407, 452.15, 0.00, 3.95
** 476786.893, 3746553.139, 453.59, 0.00, 3.95
** 476747.699, 3746549.407, 454.09, 0.00, 3.95
** 476639.451, 3746547.540, 455.40, 0.00, 3.95
** 476598.391, 3746568.070, 455.87, 0.00, 3.95
** 476555.465, 3746597.932, 456.00, 0.00, 3.95
** 476518.137, 3746633.393, 456.11, 0.00, 3.95
** 476495.741, 3746680.051, 456.06, 0.00, 3.95
** 476465.879, 3746747.240, 456.04, 0.00, 3.95
** 476441.617, 3746844.291, 456.09, 0.00, 3.95
** 476396.824, 3746896.549, 456.44, 0.00, 3.95
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** 476029.152, 3746948.807, 460.06, 0.00, 3.95
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   LOCATION L0004500     VOLUME   478284.700 3746734.864 447.00
   LOCATION L0004501     VOLUME   478284.731 3746726.364 447.00
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   LOCATION L0004510     VOLUME   478285.010 3746649.864 447.00
   LOCATION L0004511     VOLUME   478285.040 3746641.364 447.00
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

LOCATION	L0004512	VOLUME	478285.071	3746632.864	447.00
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                                                Residential
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                                                  Residential
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				Residential
LOCATION	L0004713	VOLUME	476905.021 3746550.186	452.26
LOCATION	L0004714	VOLUME	476896.524 3746550.398	452.41
LOCATION	L0004715	VOLUME	476888.027 3746550.611	452.55
LOCATION	L0004716	VOLUME	476879.529 3746550.823	452.68
LOCATION	L0004717	VOLUME	476871.032 3746551.036	452.82
LOCATION	L0004718	VOLUME	476862.535 3746551.248	452.96
LOCATION	L0004719	VOLUME	476854.037 3746551.461	453.00
LOCATION	L0004720	VOLUME	476845.540 3746551.673	453.00
LOCATION	L0004721	VOLUME	476837.043 3746551.885	453.00
LOCATION	L0004722	VOLUME	476828.545 3746552.098	453.00
LOCATION	L0004723	VOLUME	476820.048 3746552.310	453.00
LOCATION	L0004724	VOLUME	476811.551 3746552.523	453.00
LOCATION	L0004725	VOLUME	476803.053 3746552.735	453.00
LOCATION	L0004726	VOLUME	476794.556 3746552.948	453.00
LOCATION	L0004727	VOLUME	476786.062 3746553.060	454.00
LOCATION	L0004728	VOLUME	476777.600 3746552.254	454.00
LOCATION	L0004729	VOLUME	476769.139 3746551.448	454.00
LOCATION	L0004730	VOLUME	476760.677 3746550.642	454.00
LOCATION	L0004731	VOLUME	476752.215 3746549.837	454.00
LOCATION	L0004732	VOLUME	476743.736 3746549.338	454.00
LOCATION	L0004733	VOLUME	476735.237 3746549.192	454.15
LOCATION	L0004734	VOLUME	476726.739 3746549.045	454.44
LOCATION	L0004735	VOLUME	476718.240 3746548.899	454.72
LOCATION	L0004736	VOLUME	476709.741 3746548.752	455.00
LOCATION	L0004737	VOLUME	476701.243 3746548.606	455.00
LOCATION	L0004738	VOLUME	476692.744 3746548.459	455.00
LOCATION	L0004739	VOLUME	476684.245 3746548.312	455.00
LOCATION	L0004740	VOLUME	476675.746 3746548.166	455.00
LOCATION	L0004741	VOLUME	476667.248 3746548.019	455.00
LOCATION	L0004742	VOLUME	476658.749 3746547.873	455.00
LOCATION	L0004743	VOLUME	476650.250 3746547.726	455.00
LOCATION	L0004744	VOLUME	476641.751 3746547.580	455.17
LOCATION	L0004745	VOLUME	476633.906 3746550.312	455.28
LOCATION	L0004746	VOLUME	476626.304 3746554.114	455.32
LOCATION	L0004747	VOLUME	476618.701 3746557.915	455.30
LOCATION	L0004748	VOLUME	476611.098 3746561.716	455.40
LOCATION	L0004749	VOLUME	476603.496 3746565.518	455.56
LOCATION	L0004750	VOLUME	476596.098 3746569.665	455.79
LOCATION	L0004751	VOLUME	476589.121 3746574.519	456.00
LOCATION	L0004752	VOLUME	476582.143 3746579.373	456.00
LOCATION	L0004753	VOLUME	476575.165 3746584.227	456.00
LOCATION	L0004754	VOLUME	476568.188 3746589.081	456.00
LOCATION	L0004755	VOLUME	476561.210 3746593.935	456.00
LOCATION	L0004756	VOLUME	476554.376 3746598.966	456.00
LOCATION	L0004757	VOLUME	476548.214 3746604.820	456.00
LOCATION	L0004758	VOLUME	476542.051 3746610.675	456.00
LOCATION	L0004759	VOLUME	476535.889 3746616.529	456.00
LOCATION	L0004760	VOLUME	476529.726 3746622.383	456.00
LOCATION	L0004761	VOLUME	476523.564 3746628.238	456.00
LOCATION	L0004762	VOLUME	476517.698 3746634.308	456.00
LOCATION	L0004763	VOLUME	476514.020 3746641.971	456.00
LOCATION	L0004764	VOLUME	476510.342 3746649.634	456.00
LOCATION	L0004765	VOLUME	476506.663 3746657.297	456.00
LOCATION	L0004766	VOLUME	476502.985 3746664.960	456.00
LOCATION	L0004767	VOLUME	476499.307 3746672.623	456.02
LOCATION	L0004768	VOLUME	476495.636 3746680.289	456.14
LOCATION	L0004769	VOLUME	476492.183 3746688.056	456.26
LOCATION	L0004770	VOLUME	476488.731 3746695.824	456.37
LOCATION	L0004771	VOLUME	476485.279 3746703.591	456.49
LOCATION	L0004772	VOLUME	476481.827 3746711.359	456.60
LOCATION	L0004773	VOLUME	476478.375 3746719.126	456.65
LOCATION	L0004774	VOLUME	476474.923 3746726.893	456.53
LOCATION	L0004775	VOLUME	476471.470 3746734.661	456.36
LOCATION	L0004776	VOLUME	476468.018 3746742.428	456.18
LOCATION	L0004777	VOLUME	476465.095 3746750.378	456.16
LOCATION	L0004778	VOLUME	476463.034 3746758.624	456.23
LOCATION	L0004779	VOLUME	476460.972 3746766.870	456.30

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                                                  Residential
   LOCATION L0004780     VOLUME   476458.910 3746775.116 456.36
   LOCATION L0004781     VOLUME   476456.849 3746783.363 456.43
   LOCATION L0004782     VOLUME   476454.787 3746791.609 456.50
   LOCATION L0004783     VOLUME   476452.726 3746799.855 456.57
   LOCATION L0004784     VOLUME   476450.664 3746808.101 456.60
   LOCATION L0004785     VOLUME   476448.603 3746816.347 456.47
   LOCATION L0004786     VOLUME   476446.541 3746824.594 456.30
   LOCATION L0004787     VOLUME   476444.480 3746832.840 456.10
   LOCATION L0004788     VOLUME   476442.418 3746841.086 456.00
   LOCATION L0004789     VOLUME   476438.235 3746848.236 456.05
   LOCATION L0004790     VOLUME   476432.703 3746854.690 456.24
   LOCATION L0004791     VOLUME   476427.172 3746861.144 456.42
   LOCATION L0004792     VOLUME   476421.640 3746867.597 456.58
   LOCATION L0004793     VOLUME   476416.108 3746874.051 456.58
   LOCATION L0004794     VOLUME   476410.576 3746880.505 456.51
   LOCATION L0004795     VOLUME   476405.045 3746886.959 456.42
   LOCATION L0004796     VOLUME   476399.513 3746893.412 456.41
   LOCATION L0004797     VOLUME   476393.483 3746899.363 456.49
   LOCATION L0004798     VOLUME   476386.981 3746904.838 456.54
   LOCATION L0004799     VOLUME   476380.479 3746910.313 456.52
   LOCATION L0004800     VOLUME   476373.977 3746915.788 456.48
   LOCATION L0004801     VOLUME   476367.476 3746921.264 456.51
   LOCATION L0004802     VOLUME   476360.872 3746926.545 456.63
   LOCATION L0004803     VOLUME   476352.672 3746928.781 456.83
   LOCATION L0004804     VOLUME   476344.471 3746931.018 456.87
   LOCATION L0004805     VOLUME   476336.271 3746933.254 456.87
   LOCATION L0004806     VOLUME   476328.070 3746935.491 456.92
   LOCATION L0004807     VOLUME   476319.857 3746937.665 457.00
   LOCATION L0004808     VOLUME   476311.423 3746938.719 457.00
   LOCATION L0004809     VOLUME   476302.988 3746939.773 457.00
   LOCATION L0004810     VOLUME   476294.554 3746940.827 457.00
   LOCATION L0004811     VOLUME   476286.120 3746941.882 457.00
   LOCATION L0004812     VOLUME   476277.685 3746942.936 457.00
   LOCATION L0004813     VOLUME   476269.251 3746943.990 457.00
   LOCATION L0004814     VOLUME   476260.817 3746945.045 457.00
   LOCATION L0004815     VOLUME   476252.320 3746945.207 457.00
   LOCATION L0004816     VOLUME   476243.821 3746945.344 457.00
   LOCATION L0004817     VOLUME   476235.322 3746945.482 457.00
   LOCATION L0004818     VOLUME   476226.823 3746945.619 457.04
   LOCATION L0004819     VOLUME   476218.324 3746945.756 457.13
   LOCATION L0004820     VOLUME   476209.825 3746945.893 457.23
   LOCATION L0004821     VOLUME   476201.326 3746946.030 457.32
   LOCATION L0004822     VOLUME   476192.827 3746946.167 457.49
   LOCATION L0004823     VOLUME   476184.328 3746946.304 457.68
   LOCATION L0004824     VOLUME   476175.830 3746946.441 457.87
   LOCATION L0004825     VOLUME   476167.331 3746946.578 458.00
   LOCATION L0004826     VOLUME   476158.832 3746946.715 458.00
   LOCATION L0004827     VOLUME   476150.333 3746946.852 458.00
   LOCATION L0004828     VOLUME   476141.834 3746946.989 458.00
   LOCATION L0004829     VOLUME   476133.335 3746947.127 458.22
   LOCATION L0004830     VOLUME   476124.836 3746947.264 458.50
   LOCATION L0004831     VOLUME   476116.337 3746947.401 458.78
   LOCATION L0004832     VOLUME   476107.838 3746947.538 459.00
   LOCATION L0004833     VOLUME   476099.339 3746947.675 459.00
   LOCATION L0004834     VOLUME   476090.841 3746947.812 459.00
   LOCATION L0004835     VOLUME   476082.342 3746947.949 459.00
   LOCATION L0004836     VOLUME   476073.843 3746948.086 459.20
   LOCATION L0004837     VOLUME   476065.344 3746948.223 459.48
   LOCATION L0004838     VOLUME   476056.845 3746948.360 459.77
   LOCATION L0004839     VOLUME   476048.346 3746948.497 460.00
   LOCATION L0004840     VOLUME   476039.847 3746948.634 460.00
   LOCATION L0004841     VOLUME   476031.348 3746948.771 460.00
** End of LINE VOLUME Source ID = SLINE1
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC 90% Outbound to I-215
```

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** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003718
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 25
** 478284.499, 3746790.113, 447.06, 0.00, 3.95
** 478286.086, 3746354.087, 446.49, 0.00, 3.95
** 477626.120, 3746357.399, 448.48, 0.00, 3.95
** 477477.069, 3746360.711, 449.43, 0.00, 3.95
** 477395.919, 3746386.381, 450.00, 0.00, 3.95
** 477334.642, 3746416.191, 450.00, 0.00, 3.95
** 477300.692, 3746444.345, 450.00, 0.00, 3.95
** 477188.160, 3746523.278, 450.92, 0.00, 3.95
** 477119.104, 3746541.941, 451.00, 0.00, 3.95
** 477040.717, 3746547.540, 451.90, 0.00, 3.95
** 476936.201, 3746549.407, 452.15, 0.00, 3.95
** 476786.893, 3746553.139, 453.59, 0.00, 3.95
** 476747.699, 3746549.407, 454.09, 0.00, 3.95
** 476639.451, 3746547.540, 455.40, 0.00, 3.95
** 476598.391, 3746568.070, 455.87, 0.00, 3.95
** 476555.465, 3746597.932, 456.00, 0.00, 3.95
** 476518.137, 3746633.393, 456.11, 0.00, 3.95
** 476495.741, 3746680.051, 456.06, 0.00, 3.95
** 476465.879, 3746747.240, 456.04, 0.00, 3.95
** 476441.617, 3746844.291, 456.09, 0.00, 3.95
** 476396.824, 3746896.549, 456.44, 0.00, 3.95
** 476361.364, 3746926.411, 456.75, 0.00, 3.95
** 476320.304, 3746937.609, 457.00, 0.00, 3.95
** 476260.580, 3746945.074, 457.00, 0.00, 3.95
** 476029.152, 3746948.807, 460.06, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0004842     VOLUME   478284.515 3746785.863 447.00
   LOCATION L0004843     VOLUME   478284.546 3746777.363 447.00
   LOCATION L0004844     VOLUME   478284.577 3746768.863 447.00
   LOCATION L0004845     VOLUME   478284.608 3746760.363 447.00
   LOCATION L0004846     VOLUME   478284.638 3746751.864 447.00
   LOCATION L0004847     VOLUME   478284.669 3746743.364 447.00
   LOCATION L0004848     VOLUME   478284.700 3746734.864 447.00
   LOCATION L0004849     VOLUME   478284.731 3746726.364 447.00
   LOCATION L0004850     VOLUME   478284.762 3746717.864 447.00
   LOCATION L0004851     VOLUME   478284.793 3746709.364 447.00
   LOCATION L0004852     VOLUME   478284.824 3746700.864 447.00
   LOCATION L0004853     VOLUME   478284.855 3746692.364 447.00
   LOCATION L0004854     VOLUME   478284.886 3746683.864 447.00
   LOCATION L0004855     VOLUME   478284.917 3746675.364 447.00
   LOCATION L0004856     VOLUME   478284.948 3746666.864 447.00
   LOCATION L0004857     VOLUME   478284.979 3746658.364 447.00
   LOCATION L0004858     VOLUME   478285.010 3746649.864 447.00
   LOCATION L0004859     VOLUME   478285.040 3746641.364 447.00
   LOCATION L0004860     VOLUME   478285.071 3746632.864 447.00
   LOCATION L0004861     VOLUME   478285.102 3746624.364 447.00
   LOCATION L0004862     VOLUME   478285.133 3746615.864 447.00
   LOCATION L0004863     VOLUME   478285.164 3746607.364 447.00
   LOCATION L0004864     VOLUME   478285.195 3746598.865 447.00
   LOCATION L0004865     VOLUME   478285.226 3746590.365 447.00
   LOCATION L0004866     VOLUME   478285.257 3746581.865 447.00
   LOCATION L0004867     VOLUME   478285.288 3746573.365 447.00
   LOCATION L0004868     VOLUME   478285.319 3746564.865 447.00
   LOCATION L0004869     VOLUME   478285.350 3746556.365 447.00
   LOCATION L0004870     VOLUME   478285.381 3746547.865 447.00
   LOCATION L0004871     VOLUME   478285.412 3746539.365 447.00
   LOCATION L0004872     VOLUME   478285.443 3746530.865 447.00
   LOCATION L0004873     VOLUME   478285.473 3746522.365 447.00
   LOCATION L0004874     VOLUME   478285.504 3746513.865 447.00
   LOCATION L0004875     VOLUME   478285.535 3746505.365 447.00
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

LOCATION	L0004876	VOLUME	478285.566	3746496.865	447.00
LOCATION	L0004877	VOLUME	478285.597	3746488.365	447.00
LOCATION	L0004878	VOLUME	478285.628	3746479.865	447.00
LOCATION	L0004879	VOLUME	478285.659	3746471.365	447.00
LOCATION	L0004880	VOLUME	478285.690	3746462.865	447.00
LOCATION	L0004881	VOLUME	478285.721	3746454.366	447.00
LOCATION	L0004882	VOLUME	478285.752	3746445.866	446.99
LOCATION	L0004883	VOLUME	478285.783	3746437.366	446.84
LOCATION	L0004884	VOLUME	478285.814	3746428.866	446.69
LOCATION	L0004885	VOLUME	478285.845	3746420.366	446.54
LOCATION	L0004886	VOLUME	478285.875	3746411.866	446.47
LOCATION	L0004887	VOLUME	478285.906	3746403.366	446.47
LOCATION	L0004888	VOLUME	478285.937	3746394.866	446.47
LOCATION	L0004889	VOLUME	478285.968	3746386.366	446.46
LOCATION	L0004890	VOLUME	478285.999	3746377.866	446.46
LOCATION	L0004891	VOLUME	478286.030	3746369.366	446.46
LOCATION	L0004892	VOLUME	478286.061	3746360.866	446.46
LOCATION	L0004893	VOLUME	478284.365	3746354.095	446.52
LOCATION	L0004894	VOLUME	478275.866	3746354.138	446.80
LOCATION	L0004895	VOLUME	478267.366	3746354.180	447.00
LOCATION	L0004896	VOLUME	478258.866	3746354.223	447.00
LOCATION	L0004897	VOLUME	478250.366	3746354.266	447.00
LOCATION	L0004898	VOLUME	478241.866	3746354.308	447.00
LOCATION	L0004899	VOLUME	478233.366	3746354.351	447.00
LOCATION	L0004900	VOLUME	478224.866	3746354.394	447.00
LOCATION	L0004901	VOLUME	478216.366	3746354.436	447.00
LOCATION	L0004902	VOLUME	478207.866	3746354.479	447.00
LOCATION	L0004903	VOLUME	478199.366	3746354.522	447.00
LOCATION	L0004904	VOLUME	478190.867	3746354.564	447.00
LOCATION	L0004905	VOLUME	478182.367	3746354.607	447.00
LOCATION	L0004906	VOLUME	478173.867	3746354.650	447.00
LOCATION	L0004907	VOLUME	478165.367	3746354.692	447.00
LOCATION	L0004908	VOLUME	478156.867	3746354.735	447.00
LOCATION	L0004909	VOLUME	478148.367	3746354.778	447.00
LOCATION	L0004910	VOLUME	478139.867	3746354.820	447.00
LOCATION	L0004911	VOLUME	478131.367	3746354.863	447.00
LOCATION	L0004912	VOLUME	478122.867	3746354.906	447.00
LOCATION	L0004913	VOLUME	478114.368	3746354.948	447.00
LOCATION	L0004914	VOLUME	478105.868	3746354.991	447.00
LOCATION	L0004915	VOLUME	478097.368	3746355.034	447.00
LOCATION	L0004916	VOLUME	478088.868	3746355.076	447.00
LOCATION	L0004917	VOLUME	478080.368	3746355.119	447.00
LOCATION	L0004918	VOLUME	478071.868	3746355.162	447.00
LOCATION	L0004919	VOLUME	478063.368	3746355.204	447.00
LOCATION	L0004920	VOLUME	478054.868	3746355.247	447.00
LOCATION	L0004921	VOLUME	478046.368	3746355.290	447.00
LOCATION	L0004922	VOLUME	478037.869	3746355.332	447.00
LOCATION	L0004923	VOLUME	478029.369	3746355.375	447.00
LOCATION	L0004924	VOLUME	478020.869	3746355.418	447.00
LOCATION	L0004925	VOLUME	478012.369	3746355.460	447.00
LOCATION	L0004926	VOLUME	478003.869	3746355.503	447.00
LOCATION	L0004927	VOLUME	477995.369	3746355.546	447.00
LOCATION	L0004928	VOLUME	477986.869	3746355.588	447.00
LOCATION	L0004929	VOLUME	477978.369	3746355.631	447.00
LOCATION	L0004930	VOLUME	477969.869	3746355.674	447.00
LOCATION	L0004931	VOLUME	477961.369	3746355.716	447.00
LOCATION	L0004932	VOLUME	477952.870	3746355.759	447.00
LOCATION	L0004933	VOLUME	477944.370	3746355.802	447.00
LOCATION	L0004934	VOLUME	477935.870	3746355.844	447.13
LOCATION	L0004935	VOLUME	477927.370	3746355.887	447.42
LOCATION	L0004936	VOLUME	477918.870	3746355.929	447.70
LOCATION	L0004937	VOLUME	477910.370	3746355.972	447.98
LOCATION	L0004938	VOLUME	477901.870	3746356.015	448.00
LOCATION	L0004939	VOLUME	477893.370	3746356.057	448.00
LOCATION	L0004940	VOLUME	477884.870	3746356.100	448.00
LOCATION	L0004941	VOLUME	477876.371	3746356.143	448.00
LOCATION	L0004942	VOLUME	477867.871	3746356.185	448.00

				Residential
LOCATION	L0004943	VOLUME	477859.371 3746356.228	448.00
LOCATION	L0004944	VOLUME	477850.871 3746356.271	448.00
LOCATION	L0004945	VOLUME	477842.371 3746356.313	448.00
LOCATION	L0004946	VOLUME	477833.871 3746356.356	448.00
LOCATION	L0004947	VOLUME	477825.371 3746356.399	448.00
LOCATION	L0004948	VOLUME	477816.871 3746356.441	448.00
LOCATION	L0004949	VOLUME	477808.371 3746356.484	448.00
LOCATION	L0004950	VOLUME	477799.872 3746356.527	448.00
LOCATION	L0004951	VOLUME	477791.372 3746356.569	448.00
LOCATION	L0004952	VOLUME	477782.872 3746356.612	448.00
LOCATION	L0004953	VOLUME	477774.372 3746356.655	448.00
LOCATION	L0004954	VOLUME	477765.872 3746356.697	448.00
LOCATION	L0004955	VOLUME	477757.372 3746356.740	448.00
LOCATION	L0004956	VOLUME	477748.872 3746356.783	448.00
LOCATION	L0004957	VOLUME	477740.372 3746356.825	448.00
LOCATION	L0004958	VOLUME	477731.872 3746356.868	448.00
LOCATION	L0004959	VOLUME	477723.372 3746356.911	448.00
LOCATION	L0004960	VOLUME	477714.873 3746356.953	448.00
LOCATION	L0004961	VOLUME	477706.373 3746356.996	448.00
LOCATION	L0004962	VOLUME	477697.873 3746357.039	448.00
LOCATION	L0004963	VOLUME	477689.373 3746357.081	448.00
LOCATION	L0004964	VOLUME	477680.873 3746357.124	448.00
LOCATION	L0004965	VOLUME	477672.373 3746357.167	448.00
LOCATION	L0004966	VOLUME	477663.873 3746357.209	448.00
LOCATION	L0004967	VOLUME	477655.373 3746357.252	448.00
LOCATION	L0004968	VOLUME	477646.873 3746357.295	448.00
LOCATION	L0004969	VOLUME	477638.374 3746357.337	448.05
LOCATION	L0004970	VOLUME	477629.874 3746357.380	448.33
LOCATION	L0004971	VOLUME	477621.375 3746357.504	448.62
LOCATION	L0004972	VOLUME	477612.877 3746357.693	448.90
LOCATION	L0004973	VOLUME	477604.379 3746357.882	449.00
LOCATION	L0004974	VOLUME	477595.881 3746358.071	449.00
LOCATION	L0004975	VOLUME	477587.383 3746358.260	449.00
LOCATION	L0004976	VOLUME	477578.885 3746358.448	449.00
LOCATION	L0004977	VOLUME	477570.387 3746358.637	449.00
LOCATION	L0004978	VOLUME	477561.890 3746358.826	449.00
LOCATION	L0004979	VOLUME	477553.392 3746359.015	449.00
LOCATION	L0004980	VOLUME	477544.894 3746359.204	449.00
LOCATION	L0004981	VOLUME	477536.396 3746359.393	449.00
LOCATION	L0004982	VOLUME	477527.898 3746359.581	449.00
LOCATION	L0004983	VOLUME	477519.400 3746359.770	449.00
LOCATION	L0004984	VOLUME	477510.902 3746359.959	449.00
LOCATION	L0004985	VOLUME	477502.404 3746360.148	449.00
LOCATION	L0004986	VOLUME	477493.906 3746360.337	449.00
LOCATION	L0004987	VOLUME	477485.408 3746360.526	449.15
LOCATION	L0004988	VOLUME	477476.918 3746360.759	449.43
LOCATION	L0004989	VOLUME	477468.814 3746363.322	449.70
LOCATION	L0004990	VOLUME	477460.709 3746365.886	449.97
LOCATION	L0004991	VOLUME	477452.605 3746368.450	450.00
LOCATION	L0004992	VOLUME	477444.501 3746371.013	450.00
LOCATION	L0004993	VOLUME	477436.397 3746373.577	450.00
LOCATION	L0004994	VOLUME	477428.293 3746376.140	450.00
LOCATION	L0004995	VOLUME	477420.188 3746378.704	450.00
LOCATION	L0004996	VOLUME	477412.084 3746381.267	450.00
LOCATION	L0004997	VOLUME	477403.980 3746383.831	450.00
LOCATION	L0004998	VOLUME	477395.878 3746386.401	450.00
LOCATION	L0004999	VOLUME	477388.235 3746390.119	450.00
LOCATION	L0005000	VOLUME	477380.591 3746393.838	450.00
LOCATION	L0005001	VOLUME	477372.948 3746397.556	450.00
LOCATION	L0005002	VOLUME	477365.304 3746401.275	450.00
LOCATION	L0005003	VOLUME	477357.661 3746404.993	450.00
LOCATION	L0005004	VOLUME	477350.017 3746408.711	450.00
LOCATION	L0005005	VOLUME	477342.374 3746412.430	450.00
LOCATION	L0005006	VOLUME	477334.730 3746416.148	450.00
LOCATION	L0005007	VOLUME	477328.175 3746421.555	450.00
LOCATION	L0005008	VOLUME	477321.632 3746426.980	450.00
LOCATION	L0005009	VOLUME	477315.089 3746432.406	450.00

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                                                  Residential
LOCATION L0005010     VOLUME   477308.546 3746437.832 450.00
LOCATION L0005011     VOLUME   477302.003 3746443.258 450.00
LOCATION L0005012     VOLUME   477295.127 3746448.248 450.00
LOCATION L0005013     VOLUME   477288.169 3746453.129 450.00
LOCATION L0005014     VOLUME   477281.210 3746458.010 450.00
LOCATION L0005015     VOLUME   477274.251 3746462.891 450.00
LOCATION L0005016     VOLUME   477267.292 3746467.772 450.00
LOCATION L0005017     VOLUME   477260.333 3746472.654 450.00
LOCATION L0005018     VOLUME   477253.374 3746477.535 450.00
LOCATION L0005019     VOLUME   477246.416 3746482.416 450.09
LOCATION L0005020     VOLUME   477239.457 3746487.297 450.22
LOCATION L0005021     VOLUME   477232.498 3746492.178 450.27
LOCATION L0005022     VOLUME   477225.539 3746497.059 450.25
LOCATION L0005023     VOLUME   477218.580 3746501.940 450.18
LOCATION L0005024     VOLUME   477211.621 3746506.821 450.27
LOCATION L0005025     VOLUME   477204.663 3746511.702 450.51
LOCATION L0005026     VOLUME   477197.704 3746516.583 450.74
LOCATION L0005027     VOLUME   477190.745 3746521.464 450.97
LOCATION L0005028     VOLUME   477183.003 3746524.671 451.00
LOCATION L0005029     VOLUME   477174.797 3746526.889 451.00
LOCATION L0005030     VOLUME   477166.591 3746529.107 451.00
LOCATION L0005031     VOLUME   477158.386 3746531.324 451.00
LOCATION L0005032     VOLUME   477150.180 3746533.542 451.00
LOCATION L0005033     VOLUME   477141.975 3746535.760 451.00
LOCATION L0005034     VOLUME   477133.769 3746537.978 451.00
LOCATION L0005035     VOLUME   477125.564 3746540.195 451.00
LOCATION L0005036     VOLUME   477117.300 3746542.070 451.00
LOCATION L0005037     VOLUME   477108.821 3746542.676 451.00
LOCATION L0005038     VOLUME   477100.343 3746543.281 451.00
LOCATION L0005039     VOLUME   477091.865 3746543.887 451.00
LOCATION L0005040     VOLUME   477083.386 3746544.492 451.00
LOCATION L0005041     VOLUME   477074.908 3746545.098 451.00
LOCATION L0005042     VOLUME   477066.429 3746545.704 451.08
LOCATION L0005043     VOLUME   477057.951 3746546.309 451.26
LOCATION L0005044     VOLUME   477049.473 3746546.915 451.44
LOCATION L0005045     VOLUME   477040.994 3746547.520 451.60
LOCATION L0005046     VOLUME   477032.496 3746547.687 451.71
LOCATION L0005047     VOLUME   477023.998 3746547.839 451.82
LOCATION L0005048     VOLUME   477015.499 3746547.990 451.93
LOCATION L0005049     VOLUME   477007.000 3746548.142 452.00
LOCATION L0005050     VOLUME   476998.502 3746548.294 452.00
LOCATION L0005051     VOLUME   476990.003 3746548.446 452.00
LOCATION L0005052     VOLUME   476981.504 3746548.598 452.00
LOCATION L0005053     VOLUME   476973.006 3746548.749 452.00
LOCATION L0005054     VOLUME   476964.507 3746548.901 452.00
LOCATION L0005055     VOLUME   476956.008 3746549.053 452.00
LOCATION L0005056     VOLUME   476947.510 3746549.205 452.00
LOCATION L0005057     VOLUME   476939.011 3746549.356 452.00
LOCATION L0005058     VOLUME   476930.513 3746549.549 452.00
LOCATION L0005059     VOLUME   476922.016 3746549.761 452.00
LOCATION L0005060     VOLUME   476913.519 3746549.974 452.11
LOCATION L0005061     VOLUME   476905.021 3746550.186 452.26
LOCATION L0005062     VOLUME   476896.524 3746550.398 452.41
LOCATION L0005063     VOLUME   476888.027 3746550.611 452.55
LOCATION L0005064     VOLUME   476879.529 3746550.823 452.68
LOCATION L0005065     VOLUME   476871.032 3746551.036 452.82
LOCATION L0005066     VOLUME   476862.535 3746551.248 452.96
LOCATION L0005067     VOLUME   476854.037 3746551.461 453.00
LOCATION L0005068     VOLUME   476845.540 3746551.673 453.00
LOCATION L0005069     VOLUME   476837.043 3746551.885 453.00
LOCATION L0005070     VOLUME   476828.545 3746552.098 453.00
LOCATION L0005071     VOLUME   476820.048 3746552.310 453.00
LOCATION L0005072     VOLUME   476811.551 3746552.523 453.00
LOCATION L0005073     VOLUME   476803.053 3746552.735 453.00
LOCATION L0005074     VOLUME   476794.556 3746552.948 453.00
LOCATION L0005075     VOLUME   476786.062 3746553.060 454.00
LOCATION L0005076     VOLUME   476777.600 3746552.254 454.00
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

				Residential
LOCATION	L0005077	VOLUME	476769.139 3746551.448	454.00
LOCATION	L0005078	VOLUME	476760.677 3746550.642	454.00
LOCATION	L0005079	VOLUME	476752.215 3746549.837	454.00
LOCATION	L0005080	VOLUME	476743.736 3746549.338	454.00
LOCATION	L0005081	VOLUME	476735.237 3746549.192	454.15
LOCATION	L0005082	VOLUME	476726.739 3746549.045	454.44
LOCATION	L0005083	VOLUME	476718.240 3746548.899	454.72
LOCATION	L0005084	VOLUME	476709.741 3746548.752	455.00
LOCATION	L0005085	VOLUME	476701.243 3746548.606	455.00
LOCATION	L0005086	VOLUME	476692.744 3746548.459	455.00
LOCATION	L0005087	VOLUME	476684.245 3746548.312	455.00
LOCATION	L0005088	VOLUME	476675.746 3746548.166	455.00
LOCATION	L0005089	VOLUME	476667.248 3746548.019	455.00
LOCATION	L0005090	VOLUME	476658.749 3746547.873	455.00
LOCATION	L0005091	VOLUME	476650.250 3746547.726	455.00
LOCATION	L0005092	VOLUME	476641.751 3746547.580	455.17
LOCATION	L0005093	VOLUME	476633.906 3746550.312	455.28
LOCATION	L0005094	VOLUME	476626.304 3746554.114	455.32
LOCATION	L0005095	VOLUME	476618.701 3746557.915	455.30
LOCATION	L0005096	VOLUME	476611.098 3746561.716	455.40
LOCATION	L0005097	VOLUME	476603.496 3746565.518	455.56
LOCATION	L0005098	VOLUME	476596.098 3746569.665	455.79
LOCATION	L0005099	VOLUME	476589.121 3746574.519	456.00
LOCATION	L0005100	VOLUME	476582.143 3746579.373	456.00
LOCATION	L0005101	VOLUME	476575.165 3746584.227	456.00
LOCATION	L0005102	VOLUME	476568.188 3746589.081	456.00
LOCATION	L0005103	VOLUME	476561.210 3746593.935	456.00
LOCATION	L0005104	VOLUME	476554.376 3746598.966	456.00
LOCATION	L0005105	VOLUME	476548.214 3746604.820	456.00
LOCATION	L0005106	VOLUME	476542.051 3746610.675	456.00
LOCATION	L0005107	VOLUME	476535.889 3746616.529	456.00
LOCATION	L0005108	VOLUME	476529.726 3746622.383	456.00
LOCATION	L0005109	VOLUME	476523.564 3746628.238	456.00
LOCATION	L0005110	VOLUME	476517.698 3746634.308	456.00
LOCATION	L0005111	VOLUME	476514.020 3746641.971	456.00
LOCATION	L0005112	VOLUME	476510.342 3746649.634	456.00
LOCATION	L0005113	VOLUME	476506.663 3746657.297	456.00
LOCATION	L0005114	VOLUME	476502.985 3746664.960	456.00
LOCATION	L0005115	VOLUME	476499.307 3746672.623	456.02
LOCATION	L0005116	VOLUME	476495.636 3746680.289	456.14
LOCATION	L0005117	VOLUME	476492.183 3746688.056	456.26
LOCATION	L0005118	VOLUME	476488.731 3746695.824	456.37
LOCATION	L0005119	VOLUME	476485.279 3746703.591	456.49
LOCATION	L0005120	VOLUME	476481.827 3746711.359	456.60
LOCATION	L0005121	VOLUME	476478.375 3746719.126	456.65
LOCATION	L0005122	VOLUME	476474.923 3746726.893	456.53
LOCATION	L0005123	VOLUME	476471.470 3746734.661	456.36
LOCATION	L0005124	VOLUME	476468.018 3746742.428	456.18
LOCATION	L0005125	VOLUME	476465.095 3746750.378	456.16
LOCATION	L0005126	VOLUME	476463.034 3746758.624	456.23
LOCATION	L0005127	VOLUME	476460.972 3746766.870	456.30
LOCATION	L0005128	VOLUME	476458.910 3746775.116	456.36
LOCATION	L0005129	VOLUME	476456.849 3746783.363	456.43
LOCATION	L0005130	VOLUME	476454.787 3746791.609	456.50
LOCATION	L0005131	VOLUME	476452.726 3746799.855	456.57
LOCATION	L0005132	VOLUME	476450.664 3746808.101	456.60
LOCATION	L0005133	VOLUME	476448.603 3746816.347	456.47
LOCATION	L0005134	VOLUME	476446.541 3746824.594	456.30
LOCATION	L0005135	VOLUME	476444.480 3746832.840	456.10
LOCATION	L0005136	VOLUME	476442.418 3746841.086	456.00
LOCATION	L0005137	VOLUME	476438.235 3746848.236	456.05
LOCATION	L0005138	VOLUME	476432.703 3746854.690	456.24
LOCATION	L0005139	VOLUME	476427.172 3746861.144	456.42
LOCATION	L0005140	VOLUME	476421.640 3746867.597	456.58
LOCATION	L0005141	VOLUME	476416.108 3746874.051	456.58
LOCATION	L0005142	VOLUME	476410.576 3746880.505	456.51
LOCATION	L0005143	VOLUME	476405.045 3746886.959	456.42

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                                                    Residential
   LOCATION L0005144     VOLUME   476399.513 3746893.412 456.41
   LOCATION L0005145     VOLUME   476393.483 3746899.363 456.49
   LOCATION L0005146     VOLUME   476386.981 3746904.838 456.54
   LOCATION L0005147     VOLUME   476380.479 3746910.313 456.52
   LOCATION L0005148     VOLUME   476373.977 3746915.788 456.48
   LOCATION L0005149     VOLUME   476367.476 3746921.264 456.51
   LOCATION L0005150     VOLUME   476360.872 3746926.545 456.63
   LOCATION L0005151     VOLUME   476352.672 3746928.781 456.83
   LOCATION L0005152     VOLUME   476344.471 3746931.018 456.87
   LOCATION L0005153     VOLUME   476336.271 3746933.254 456.87
   LOCATION L0005154     VOLUME   476328.070 3746935.491 456.92
   LOCATION L0005155     VOLUME   476319.857 3746937.665 457.00
   LOCATION L0005156     VOLUME   476311.423 3746938.719 457.00
   LOCATION L0005157     VOLUME   476302.988 3746939.773 457.00
   LOCATION L0005158     VOLUME   476294.554 3746940.827 457.00
   LOCATION L0005159     VOLUME   476286.120 3746941.882 457.00
   LOCATION L0005160     VOLUME   476277.685 3746942.936 457.00
   LOCATION L0005161     VOLUME   476269.251 3746943.990 457.00
   LOCATION L0005162     VOLUME   476260.817 3746945.045 457.00
   LOCATION L0005163     VOLUME   476252.320 3746945.207 457.00
   LOCATION L0005164     VOLUME   476243.821 3746945.344 457.00
   LOCATION L0005165     VOLUME   476235.322 3746945.482 457.00
   LOCATION L0005166     VOLUME   476226.823 3746945.619 457.04
   LOCATION L0005167     VOLUME   476218.324 3746945.756 457.13
   LOCATION L0005168     VOLUME   476209.825 3746945.893 457.23
   LOCATION L0005169     VOLUME   476201.326 3746946.030 457.32
   LOCATION L0005170     VOLUME   476192.827 3746946.167 457.49
   LOCATION L0005171     VOLUME   476184.328 3746946.304 457.68
   LOCATION L0005172     VOLUME   476175.830 3746946.441 457.87
   LOCATION L0005173     VOLUME   476167.331 3746946.578 458.00
   LOCATION L0005174     VOLUME   476158.832 3746946.715 458.00
   LOCATION L0005175     VOLUME   476150.333 3746946.852 458.00
   LOCATION L0005176     VOLUME   476141.834 3746946.989 458.00
   LOCATION L0005177     VOLUME   476133.335 3746947.127 458.22
   LOCATION L0005178     VOLUME   476124.836 3746947.264 458.50
   LOCATION L0005179     VOLUME   476116.337 3746947.401 458.78
   LOCATION L0005180     VOLUME   476107.838 3746947.538 459.00
   LOCATION L0005181     VOLUME   476099.339 3746947.675 459.00
   LOCATION L0005182     VOLUME   476090.841 3746947.812 459.00
   LOCATION L0005183     VOLUME   476082.342 3746947.949 459.00
   LOCATION L0005184     VOLUME   476073.843 3746948.086 459.20
   LOCATION L0005185     VOLUME   476065.344 3746948.223 459.48
   LOCATION L0005186     VOLUME   476056.845 3746948.360 459.77
   LOCATION L0005187     VOLUME   476048.346 3746948.497 460.00
   LOCATION L0005188     VOLUME   476039.847 3746948.634 460.00
   LOCATION L0005189     VOLUME   476031.348 3746948.771 460.00
** End of LINE VOLUME Source ID = SLINE2
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC 5% Inbound from Nandina
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 2.337E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 479069.910, 3747774.731, 448.00, 0.00, 3.95
** 478273.988, 3747774.731, 449.00, 0.00, 3.95
** 478285.591, 3746765.326, 447.00, 0.00, 3.95
** ----------------------------------------------------------------------
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   LOCATION L0005191     VOLUME   479057.160 3747774.731 448.00
   LOCATION L0005192     VOLUME   479048.660 3747774.731 448.00
   LOCATION L0005193     VOLUME   479040.160 3747774.731 448.00
   LOCATION L0005194     VOLUME   479031.660 3747774.731 448.00
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Residential

LOCATION	L0005195	VOLUME	479023.160 3747774.731	448.00
LOCATION	L0005196	VOLUME	479014.660 3747774.731	448.00
LOCATION	L0005197	VOLUME	479006.160 3747774.731	448.00
LOCATION	L0005198	VOLUME	478997.660 3747774.731	448.00
LOCATION	L0005199	VOLUME	478989.160 3747774.731	448.00
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LOCATION	L0005202	VOLUME	478963.660 3747774.731	448.00
LOCATION	L0005203	VOLUME	478955.160 3747774.731	448.00
LOCATION	L0005204	VOLUME	478946.660 3747774.731	448.00
LOCATION	L0005205	VOLUME	478938.160 3747774.731	448.00
LOCATION	L0005206	VOLUME	478929.660 3747774.731	448.00
LOCATION	L0005207	VOLUME	478921.160 3747774.731	448.00
LOCATION	L0005208	VOLUME	478912.660 3747774.731	448.00
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LOCATION	L0005210	VOLUME	478895.660 3747774.731	448.04
LOCATION	L0005211	VOLUME	478887.160 3747774.731	448.12
LOCATION	L0005212	VOLUME	478878.660 3747774.731	448.20
LOCATION	L0005213	VOLUME	478870.160 3747774.731	448.28
LOCATION	L0005214	VOLUME	478861.660 3747774.731	448.48
LOCATION	L0005215	VOLUME	478853.160 3747774.731	448.68
LOCATION	L0005216	VOLUME	478844.660 3747774.731	448.89
LOCATION	L0005217	VOLUME	478836.160 3747774.731	449.00
LOCATION	L0005218	VOLUME	478827.660 3747774.731	449.00
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LOCATION	L0005221	VOLUME	478802.160 3747774.731	449.00
LOCATION	L0005222	VOLUME	478793.660 3747774.731	449.00
LOCATION	L0005223	VOLUME	478785.160 3747774.731	449.00
LOCATION	L0005224	VOLUME	478776.660 3747774.731	449.00
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LOCATION	L0005241	VOLUME	478632.160 3747774.731	449.00
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LOCATION	L0005243	VOLUME	478615.160 3747774.731	449.00
LOCATION	L0005244	VOLUME	478606.660 3747774.731	449.00
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LOCATION	L0005254	VOLUME	478521.660 3747774.731	449.00
LOCATION	L0005255	VOLUME	478513.160 3747774.731	449.00
LOCATION	L0005256	VOLUME	478504.660 3747774.731	449.00
LOCATION	L0005257	VOLUME	478496.160 3747774.731	449.00
LOCATION	L0005258	VOLUME	478487.660 3747774.731	449.00
LOCATION	L0005259	VOLUME	478479.160 3747774.731	449.00
LOCATION	L0005260	VOLUME	478470.660 3747774.731	449.00
LOCATION	L0005261	VOLUME	478462.160 3747774.731	449.00

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                                                  Residential
LOCATION L0005262     VOLUME   478453.660 3747774.731 449.00
LOCATION L0005263     VOLUME   478445.160 3747774.731 449.00
LOCATION L0005264     VOLUME   478436.660 3747774.731 449.00
LOCATION L0005265     VOLUME   478428.160 3747774.731 449.00
LOCATION L0005266     VOLUME   478419.660 3747774.731 449.00
LOCATION L0005267     VOLUME   478411.160 3747774.731 449.00
LOCATION L0005268     VOLUME   478402.660 3747774.731 449.00
LOCATION L0005269     VOLUME   478394.160 3747774.731 449.00
LOCATION L0005270     VOLUME   478385.660 3747774.731 449.00
LOCATION L0005271     VOLUME   478377.160 3747774.731 449.00
LOCATION L0005272     VOLUME   478368.660 3747774.731 449.00
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LOCATION L0005296     VOLUME   478275.245 3747665.409 448.64
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LOCATION	L0005392	VOLUME	478284.624 3746849.463	447.73
LOCATION	L0005393	VOLUME	478284.721 3746840.964	447.58
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   LOCATION L0005398     VOLUME   478285.210 3746798.467 447.00
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   LOCATION L0005401     VOLUME   478285.503 3746772.968 447.00
** End of LINE VOLUME Source ID = SLINE3
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC 5% Outbound to Nandina
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 3.666E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
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   LOCATION L0005421     VOLUME   478904.160 3747774.731 448.00
   LOCATION L0005422     VOLUME   478895.660 3747774.731 448.04
   LOCATION L0005423     VOLUME   478887.160 3747774.731 448.12
   LOCATION L0005424     VOLUME   478878.660 3747774.731 448.20
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   LOCATION L0005426     VOLUME   478861.660 3747774.731 448.48
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   LOCATION L0005446     VOLUME   478691.660 3747774.731 449.00
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LOCATION	L0005475	VOLUME	478445.160	3747774.731	449.00
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LOCATION	L0005513	VOLUME	478275.733	3747622.912	448.00

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LOCATION L0005567     VOLUME   478281.009 3747163.942 448.00
LOCATION L0005568     VOLUME   478281.107 3747155.443 448.00
LOCATION L0005569     VOLUME   478281.204 3747146.944 448.00
LOCATION L0005570     VOLUME   478281.302 3747138.444 448.00
LOCATION L0005571     VOLUME   478281.400 3747129.945 448.00
LOCATION L0005572     VOLUME   478281.497 3747121.445 448.00
LOCATION L0005573     VOLUME   478281.595 3747112.946 448.00
LOCATION L0005574     VOLUME   478281.693 3747104.446 448.00
LOCATION L0005575     VOLUME   478281.791 3747095.947 448.00
LOCATION L0005576     VOLUME   478281.888 3747087.447 448.00
LOCATION L0005577     VOLUME   478281.986 3747078.948 448.00
LOCATION L0005578     VOLUME   478282.084 3747070.449 448.00
LOCATION L0005579     VOLUME   478282.181 3747061.949 448.00
LOCATION L0005580     VOLUME   478282.279 3747053.450 448.00
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                                                    Residential
   LOCATION L0005581     VOLUME   478282.377 3747044.950 448.00
   LOCATION L0005582     VOLUME   478282.474 3747036.451 448.00
   LOCATION L0005583     VOLUME   478282.572 3747027.951 448.00
   LOCATION L0005584     VOLUME   478282.670 3747019.452 448.00
   LOCATION L0005585     VOLUME   478282.768 3747010.953 448.00
   LOCATION L0005586     VOLUME   478282.865 3747002.453 448.00
   LOCATION L0005587     VOLUME   478282.963 3746993.954 448.00
   LOCATION L0005588     VOLUME   478283.061 3746985.454 448.00
   LOCATION L0005589     VOLUME   478283.158 3746976.955 448.00
   LOCATION L0005590     VOLUME   478283.256 3746968.455 448.00
   LOCATION L0005591     VOLUME   478283.354 3746959.956 448.00
   LOCATION L0005592     VOLUME   478283.451 3746951.456 448.00
   LOCATION L0005593     VOLUME   478283.549 3746942.957 448.00
   LOCATION L0005594     VOLUME   478283.647 3746934.458 448.00
   LOCATION L0005595     VOLUME   478283.744 3746925.958 448.00
   LOCATION L0005596     VOLUME   478283.842 3746917.459 448.00
   LOCATION L0005597     VOLUME   478283.940 3746908.959 448.00
   LOCATION L0005598     VOLUME   478284.038 3746900.460 448.00
   LOCATION L0005599     VOLUME   478284.135 3746891.960 448.00
   LOCATION L0005600     VOLUME   478284.233 3746883.461 448.00
   LOCATION L0005601     VOLUME   478284.331 3746874.962 448.00
   LOCATION L0005602     VOLUME   478284.428 3746866.462 448.00
   LOCATION L0005603     VOLUME   478284.526 3746857.963 447.87
   LOCATION L0005604     VOLUME   478284.624 3746849.463 447.73
   LOCATION L0005605     VOLUME   478284.721 3746840.964 447.58
   LOCATION L0005606     VOLUME   478284.819 3746832.464 447.44
   LOCATION L0005607     VOLUME   478284.917 3746823.965 447.30
   LOCATION L0005608     VOLUME   478285.014 3746815.465 447.15
   LOCATION L0005609     VOLUME   478285.112 3746806.966 447.01
   LOCATION L0005610     VOLUME   478285.210 3746798.467 447.00
   LOCATION L0005611     VOLUME   478285.308 3746789.967 447.00
   LOCATION L0005612     VOLUME   478285.405 3746781.468 447.00
   LOCATION L0005613     VOLUME   478285.503 3746772.968 447.00
** End of LINE VOLUME Source ID = SLINE4
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC 5% Outbound to Grove View Road
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 6.878E-07
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 478283.814, 3746782.935, 447.00, 0.00, 3.95
** 478280.367, 3746965.630, 448.00, 0.00, 3.95
** 479081.812, 3746958.736, 446.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0005614     VOLUME   478283.734 3746787.184 447.00
   LOCATION L0005615     VOLUME   478283.573 3746795.682 447.00
   LOCATION L0005616     VOLUME   478283.413 3746804.181 447.00
   LOCATION L0005617     VOLUME   478283.253 3746812.679 447.12
   LOCATION L0005618     VOLUME   478283.092 3746821.178 447.28
   LOCATION L0005619     VOLUME   478282.932 3746829.676 447.44
   LOCATION L0005620     VOLUME   478282.772 3746838.175 447.60
   LOCATION L0005621     VOLUME   478282.611 3746846.673 447.72
   LOCATION L0005622     VOLUME   478282.451 3746855.172 447.85
   LOCATION L0005623     VOLUME   478282.290 3746863.670 447.97
   LOCATION L0005624     VOLUME   478282.130 3746872.169 448.00
   LOCATION L0005625     VOLUME   478281.970 3746880.667 448.00
   LOCATION L0005626     VOLUME   478281.809 3746889.166 448.00
   LOCATION L0005627     VOLUME   478281.649 3746897.664 448.00
   LOCATION L0005628     VOLUME   478281.489 3746906.163 448.00
   LOCATION L0005629     VOLUME   478281.328 3746914.661 448.00
   LOCATION L0005630     VOLUME   478281.168 3746923.160 448.00
   LOCATION L0005631     VOLUME   478281.008 3746931.658 448.00
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				Residential
LOCATION	L0005632	VOLUME	478280.847 3746940.157	448.00
LOCATION	L0005633	VOLUME	478280.687 3746948.655	448.00
LOCATION	L0005634	VOLUME	478280.527 3746957.154	448.00
LOCATION	L0005635	VOLUME	478280.389 3746965.630	448.00
LOCATION	L0005636	VOLUME	478288.889 3746965.556	448.00
LOCATION	L0005637	VOLUME	478297.388 3746965.483	448.00
LOCATION	L0005638	VOLUME	478305.888 3746965.410	448.00
LOCATION	L0005639	VOLUME	478314.388 3746965.337	448.00
LOCATION	L0005640	VOLUME	478322.888 3746965.264	448.00
LOCATION	L0005641	VOLUME	478331.387 3746965.191	448.00
LOCATION	L0005642	VOLUME	478339.887 3746965.118	448.00
LOCATION	L0005643	VOLUME	478348.387 3746965.045	448.00
LOCATION	L0005644	VOLUME	478356.886 3746964.972	448.00
LOCATION	L0005645	VOLUME	478365.386 3746964.898	447.87
LOCATION	L0005646	VOLUME	478373.886 3746964.825	447.67
LOCATION	L0005647	VOLUME	478382.385 3746964.752	447.46
LOCATION	L0005648	VOLUME	478390.885 3746964.679	447.27
LOCATION	L0005649	VOLUME	478399.385 3746964.606	447.19
LOCATION	L0005650	VOLUME	478407.884 3746964.533	447.11
LOCATION	L0005651	VOLUME	478416.384 3746964.460	447.03
LOCATION	L0005652	VOLUME	478424.884 3746964.387	447.00
LOCATION	L0005653	VOLUME	478433.383 3746964.313	447.00
LOCATION	L0005654	VOLUME	478441.883 3746964.240	447.00
LOCATION	L0005655	VOLUME	478450.383 3746964.167	447.00
LOCATION	L0005656	VOLUME	478458.882 3746964.094	447.00
LOCATION	L0005657	VOLUME	478467.382 3746964.021	447.00
LOCATION	L0005658	VOLUME	478475.882 3746963.948	447.00
LOCATION	L0005659	VOLUME	478484.382 3746963.875	447.00
LOCATION	L0005660	VOLUME	478492.881 3746963.802	447.00
LOCATION	L0005661	VOLUME	478501.381 3746963.729	447.00
LOCATION	L0005662	VOLUME	478509.881 3746963.655	447.00
LOCATION	L0005663	VOLUME	478518.380 3746963.582	447.00
LOCATION	L0005664	VOLUME	478526.880 3746963.509	447.00
LOCATION	L0005665	VOLUME	478535.380 3746963.436	447.00
LOCATION	L0005666	VOLUME	478543.879 3746963.363	447.00
LOCATION	L0005667	VOLUME	478552.379 3746963.290	447.00
LOCATION	L0005668	VOLUME	478560.879 3746963.217	447.00
LOCATION	L0005669	VOLUME	478569.378 3746963.144	447.00
LOCATION	L0005670	VOLUME	478577.878 3746963.071	447.00
LOCATION	L0005671	VOLUME	478586.378 3746962.997	447.00
LOCATION	L0005672	VOLUME	478594.877 3746962.924	447.00
LOCATION	L0005673	VOLUME	478603.377 3746962.851	447.00
LOCATION	L0005674	VOLUME	478611.877 3746962.778	447.00
LOCATION	L0005675	VOLUME	478620.376 3746962.705	447.00
LOCATION	L0005676	VOLUME	478628.876 3746962.632	447.00
LOCATION	L0005677	VOLUME	478637.376 3746962.559	447.00
LOCATION	L0005678	VOLUME	478645.876 3746962.486	447.00
LOCATION	L0005679	VOLUME	478654.375 3746962.412	447.00
LOCATION	L0005680	VOLUME	478662.875 3746962.339	446.92
LOCATION	L0005681	VOLUME	478671.375 3746962.266	446.69
LOCATION	L0005682	VOLUME	478679.874 3746962.193	446.47
LOCATION	L0005683	VOLUME	478688.374 3746962.120	446.24
LOCATION	L0005684	VOLUME	478696.874 3746962.047	446.19
LOCATION	L0005685	VOLUME	478705.373 3746961.974	446.19
LOCATION	L0005686	VOLUME	478713.873 3746961.901	446.19
LOCATION	L0005687	VOLUME	478722.373 3746961.828	446.17
LOCATION	L0005688	VOLUME	478730.872 3746961.754	446.12
LOCATION	L0005689	VOLUME	478739.372 3746961.681	446.06
LOCATION	L0005690	VOLUME	478747.872 3746961.608	446.01
LOCATION	L0005691	VOLUME	478756.371 3746961.535	446.00
LOCATION	L0005692	VOLUME	478764.871 3746961.462	446.00
LOCATION	L0005693	VOLUME	478773.371 3746961.389	446.00
LOCATION	L0005694	VOLUME	478781.871 3746961.316	446.00
LOCATION	L0005695	VOLUME	478790.370 3746961.243	446.00
LOCATION	L0005696	VOLUME	478798.870 3746961.170	446.00
LOCATION	L0005697	VOLUME	478807.370 3746961.096	446.00
LOCATION	L0005698	VOLUME	478815.869 3746961.023	446.00

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                                                    Residential
   LOCATION L0005699     VOLUME   478824.369 3746960.950 446.00
   LOCATION L0005700     VOLUME   478832.869 3746960.877 446.00
   LOCATION L0005701     VOLUME   478841.368 3746960.804 446.00
   LOCATION L0005702     VOLUME   478849.868 3746960.731 446.00
   LOCATION L0005703     VOLUME   478858.368 3746960.658 446.00
   LOCATION L0005704     VOLUME   478866.867 3746960.585 446.00
   LOCATION L0005705     VOLUME   478875.367 3746960.511 446.00
   LOCATION L0005706     VOLUME   478883.867 3746960.438 446.00
   LOCATION L0005707     VOLUME   478892.366 3746960.365 446.00
   LOCATION L0005708     VOLUME   478900.866 3746960.292 446.00
   LOCATION L0005709     VOLUME   478909.366 3746960.219 446.00
   LOCATION L0005710     VOLUME   478917.865 3746960.146 446.00
   LOCATION L0005711     VOLUME   478926.365 3746960.073 446.00
   LOCATION L0005712     VOLUME   478934.865 3746960.000 446.00
   LOCATION L0005713     VOLUME   478943.365 3746959.927 446.00
   LOCATION L0005714     VOLUME   478951.864 3746959.853 446.00
   LOCATION L0005715     VOLUME   478960.364 3746959.780 446.00
   LOCATION L0005716     VOLUME   478968.864 3746959.707 446.00
   LOCATION L0005717     VOLUME   478977.363 3746959.634 446.00
   LOCATION L0005718     VOLUME   478985.863 3746959.561 446.00
   LOCATION L0005719     VOLUME   478994.363 3746959.488 446.00
   LOCATION L0005720     VOLUME   479002.862 3746959.415 446.00
   LOCATION L0005721     VOLUME   479011.362 3746959.342 446.00
   LOCATION L0005722     VOLUME   479019.862 3746959.269 446.00
   LOCATION L0005723     VOLUME   479028.361 3746959.195 446.00
   LOCATION L0005724     VOLUME   479036.861 3746959.122 446.00
   LOCATION L0005725     VOLUME   479045.361 3746959.049 446.00
   LOCATION L0005726     VOLUME   479053.860 3746958.976 446.00
   LOCATION L0005727     VOLUME   479062.360 3746958.903 446.00
   LOCATION L0005728     VOLUME   479070.860 3746958.830 446.00
   LOCATION L0005729     VOLUME   479079.360 3746958.757 446.00
** End of LINE VOLUME Source ID = SLINE5
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00005984
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477923.678, 3746810.357, 448.00, 0.00, 3.95
** 478177.247, 3746809.187, 448.00, 0.00, 3.95
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   LOCATION L0005730     VOLUME   477927.928 3746810.338 448.00
   LOCATION L0005731     VOLUME   477936.428 3746810.298 448.00
   LOCATION L0005732     VOLUME   477944.928 3746810.259 448.00
   LOCATION L0005733     VOLUME   477953.428 3746810.220 448.00
   LOCATION L0005734     VOLUME   477961.928 3746810.181 448.00
   LOCATION L0005735     VOLUME   477970.428 3746810.142 448.00
   LOCATION L0005736     VOLUME   477978.928 3746810.102 448.00
   LOCATION L0005737     VOLUME   477987.428 3746810.063 448.00
   LOCATION L0005738     VOLUME   477995.928 3746810.024 448.00
   LOCATION L0005739     VOLUME   478004.428 3746809.985 448.00
   LOCATION L0005740     VOLUME   478012.927 3746809.946 448.00
   LOCATION L0005741     VOLUME   478021.427 3746809.906 448.00
   LOCATION L0005742     VOLUME   478029.927 3746809.867 448.00
   LOCATION L0005743     VOLUME   478038.427 3746809.828 448.00
   LOCATION L0005744     VOLUME   478046.927 3746809.789 448.00
   LOCATION L0005745     VOLUME   478055.427 3746809.749 448.00
   LOCATION L0005746     VOLUME   478063.927 3746809.710 448.00
   LOCATION L0005747     VOLUME   478072.427 3746809.671 448.00
   LOCATION L0005748     VOLUME   478080.927 3746809.632 448.00
   LOCATION L0005749     VOLUME   478089.427 3746809.593 448.00
   LOCATION L0005750     VOLUME   478097.927 3746809.553 448.00
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                                                  Residential
   LOCATION L0005751     VOLUME   478106.426 3746809.514 448.00
   LOCATION L0005752     VOLUME   478114.926 3746809.475 448.00
   LOCATION L0005753     VOLUME   478123.426 3746809.436 448.00
   LOCATION L0005754     VOLUME   478131.926 3746809.396 448.00
   LOCATION L0005755     VOLUME   478140.426 3746809.357 448.00
   LOCATION L0005756     VOLUME   478148.926 3746809.318 448.00
   LOCATION L0005757     VOLUME   478157.426 3746809.279 448.00
   LOCATION L0005758     VOLUME   478165.926 3746809.240 448.00
   LOCATION L0005759     VOLUME   478174.426 3746809.200 448.00
** End of LINE VOLUME Source ID = SLINE6
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002028
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 478271.074, 3746792.209, 447.08, 0.00, 3.95
** 478177.349, 3746791.961, 448.00, 0.00, 3.95
** 477890.952, 3746791.463, 448.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0005760     VOLUME   478266.824 3746792.198 447.05
   LOCATION L0005761     VOLUME   478258.324 3746792.175 447.21
   LOCATION L0005762     VOLUME   478249.824 3746792.153 447.36
   LOCATION L0005763     VOLUME   478241.324 3746792.130 447.51
   LOCATION L0005764     VOLUME   478232.824 3746792.108 447.64
   LOCATION L0005765     VOLUME   478224.325 3746792.085 447.77
   LOCATION L0005766     VOLUME   478215.825 3746792.063 447.91
   LOCATION L0005767     VOLUME   478207.325 3746792.040 448.00
   LOCATION L0005768     VOLUME   478198.825 3746792.018 448.00
   LOCATION L0005769     VOLUME   478190.325 3746791.995 448.00
   LOCATION L0005770     VOLUME   478181.825 3746791.972 448.00
   LOCATION L0005771     VOLUME   478173.325 3746791.954 448.00
   LOCATION L0005772     VOLUME   478164.825 3746791.939 448.00
   LOCATION L0005773     VOLUME   478156.325 3746791.924 448.00
   LOCATION L0005774     VOLUME   478147.825 3746791.909 448.00
   LOCATION L0005775     VOLUME   478139.325 3746791.895 448.00
   LOCATION L0005776     VOLUME   478130.825 3746791.880 448.00
   LOCATION L0005777     VOLUME   478122.325 3746791.865 448.00
   LOCATION L0005778     VOLUME   478113.825 3746791.850 448.00
   LOCATION L0005779     VOLUME   478105.325 3746791.836 448.00
   LOCATION L0005780     VOLUME   478096.825 3746791.821 448.00
   LOCATION L0005781     VOLUME   478088.325 3746791.806 448.00
   LOCATION L0005782     VOLUME   478079.825 3746791.791 448.00
   LOCATION L0005783     VOLUME   478071.325 3746791.777 448.00
   LOCATION L0005784     VOLUME   478062.825 3746791.762 448.00
   LOCATION L0005785     VOLUME   478054.325 3746791.747 448.00
   LOCATION L0005786     VOLUME   478045.825 3746791.732 448.00
   LOCATION L0005787     VOLUME   478037.325 3746791.717 448.00
   LOCATION L0005788     VOLUME   478028.825 3746791.703 448.00
   LOCATION L0005789     VOLUME   478020.325 3746791.688 448.00
   LOCATION L0005790     VOLUME   478011.825 3746791.673 448.00
   LOCATION L0005791     VOLUME   478003.325 3746791.658 448.00
   LOCATION L0005792     VOLUME   477994.825 3746791.644 448.00
   LOCATION L0005793     VOLUME   477986.325 3746791.629 448.00
   LOCATION L0005794     VOLUME   477977.825 3746791.614 448.00
   LOCATION L0005795     VOLUME   477969.325 3746791.599 448.00
   LOCATION L0005796     VOLUME   477960.825 3746791.585 448.00
   LOCATION L0005797     VOLUME   477952.325 3746791.570 448.00
   LOCATION L0005798     VOLUME   477943.825 3746791.555 448.00
   LOCATION L0005799     VOLUME   477935.325 3746791.540 448.00
   LOCATION L0005800     VOLUME   477926.825 3746791.526 448.00
   LOCATION L0005801     VOLUME   477918.325 3746791.511 448.00
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                                                Residential
   LOCATION L0005802     VOLUME   477909.825 3746791.496 448.00
   LOCATION L0005803     VOLUME   477901.325 3746791.481 448.00
   LOCATION L0005804     VOLUME   477892.825 3746791.467 448.00
** End of LINE VOLUME Source ID = SLINE7
   LOCATION STCK1        POINT      477935.000  3746812.710      448.000
** DESCRSRC TRU Idling
   LOCATION STCK2        POINT      477996.522  3746810.249      448.000
** DESCRSRC TRU Idling
   LOCATION STCK3        POINT      478082.653  3746811.233      448.000
** DESCRSRC TRU Idling
   LOCATION STCK4        POINT      478157.955  3746809.757      448.000
** DESCRSRC TRU Idling
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0004494     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004495     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004496     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004497     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004498     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004499     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004500     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004501     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004502     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004503     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004504     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004505     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004506     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004507     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004508     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004509     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004510     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004511     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004512     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004513     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004514     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004515     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004516     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004517     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004518     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004519     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004520     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004521     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004522     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004523     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004524     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004525     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004526     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004527     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004528     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004529     0.0000001128      0.00      3.95      1.86
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   SRCPARAM L0004532     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004533     0.0000001128      0.00      3.95      1.86
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   SRCPARAM L0004544     0.0000001128      0.00      3.95      1.86
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   SRCPARAM L0004546     0.0000001128      0.00      3.95      1.86
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SRCPARAM L0004569     0.0000001128      0.00       3.95      1.86
SRCPARAM L0004570     0.0000001128      0.00       3.95      1.86
SRCPARAM L0004571     0.0000001128      0.00       3.95      1.86
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SRCPARAM L0004579     0.0000001128      0.00       3.95      1.86
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SRCPARAM L0004680     0.0000001128      0.00       3.95       1.86
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   SRCPARAM L0004820     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004821     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004822     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004823     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004824     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004825     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004826     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004827     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004828     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004829     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004830     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004831     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004832     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004833     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004834     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004835     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004836     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004837     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004838     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004839     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004840     0.0000001128      0.00      3.95      1.86
   SRCPARAM L0004841     0.0000001128      0.00      3.95      1.86
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   SRCPARAM L0004843     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004844     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004845     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004846     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004847     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004848     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004849     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004850     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004851     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004852     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004853     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004854     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004855     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004856     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004857     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004858     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004859     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004860     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004861     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004862     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004863     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004864     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004865     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004866     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004867     0.0000001068      0.00      3.95      1.86
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   SRCPARAM L0004869     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004870     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004871     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004872     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004873     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004874     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004875     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004876     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004877     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004878     0.0000001068      0.00      3.95      1.86
   SRCPARAM L0004879     0.0000001068      0.00      3.95      1.86
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                                                Residential
SRCPARAM L0004880     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004881     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004882     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004883     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0004890     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004891     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004892     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004893     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004894     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004895     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004896     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004897     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004898     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004899     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004900     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004901     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004902     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004903     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004904     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004905     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004906     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004907     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004908     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004909     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004910     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004911     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004912     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004913     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004914     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004915     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004916     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004917     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004918     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004919     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0004921     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0004925     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0004927     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0004933     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004934     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004935     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004936     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004937     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004938     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0004940     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004941     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004942     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004943     0.0000001068      0.00       3.95       1.86
SRCPARAM L0004944     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0004946     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0004962     0.0000001068      0.00       3.95      1.86
SRCPARAM L0004963     0.0000001068      0.00       3.95      1.86
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SRCPARAM L0004965     0.0000001068      0.00       3.95      1.86
SRCPARAM L0004966     0.0000001068      0.00       3.95      1.86
SRCPARAM L0004967     0.0000001068      0.00       3.95      1.86
SRCPARAM L0004968     0.0000001068      0.00       3.95      1.86
SRCPARAM L0004969     0.0000001068      0.00       3.95      1.86
SRCPARAM L0004970     0.0000001068      0.00       3.95      1.86
SRCPARAM L0004971     0.0000001068      0.00       3.95      1.86
SRCPARAM L0004972     0.0000001068      0.00       3.95      1.86
SRCPARAM L0004973     0.0000001068      0.00       3.95      1.86
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SRCPARAM L0004975     0.0000001068      0.00       3.95      1.86
SRCPARAM L0004976     0.0000001068      0.00       3.95      1.86
SRCPARAM L0004977     0.0000001068      0.00       3.95      1.86
SRCPARAM L0004978     0.0000001068      0.00       3.95      1.86
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SRCPARAM L0004983     0.0000001068      0.00       3.95      1.86
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SRCPARAM L0004989     0.0000001068      0.00       3.95      1.86
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SRCPARAM L0004992     0.0000001068      0.00       3.95      1.86
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SRCPARAM L0005002     0.0000001068      0.00       3.95      1.86
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SRCPARAM L0005013     0.0000001068      0.00       3.95      1.86
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SRCPARAM L0005019     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0005021     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005022     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0005024     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005025     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005026     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005027     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005028     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005029     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005030     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005031     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005032     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0005041     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0005072     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0005075     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005076     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005077     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005078     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005079     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005080     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0005082     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005083     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0005086     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005087     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005088     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005089     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005090     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0005092     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0005095     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005096     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005097     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005098     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005099     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005100     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005101     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005102     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005103     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005104     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005105     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005106     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005107     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005108     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005109     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005110     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005111     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005112     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0005114     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005115     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0005117     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005118     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0005121     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0005127     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005128     0.0000001068      0.00       3.95       1.86
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SRCPARAM L0005131     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005132     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005133     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005134     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005135     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005136     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005137     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005138     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005139     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005140     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005141     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005142     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005143     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005144     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005145     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005146     0.0000001068      0.00       3.95       1.86
SRCPARAM L0005147     0.0000001068      0.00       3.95       1.86
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                Residential
   SRCPARAM L0005148     0.0000001068      0.00       3.95      1.86
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   SRCPARAM L0005152     0.0000001068      0.00       3.95      1.86
   SRCPARAM L0005153     0.0000001068      0.00       3.95      1.86
   SRCPARAM L0005154     0.0000001068      0.00       3.95      1.86
   SRCPARAM L0005155     0.0000001068      0.00       3.95      1.86
   SRCPARAM L0005156     0.0000001068      0.00       3.95      1.86
   SRCPARAM L0005157     0.0000001068      0.00       3.95      1.86
   SRCPARAM L0005158     0.0000001068      0.00       3.95      1.86
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   SRCPARAM L0005163     0.0000001068      0.00       3.95      1.86
   SRCPARAM L0005164     0.0000001068      0.00       3.95      1.86
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   SRCPARAM L0005167     0.0000001068      0.00       3.95      1.86
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   SRCPARAM L0005169     0.0000001068      0.00       3.95      1.86
   SRCPARAM L0005170     0.0000001068      0.00       3.95      1.86
   SRCPARAM L0005171     0.0000001068      0.00       3.95      1.86
   SRCPARAM L0005172     0.0000001068      0.00       3.95      1.86
   SRCPARAM L0005173     0.0000001068      0.00       3.95      1.86
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   SRCPARAM L0005178     0.0000001068      0.00       3.95      1.86
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   SRCPARAM L0005182     0.0000001068      0.00       3.95      1.86
   SRCPARAM L0005183     0.0000001068      0.00       3.95      1.86
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   SRCPARAM L0005189     0.0000001068      0.00       3.95      1.86
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   SRCPARAM L0005196     0.00000001102      0.00       3.95      1.86
   SRCPARAM L0005197     0.00000001102      0.00       3.95      1.86
   SRCPARAM L0005198     0.00000001102      0.00       3.95      1.86
   SRCPARAM L0005199     0.00000001102      0.00       3.95      1.86
   SRCPARAM L0005200     0.00000001102      0.00       3.95      1.86
   SRCPARAM L0005201     0.00000001102      0.00       3.95      1.86
   SRCPARAM L0005202     0.00000001102      0.00       3.95      1.86
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   SRCPARAM L0005207     0.00000001102      0.00       3.95      1.86
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   SRCPARAM L0005211     0.00000001102      0.00       3.95      1.86
   SRCPARAM L0005212     0.00000001102      0.00       3.95      1.86
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					Residential
SRCPARAM	L0005213	0.00000001102	0.00	3.95	1.86
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SRCPARAM	L0005216	0.00000001102	0.00	3.95	1.86
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SRCPARAM	L0005218	0.00000001102	0.00	3.95	1.86
SRCPARAM	L0005219	0.00000001102	0.00	3.95	1.86
SRCPARAM	L0005220	0.00000001102	0.00	3.95	1.86
SRCPARAM	L0005221	0.00000001102	0.00	3.95	1.86
SRCPARAM	L0005222	0.00000001102	0.00	3.95	1.86
SRCPARAM	L0005223	0.00000001102	0.00	3.95	1.86
SRCPARAM	L0005224	0.00000001102	0.00	3.95	1.86
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SRCPARAM	L0005228	0.00000001102	0.00	3.95	1.86
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SRCPARAM	L0005270	0.00000001102	0.00	3.95	1.86
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                                                Residential
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SRCPARAM L0005346     0.00000001102      0.00      3.95      1.86
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   SRCPARAM L0005392     0.00000001102      0.00      3.95      1.86
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   SRCPARAM L0005398     0.00000001102      0.00      3.95      1.86
   SRCPARAM L0005399     0.00000001102      0.00      3.95      1.86
   SRCPARAM L0005400     0.00000001102      0.00      3.95      1.86
   SRCPARAM L0005401     0.00000001102      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
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                                                Residential
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SRCPARAM L0005478     0.00000001729      0.00      3.95      1.86
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SRCPARAM L0005539     0.00000001729      0.00      3.95      1.86
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SRCPARAM L0005566     0.00000001729      0.00      3.95      1.86
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SRCPARAM L0005612     0.00000001729      0.00      3.95      1.86
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   SRCPARAM L0005676     0.000000005929      0.00      3.95      1.86
   SRCPARAM L0005677     0.000000005929      0.00      3.95      1.86
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                Residential
   SRCPARAM L0005678     0.000000005929      0.00      3.95      1.86
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   SRCPARAM L0005700     0.000000005929      0.00      3.95      1.86
   SRCPARAM L0005701     0.000000005929      0.00      3.95      1.86
   SRCPARAM L0005702     0.000000005929      0.00      3.95      1.86
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   SRCPARAM L0005729     0.000000005929      0.00      3.95      1.86
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   SRCPARAM L0005759     0.000001995      0.00      3.95      1.86
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   SRCPARAM L0005781     0.0000004507      0.00      3.95      1.86
   SRCPARAM L0005782     0.0000004507      0.00      3.95      1.86
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   SRCPARAM STCK2        0.000025549     3.960   501.000  49.98300     0.044
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   SRCPARAM STCK3        0.000025549     3.960   501.000  49.98300     0.044
   SRCPARAM STCK4        0.000025549     3.960   501.000  49.98300     0.044
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Worker"
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   EMISFACT STCK3        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STCK4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT STCK4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT STCK4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED Worker.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\peri8.sfc
   PROFFILE ..\peri8.PFL
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL WORKER.AD\AN00GALL.PLT 31
   SUMMFILE Worker.sum
OU FINISHED

 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:11:49

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for  1315 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:   1315 Source(s);       1 Source Group(s); and      16 Receptor(s)

               with:      4 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:   1311 VOLUME source(s)
                and:      0 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

 **The AERMET Input Meteorological Data Version Date: 14134

 **Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ; Decay Coef. =   0.000   ; Rot. Angle
=   0.0
                  Emission Units = GRAMS/SEC   ; Emission Rate Unit Factor =
0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =   4.3 MB of RAM.

 **Detailed Error/Message File: Worker.err

 **File for Summary of Results: Worker.sum

♀ *** AERMOD - VERSION 15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc   ***
    06/30/16
 *** AERMET - VERSION 14134 ***   ***   ***
   13:11:49

   PAGE   2
 **MODELOPTs: RegDFAULT CONC   ELEV   URBAN

                                          *** POINT SOURCE DATA ***

              NUMBER EMISSION RATE   BASE   STACK   STACK   STACK   STACK   BLDG   URBAN
CAP/ EMIS RATE
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT TEMP.   EXIT VEL. DIAMETER EXISTS SOURCE
HOR   SCALAR
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (DEG.K) (M/SEC) (METERS)
    VARY BY
 -
- - - - - - - -

 STCK1   0   0.25549E-04 477935.0 3746812.7   448.0   3.96   501.00   49.98   0.04   NO   YES
NO HROFDY
 STCK2   0   0.25549E-04 477996.5 3746810.2   448.0   3.96   501.00   49.98   0.04   NO   YES
NO HROFDY
 STCK3   0   0.25549E-04 478082.7 3746811.2   448.0   3.96   501.00   49.98   0.04   NO   YES
NO HROFDY
 STCK4   0   0.25549E-04 478158.0 3746809.8   448.0   3.96   501.00   49.98   0.04   NO   YES
NO HROFDY
♀ *** AERMOD - VERSION 15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc   ***
    06/30/16
 *** AERMET - VERSION 14134 ***   ***   ***
   13:11:49

   PAGE   3
 **MODELOPTs: RegDFAULT CONC   ELEV   URBAN

                                          *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE   BASE   RELEASE   INIT.   INIT.   URBAN EMISSION RATE
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT   SY   SZ   SOURCE SCALAR VARY
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)   BY
 -
- - - -

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0004494	0	0.11280E-06	478284.5	3746785.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004495	0	0.11280E-06	478284.5	3746777.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004496	0	0.11280E-06	478284.6	3746768.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004497	0	0.11280E-06	478284.6	3746760.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004498	0	0.11280E-06	478284.6	3746751.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004499	0	0.11280E-06	478284.7	3746743.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004500	0	0.11280E-06	478284.7	3746734.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004501	0	0.11280E-06	478284.7	3746726.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004502	0	0.11280E-06	478284.8	3746717.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004503	0	0.11280E-06	478284.8	3746709.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004504	0	0.11280E-06	478284.8	3746700.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004505	0	0.11280E-06	478284.9	3746692.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004506	0	0.11280E-06	478284.9	3746683.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004507	0	0.11280E-06	478284.9	3746675.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004508	0	0.11280E-06	478284.9	3746666.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004509	0	0.11280E-06	478285.0	3746658.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004510	0	0.11280E-06	478285.0	3746649.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004511	0	0.11280E-06	478285.0	3746641.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004512	0	0.11280E-06	478285.1	3746632.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004513	0	0.11280E-06	478285.1	3746624.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004514	0	0.11280E-06	478285.1	3746615.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004515	0	0.11280E-06	478285.2	3746607.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004516	0	0.11280E-06	478285.2	3746598.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004517	0	0.11280E-06	478285.2	3746590.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004518	0	0.11280E-06	478285.3	3746581.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004519	0	0.11280E-06	478285.3	3746573.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004520	0	0.11280E-06	478285.3	3746564.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004521	0	0.11280E-06	478285.3	3746556.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004522	0	0.11280E-06	478285.4	3746547.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004523	0	0.11280E-06	478285.4	3746539.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004524	0	0.11280E-06	478285.4	3746530.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004525	0	0.11280E-06	478285.5	3746522.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004526	0	0.11280E-06	478285.5	3746513.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004527	0	0.11280E-06	478285.5	3746505.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004528	0	0.11280E-06	478285.6	3746496.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004529	0	0.11280E-06	478285.6	3746488.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004530	0	0.11280E-06	478285.6	3746479.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004531	0	0.11280E-06	478285.7	3746471.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004532	0	0.11280E-06	478285.7	3746462.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004533	0	0.11280E-06	478285.7	3746454.4	447.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004534	0	0.11280E-06	478285.8	3746445.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004535	0	0.11280E-06	478285.8	3746437.4	446.8	0.00	3.95	1.86	YES	HROFDY
L0004536	0	0.11280E-06	478285.8	3746428.9	446.7	0.00	3.95	1.86	YES	HROFDY
L0004537	0	0.11280E-06	478285.8	3746420.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004538	0	0.11280E-06	478285.9	3746411.9	446.5	0.00	3.95	1.86	YES	HROFDY
L0004539	0	0.11280E-06	478285.9	3746403.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004540	0	0.11280E-06	478285.9	3746394.9	446.5	0.00	3.95	1.86	YES	HROFDY
L0004541	0	0.11280E-06	478286.0	3746386.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004542	0	0.11280E-06	478286.0	3746377.9	446.5	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0004543	0	0.11280E-06	478286.0	3746369.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004544	0	0.11280E-06	478286.1	3746360.9	446.5	0.00	3.95	1.86	YES	HROFDY
L0004545	0	0.11280E-06	478284.4	3746354.1	446.5	0.00	3.95	1.86	YES	HROFDY
L0004546	0	0.11280E-06	478275.9	3746354.1	446.8	0.00	3.95	1.86	YES	HROFDY
L0004547	0	0.11280E-06	478267.4	3746354.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004548	0	0.11280E-06	478258.9	3746354.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004549	0	0.11280E-06	478250.4	3746354.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0004550	0	0.11280E-06	478241.9	3746354.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0004551	0	0.11280E-06	478233.4	3746354.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004552	0	0.11280E-06	478224.9	3746354.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004553	0	0.11280E-06	478216.4	3746354.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004554	0	0.11280E-06	478207.9	3746354.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004555	0	0.11280E-06	478199.4	3746354.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004556	0	0.11280E-06	478190.9	3746354.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004557	0	0.11280E-06	478182.4	3746354.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004558	0	0.11280E-06	478173.9	3746354.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004559	0	0.11280E-06	478165.4	3746354.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0004560	0	0.11280E-06	478156.9	3746354.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0004561	0	0.11280E-06	478148.4	3746354.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0004562	0	0.11280E-06	478139.9	3746354.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0004563	0	0.11280E-06	478131.4	3746354.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004564	0	0.11280E-06	478122.9	3746354.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004565	0	0.11280E-06	478114.4	3746354.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004566	0	0.11280E-06	478105.9	3746355.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0004567	0	0.11280E-06	478097.4	3746355.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0004568	0	0.11280E-06	478088.9	3746355.1	447.0	0.00	3.95	1.86	YES	HROFDY
L0004569	0	0.11280E-06	478080.4	3746355.1	447.0	0.00	3.95	1.86	YES	HROFDY
L0004570	0	0.11280E-06	478071.9	3746355.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004571	0	0.11280E-06	478063.4	3746355.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004572	0	0.11280E-06	478054.9	3746355.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004573	0	0.11280E-06	478046.4	3746355.3	447.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004574	0	0.11280E-06	478037.9	3746355.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0004575	0	0.11280E-06	478029.4	3746355.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004576	0	0.11280E-06	478020.9	3746355.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004577	0	0.11280E-06	478012.4	3746355.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004578	0	0.11280E-06	478003.9	3746355.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004579	0	0.11280E-06	477995.4	3746355.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004580	0	0.11280E-06	477986.9	3746355.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004581	0	0.11280E-06	477978.4	3746355.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004582	0	0.11280E-06	477969.9	3746355.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0004583	0	0.11280E-06	477961.4	3746355.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0004584	0	0.11280E-06	477952.9	3746355.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0004585	0	0.11280E-06	477944.4	3746355.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0004586	0	0.11280E-06	477935.9	3746355.8	447.1	0.00	3.95	1.86	YES	HROFDY
L0004587	0	0.11280E-06	477927.4	3746355.9	447.4	0.00	3.95	1.86	YES	HROFDY
L0004588	0	0.11280E-06	477918.9	3746355.9	447.7	0.00	3.95	1.86	YES	HROFDY
L0004589	0	0.11280E-06	477910.4	3746356.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0004590	0	0.11280E-06	477901.9	3746356.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0004591	0	0.11280E-06	477893.4	3746356.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0004592	0	0.11280E-06	477884.9	3746356.1	448.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0004593	0	0.11280E-06	477876.4	3746356.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0004594	0	0.11280E-06	477867.9	3746356.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0004595	0	0.11280E-06	477859.4	3746356.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0004596	0	0.11280E-06	477850.9	3746356.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0004597	0	0.11280E-06	477842.4	3746356.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0004598	0	0.11280E-06	477833.9	3746356.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0004599	0	0.11280E-06	477825.4	3746356.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0004600	0	0.11280E-06	477816.9	3746356.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0004601	0	0.11280E-06	477808.4	3746356.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0004602	0	0.11280E-06	477799.9	3746356.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0004603	0	0.11280E-06	477791.4	3746356.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0004604	0	0.11280E-06	477782.9	3746356.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0004605	0	0.11280E-06	477774.4	3746356.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0004606	0	0.11280E-06	477765.9	3746356.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0004607	0	0.11280E-06	477757.4	3746356.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0004608	0	0.11280E-06	477748.9	3746356.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0004609	0	0.11280E-06	477740.4	3746356.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0004610	0	0.11280E-06	477731.9	3746356.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0004611	0	0.11280E-06	477723.4	3746356.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0004612	0	0.11280E-06	477714.9	3746357.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0004613	0	0.11280E-06	477706.4	3746357.0	448.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004614	0	0.11280E-06	477697.9	3746357.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0004615	0	0.11280E-06	477689.4	3746357.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0004616	0	0.11280E-06	477680.9	3746357.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0004617	0	0.11280E-06	477672.4	3746357.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0004618	0	0.11280E-06	477663.9	3746357.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0004619	0	0.11280E-06	477655.4	3746357.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0004620	0	0.11280E-06	477646.9	3746357.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0004621	0	0.11280E-06	477638.4	3746357.3	448.1	0.00	3.95	1.86	YES	HROFDY
L0004622	0	0.11280E-06	477629.9	3746357.4	448.3	0.00	3.95	1.86	YES	HROFDY
L0004623	0	0.11280E-06	477621.4	3746357.5	448.6	0.00	3.95	1.86	YES	HROFDY
L0004624	0	0.11280E-06	477612.9	3746357.7	448.9	0.00	3.95	1.86	YES	HROFDY
L0004625	0	0.11280E-06	477604.4	3746357.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0004626	0	0.11280E-06	477595.9	3746358.1	449.0	0.00	3.95	1.86	YES	HROFDY
L0004627	0	0.11280E-06	477587.4	3746358.3	449.0	0.00	3.95	1.86	YES	HROFDY
L0004628	0	0.11280E-06	477578.9	3746358.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0004629	0	0.11280E-06	477570.4	3746358.6	449.0	0.00	3.95	1.86	YES	HROFDY
L0004630	0	0.11280E-06	477561.9	3746358.8	449.0	0.00	3.95	1.86	YES	HROFDY
L0004631	0	0.11280E-06	477553.4	3746359.0	449.0	0.00	3.95	1.86	YES	HROFDY
L0004632	0	0.11280E-06	477544.9	3746359.2	449.0	0.00	3.95	1.86	YES	HROFDY
L0004633	0	0.11280E-06	477536.4	3746359.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0004634	0	0.11280E-06	477527.9	3746359.6	449.0	0.00	3.95	1.86	YES	HROFDY
L0004635	0	0.11280E-06	477519.4	3746359.8	449.0	0.00	3.95	1.86	YES	HROFDY
L0004636	0	0.11280E-06	477510.9	3746360.0	449.0	0.00	3.95	1.86	YES	HROFDY
L0004637	0	0.11280E-06	477502.4	3746360.1	449.0	0.00	3.95	1.86	YES	HROFDY
L0004638	0	0.11280E-06	477493.9	3746360.3	449.0	0.00	3.95	1.86	YES	HROFDY
L0004639	0	0.11280E-06	477485.4	3746360.5	449.2	0.00	3.95	1.86	YES	HROFDY
L0004640	0	0.11280E-06	477476.9	3746360.8	449.4	0.00	3.95	1.86	YES	HROFDY
L0004641	0	0.11280E-06	477468.8	3746363.3	449.7	0.00	3.95	1.86	YES	HROFDY
L0004642	0	0.11280E-06	477460.7	3746365.9	450.0	0.00	3.95	1.86	YES	HROFDY

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L0004643	0	0.11280E-06	477452.6	3746368.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0004644	0	0.11280E-06	477444.5	3746371.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0004645	0	0.11280E-06	477436.4	3746373.6	450.0	0.00	3.95	1.86	YES	HROFDY
L0004646	0	0.11280E-06	477428.3	3746376.1	450.0	0.00	3.95	1.86	YES	HROFDY
L0004647	0	0.11280E-06	477420.2	3746378.7	450.0	0.00	3.95	1.86	YES	HROFDY
L0004648	0	0.11280E-06	477412.1	3746381.3	450.0	0.00	3.95	1.86	YES	HROFDY
L0004649	0	0.11280E-06	477404.0	3746383.8	450.0	0.00	3.95	1.86	YES	HROFDY
L0004650	0	0.11280E-06	477395.9	3746386.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0004651	0	0.11280E-06	477388.2	3746390.1	450.0	0.00	3.95	1.86	YES	HROFDY
L0004652	0	0.11280E-06	477380.6	3746393.8	450.0	0.00	3.95	1.86	YES	HROFDY
L0004653	0	0.11280E-06	477372.9	3746397.6	450.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004654	0	0.11280E-06	477365.3	3746401.3	450.0	0.00	3.95	1.86	YES	HROFDY
L0004655	0	0.11280E-06	477357.7	3746405.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0004656	0	0.11280E-06	477350.0	3746408.7	450.0	0.00	3.95	1.86	YES	HROFDY
L0004657	0	0.11280E-06	477342.4	3746412.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0004658	0	0.11280E-06	477334.7	3746416.1	450.0	0.00	3.95	1.86	YES	HROFDY
L0004659	0	0.11280E-06	477328.2	3746421.6	450.0	0.00	3.95	1.86	YES	HROFDY
L0004660	0	0.11280E-06	477321.6	3746427.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0004661	0	0.11280E-06	477315.1	3746432.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0004662	0	0.11280E-06	477308.5	3746437.8	450.0	0.00	3.95	1.86	YES	HROFDY
L0004663	0	0.11280E-06	477302.0	3746443.3	450.0	0.00	3.95	1.86	YES	HROFDY
L0004664	0	0.11280E-06	477295.1	3746448.2	450.0	0.00	3.95	1.86	YES	HROFDY
L0004665	0	0.11280E-06	477288.2	3746453.1	450.0	0.00	3.95	1.86	YES	HROFDY
L0004666	0	0.11280E-06	477281.2	3746458.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0004667	0	0.11280E-06	477274.3	3746462.9	450.0	0.00	3.95	1.86	YES	HROFDY
L0004668	0	0.11280E-06	477267.3	3746467.8	450.0	0.00	3.95	1.86	YES	HROFDY
L0004669	0	0.11280E-06	477260.3	3746472.7	450.0	0.00	3.95	1.86	YES	HROFDY
L0004670	0	0.11280E-06	477253.4	3746477.5	450.0	0.00	3.95	1.86	YES	HROFDY
L0004671	0	0.11280E-06	477246.4	3746482.4	450.1	0.00	3.95	1.86	YES	HROFDY
L0004672	0	0.11280E-06	477239.5	3746487.3	450.2	0.00	3.95	1.86	YES	HROFDY
L0004673	0	0.11280E-06	477232.5	3746492.2	450.3	0.00	3.95	1.86	YES	HROFDY
L0004674	0	0.11280E-06	477225.5	3746497.1	450.2	0.00	3.95	1.86	YES	HROFDY
L0004675	0	0.11280E-06	477218.6	3746501.9	450.2	0.00	3.95	1.86	YES	HROFDY
L0004676	0	0.11280E-06	477211.6	3746506.8	450.3	0.00	3.95	1.86	YES	HROFDY
L0004677	0	0.11280E-06	477204.7	3746511.7	450.5	0.00	3.95	1.86	YES	HROFDY
L0004678	0	0.11280E-06	477197.7	3746516.6	450.7	0.00	3.95	1.86	YES	HROFDY
L0004679	0	0.11280E-06	477190.7	3746521.5	451.0	0.00	3.95	1.86	YES	HROFDY
L0004680	0	0.11280E-06	477183.0	3746524.7	451.0	0.00	3.95	1.86	YES	HROFDY
L0004681	0	0.11280E-06	477174.8	3746526.9	451.0	0.00	3.95	1.86	YES	HROFDY
L0004682	0	0.11280E-06	477166.6	3746529.1	451.0	0.00	3.95	1.86	YES	HROFDY
L0004683	0	0.11280E-06	477158.4	3746531.3	451.0	0.00	3.95	1.86	YES	HROFDY
L0004684	0	0.11280E-06	477150.2	3746533.5	451.0	0.00	3.95	1.86	YES	HROFDY
L0004685	0	0.11280E-06	477142.0	3746535.8	451.0	0.00	3.95	1.86	YES	HROFDY
L0004686	0	0.11280E-06	477133.8	3746538.0	451.0	0.00	3.95	1.86	YES	HROFDY
L0004687	0	0.11280E-06	477125.6	3746540.2	451.0	0.00	3.95	1.86	YES	HROFDY
L0004688	0	0.11280E-06	477117.3	3746542.1	451.0	0.00	3.95	1.86	YES	HROFDY
L0004689	0	0.11280E-06	477108.8	3746542.7	451.0	0.00	3.95	1.86	YES	HROFDY
L0004690	0	0.11280E-06	477100.3	3746543.3	451.0	0.00	3.95	1.86	YES	HROFDY
L0004691	0	0.11280E-06	477091.9	3746543.9	451.0	0.00	3.95	1.86	YES	HROFDY
L0004692	0	0.11280E-06	477083.4	3746544.5	451.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
L0004693 0 0.11280E-06 477074.9 3746545.1 451.0 0.00 3.95 1.86 YES HROFDY

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004694	0	0.11280E-06	477066.4	3746545.7	451.1	0.00	3.95	1.86	YES	HROFDY
L0004695	0	0.11280E-06	477058.0	3746546.3	451.3	0.00	3.95	1.86	YES	HROFDY
L0004696	0	0.11280E-06	477049.5	3746546.9	451.4	0.00	3.95	1.86	YES	HROFDY
L0004697	0	0.11280E-06	477041.0	3746547.5	451.6	0.00	3.95	1.86	YES	HROFDY
L0004698	0	0.11280E-06	477032.5	3746547.7	451.7	0.00	3.95	1.86	YES	HROFDY
L0004699	0	0.11280E-06	477024.0	3746547.8	451.8	0.00	3.95	1.86	YES	HROFDY
L0004700	0	0.11280E-06	477015.5	3746548.0	451.9	0.00	3.95	1.86	YES	HROFDY
L0004701	0	0.11280E-06	477007.0	3746548.1	452.0	0.00	3.95	1.86	YES	HROFDY
L0004702	0	0.11280E-06	476998.5	3746548.3	452.0	0.00	3.95	1.86	YES	HROFDY
L0004703	0	0.11280E-06	476990.0	3746548.4	452.0	0.00	3.95	1.86	YES	HROFDY
L0004704	0	0.11280E-06	476981.5	3746548.6	452.0	0.00	3.95	1.86	YES	HROFDY
L0004705	0	0.11280E-06	476973.0	3746548.7	452.0	0.00	3.95	1.86	YES	HROFDY
L0004706	0	0.11280E-06	476964.5	3746548.9	452.0	0.00	3.95	1.86	YES	HROFDY
L0004707	0	0.11280E-06	476956.0	3746549.1	452.0	0.00	3.95	1.86	YES	HROFDY
L0004708	0	0.11280E-06	476947.5	3746549.2	452.0	0.00	3.95	1.86	YES	HROFDY
L0004709	0	0.11280E-06	476939.0	3746549.4	452.0	0.00	3.95	1.86	YES	HROFDY
L0004710	0	0.11280E-06	476930.5	3746549.5	452.0	0.00	3.95	1.86	YES	HROFDY
L0004711	0	0.11280E-06	476922.0	3746549.8	452.0	0.00	3.95	1.86	YES	HROFDY
L0004712	0	0.11280E-06	476913.5	3746550.0	452.1	0.00	3.95	1.86	YES	HROFDY
L0004713	0	0.11280E-06	476905.0	3746550.2	452.3	0.00	3.95	1.86	YES	HROFDY
L0004714	0	0.11280E-06	476896.5	3746550.4	452.4	0.00	3.95	1.86	YES	HROFDY
L0004715	0	0.11280E-06	476888.0	3746550.6	452.6	0.00	3.95	1.86	YES	HROFDY
L0004716	0	0.11280E-06	476879.5	3746550.8	452.7	0.00	3.95	1.86	YES	HROFDY
L0004717	0	0.11280E-06	476871.0	3746551.0	452.8	0.00	3.95	1.86	YES	HROFDY
L0004718	0	0.11280E-06	476862.5	3746551.2	453.0	0.00	3.95	1.86	YES	HROFDY
L0004719	0	0.11280E-06	476854.0	3746551.5	453.0	0.00	3.95	1.86	YES	HROFDY
L0004720	0	0.11280E-06	476845.5	3746551.7	453.0	0.00	3.95	1.86	YES	HROFDY
L0004721	0	0.11280E-06	476837.0	3746551.9	453.0	0.00	3.95	1.86	YES	HROFDY
L0004722	0	0.11280E-06	476828.5	3746552.1	453.0	0.00	3.95	1.86	YES	HROFDY
L0004723	0	0.11280E-06	476820.0	3746552.3	453.0	0.00	3.95	1.86	YES	HROFDY
L0004724	0	0.11280E-06	476811.6	3746552.5	453.0	0.00	3.95	1.86	YES	HROFDY
L0004725	0	0.11280E-06	476803.1	3746552.7	453.0	0.00	3.95	1.86	YES	HROFDY
L0004726	0	0.11280E-06	476794.6	3746552.9	453.0	0.00	3.95	1.86	YES	HROFDY
L0004727	0	0.11280E-06	476786.1	3746553.1	454.0	0.00	3.95	1.86	YES	HROFDY
L0004728	0	0.11280E-06	476777.6	3746552.3	454.0	0.00	3.95	1.86	YES	HROFDY
L0004729	0	0.11280E-06	476769.1	3746551.4	454.0	0.00	3.95	1.86	YES	HROFDY
L0004730	0	0.11280E-06	476760.7	3746550.6	454.0	0.00	3.95	1.86	YES	HROFDY
L0004731	0	0.11280E-06	476752.2	3746549.8	454.0	0.00	3.95	1.86	YES	HROFDY
L0004732	0	0.11280E-06	476743.7	3746549.3	454.0	0.00	3.95	1.86	YES	HROFDY
L0004733	0	0.11280E-06	476735.2	3746549.2	454.2	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004734	0	0.11280E-06	476726.7	3746549.0	454.4	0.00	3.95	1.86	YES	HROFDY
L0004735	0	0.11280E-06	476718.2	3746548.9	454.7	0.00	3.95	1.86	YES	HROFDY
L0004736	0	0.11280E-06	476709.7	3746548.8	455.0	0.00	3.95	1.86	YES	HROFDY
L0004737	0	0.11280E-06	476701.2	3746548.6	455.0	0.00	3.95	1.86	YES	HROFDY
L0004738	0	0.11280E-06	476692.7	3746548.5	455.0	0.00	3.95	1.86	YES	HROFDY
L0004739	0	0.11280E-06	476684.2	3746548.3	455.0	0.00	3.95	1.86	YES	HROFDY
L0004740	0	0.11280E-06	476675.7	3746548.2	455.0	0.00	3.95	1.86	YES	HROFDY
L0004741	0	0.11280E-06	476667.2	3746548.0	455.0	0.00	3.95	1.86	YES	HROFDY
L0004742	0	0.11280E-06	476658.7	3746547.9	455.0	0.00	3.95	1.86	YES	HROFDY
L0004743	0	0.11280E-06	476650.2	3746547.7	455.0	0.00	3.95	1.86	YES	HROFDY
L0004744	0	0.11280E-06	476641.8	3746547.6	455.2	0.00	3.95	1.86	YES	HROFDY
L0004745	0	0.11280E-06	476633.9	3746550.3	455.3	0.00	3.95	1.86	YES	HROFDY
L0004746	0	0.11280E-06	476626.3	3746554.1	455.3	0.00	3.95	1.86	YES	HROFDY
L0004747	0	0.11280E-06	476618.7	3746557.9	455.3	0.00	3.95	1.86	YES	HROFDY
L0004748	0	0.11280E-06	476611.1	3746561.7	455.4	0.00	3.95	1.86	YES	HROFDY
L0004749	0	0.11280E-06	476603.5	3746565.5	455.6	0.00	3.95	1.86	YES	HROFDY
L0004750	0	0.11280E-06	476596.1	3746569.7	455.8	0.00	3.95	1.86	YES	HROFDY
L0004751	0	0.11280E-06	476589.1	3746574.5	456.0	0.00	3.95	1.86	YES	HROFDY
L0004752	0	0.11280E-06	476582.1	3746579.4	456.0	0.00	3.95	1.86	YES	HROFDY
L0004753	0	0.11280E-06	476575.2	3746584.2	456.0	0.00	3.95	1.86	YES	HROFDY
L0004754	0	0.11280E-06	476568.2	3746589.1	456.0	0.00	3.95	1.86	YES	HROFDY
L0004755	0	0.11280E-06	476561.2	3746593.9	456.0	0.00	3.95	1.86	YES	HROFDY
L0004756	0	0.11280E-06	476554.4	3746599.0	456.0	0.00	3.95	1.86	YES	HROFDY
L0004757	0	0.11280E-06	476548.2	3746604.8	456.0	0.00	3.95	1.86	YES	HROFDY
L0004758	0	0.11280E-06	476542.1	3746610.7	456.0	0.00	3.95	1.86	YES	HROFDY
L0004759	0	0.11280E-06	476535.9	3746616.5	456.0	0.00	3.95	1.86	YES	HROFDY
L0004760	0	0.11280E-06	476529.7	3746622.4	456.0	0.00	3.95	1.86	YES	HROFDY
L0004761	0	0.11280E-06	476523.6	3746628.2	456.0	0.00	3.95	1.86	YES	HROFDY
L0004762	0	0.11280E-06	476517.7	3746634.3	456.0	0.00	3.95	1.86	YES	HROFDY
L0004763	0	0.11280E-06	476514.0	3746642.0	456.0	0.00	3.95	1.86	YES	HROFDY
L0004764	0	0.11280E-06	476510.3	3746649.6	456.0	0.00	3.95	1.86	YES	HROFDY
L0004765	0	0.11280E-06	476506.7	3746657.3	456.0	0.00	3.95	1.86	YES	HROFDY
L0004766	0	0.11280E-06	476503.0	3746665.0	456.0	0.00	3.95	1.86	YES	HROFDY
L0004767	0	0.11280E-06	476499.3	3746672.6	456.0	0.00	3.95	1.86	YES	HROFDY
L0004768	0	0.11280E-06	476495.6	3746680.3	456.1	0.00	3.95	1.86	YES	HROFDY
L0004769	0	0.11280E-06	476492.2	3746688.1	456.3	0.00	3.95	1.86	YES	HROFDY
L0004770	0	0.11280E-06	476488.7	3746695.8	456.4	0.00	3.95	1.86	YES	HROFDY
L0004771	0	0.11280E-06	476485.3	3746703.6	456.5	0.00	3.95	1.86	YES	HROFDY
L0004772	0	0.11280E-06	476481.8	3746711.4	456.6	0.00	3.95	1.86	YES	HROFDY
L0004773	0	0.11280E-06	476478.4	3746719.1	456.7	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004774	0	0.11280E-06	476474.9	3746726.9	456.5	0.00	3.95	1.86	YES	HROFDY
L0004775	0	0.11280E-06	476471.5	3746734.7	456.4	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0004776	0	0.11280E-06	476468.0	3746742.4	456.2	0.00	3.95	1.86	YES	HROFDY
L0004777	0	0.11280E-06	476465.1	3746750.4	456.2	0.00	3.95	1.86	YES	HROFDY
L0004778	0	0.11280E-06	476463.0	3746758.6	456.2	0.00	3.95	1.86	YES	HROFDY
L0004779	0	0.11280E-06	476461.0	3746766.9	456.3	0.00	3.95	1.86	YES	HROFDY
L0004780	0	0.11280E-06	476458.9	3746775.1	456.4	0.00	3.95	1.86	YES	HROFDY
L0004781	0	0.11280E-06	476456.8	3746783.4	456.4	0.00	3.95	1.86	YES	HROFDY
L0004782	0	0.11280E-06	476454.8	3746791.6	456.5	0.00	3.95	1.86	YES	HROFDY
L0004783	0	0.11280E-06	476452.7	3746799.9	456.6	0.00	3.95	1.86	YES	HROFDY
L0004784	0	0.11280E-06	476450.7	3746808.1	456.6	0.00	3.95	1.86	YES	HROFDY
L0004785	0	0.11280E-06	476448.6	3746816.3	456.5	0.00	3.95	1.86	YES	HROFDY
L0004786	0	0.11280E-06	476446.5	3746824.6	456.3	0.00	3.95	1.86	YES	HROFDY
L0004787	0	0.11280E-06	476444.5	3746832.8	456.1	0.00	3.95	1.86	YES	HROFDY
L0004788	0	0.11280E-06	476442.4	3746841.1	456.0	0.00	3.95	1.86	YES	HROFDY
L0004789	0	0.11280E-06	476438.2	3746848.2	456.1	0.00	3.95	1.86	YES	HROFDY
L0004790	0	0.11280E-06	476432.7	3746854.7	456.2	0.00	3.95	1.86	YES	HROFDY
L0004791	0	0.11280E-06	476427.2	3746861.1	456.4	0.00	3.95	1.86	YES	HROFDY
L0004792	0	0.11280E-06	476421.6	3746867.6	456.6	0.00	3.95	1.86	YES	HROFDY
L0004793	0	0.11280E-06	476416.1	3746874.1	456.6	0.00	3.95	1.86	YES	HROFDY
L0004794	0	0.11280E-06	476410.6	3746880.5	456.5	0.00	3.95	1.86	YES	HROFDY
L0004795	0	0.11280E-06	476405.0	3746887.0	456.4	0.00	3.95	1.86	YES	HROFDY
L0004796	0	0.11280E-06	476399.5	3746893.4	456.4	0.00	3.95	1.86	YES	HROFDY
L0004797	0	0.11280E-06	476393.5	3746899.4	456.5	0.00	3.95	1.86	YES	HROFDY
L0004798	0	0.11280E-06	476387.0	3746904.8	456.5	0.00	3.95	1.86	YES	HROFDY
L0004799	0	0.11280E-06	476380.5	3746910.3	456.5	0.00	3.95	1.86	YES	HROFDY
L0004800	0	0.11280E-06	476374.0	3746915.8	456.5	0.00	3.95	1.86	YES	HROFDY
L0004801	0	0.11280E-06	476367.5	3746921.3	456.5	0.00	3.95	1.86	YES	HROFDY
L0004802	0	0.11280E-06	476360.9	3746926.5	456.6	0.00	3.95	1.86	YES	HROFDY
L0004803	0	0.11280E-06	476352.7	3746928.8	456.8	0.00	3.95	1.86	YES	HROFDY
L0004804	0	0.11280E-06	476344.5	3746931.0	456.9	0.00	3.95	1.86	YES	HROFDY
L0004805	0	0.11280E-06	476336.3	3746933.3	456.9	0.00	3.95	1.86	YES	HROFDY
L0004806	0	0.11280E-06	476328.1	3746935.5	456.9	0.00	3.95	1.86	YES	HROFDY
L0004807	0	0.11280E-06	476319.9	3746937.7	457.0	0.00	3.95	1.86	YES	HROFDY
L0004808	0	0.11280E-06	476311.4	3746938.7	457.0	0.00	3.95	1.86	YES	HROFDY
L0004809	0	0.11280E-06	476303.0	3746939.8	457.0	0.00	3.95	1.86	YES	HROFDY
L0004810	0	0.11280E-06	476294.6	3746940.8	457.0	0.00	3.95	1.86	YES	HROFDY
L0004811	0	0.11280E-06	476286.1	3746941.9	457.0	0.00	3.95	1.86	YES	HROFDY
L0004812	0	0.11280E-06	476277.7	3746942.9	457.0	0.00	3.95	1.86	YES	HROFDY
L0004813	0	0.11280E-06	476269.3	3746944.0	457.0	0.00	3.95	1.86	YES	HROFDY

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004814	0	0.11280E-06	476260.8	3746945.0	457.0	0.00	3.95	1.86	YES	HROFDY
L0004815	0	0.11280E-06	476252.3	3746945.2	457.0	0.00	3.95	1.86	YES	HROFDY
L0004816	0	0.11280E-06	476243.8	3746945.3	457.0	0.00	3.95	1.86	YES	HROFDY
L0004817	0	0.11280E-06	476235.3	3746945.5	457.0	0.00	3.95	1.86	YES	HROFDY
L0004818	0	0.11280E-06	476226.8	3746945.6	457.0	0.00	3.95	1.86	YES	HROFDY
L0004819	0	0.11280E-06	476218.3	3746945.8	457.1	0.00	3.95	1.86	YES	HROFDY
L0004820	0	0.11280E-06	476209.8	3746945.9	457.2	0.00	3.95	1.86	YES	HROFDY
L0004821	0	0.11280E-06	476201.3	3746946.0	457.3	0.00	3.95	1.86	YES	HROFDY
L0004822	0	0.11280E-06	476192.8	3746946.2	457.5	0.00	3.95	1.86	YES	HROFDY
L0004823	0	0.11280E-06	476184.3	3746946.3	457.7	0.00	3.95	1.86	YES	HROFDY
L0004824	0	0.11280E-06	476175.8	3746946.4	457.9	0.00	3.95	1.86	YES	HROFDY
L0004825	0	0.11280E-06	476167.3	3746946.6	458.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0004826	0	0.11280E-06	476158.8	3746946.7	458.0	0.00	3.95	1.86	YES	HROFDY
L0004827	0	0.11280E-06	476150.3	3746946.9	458.0	0.00	3.95	1.86	YES	HROFDY
L0004828	0	0.11280E-06	476141.8	3746947.0	458.0	0.00	3.95	1.86	YES	HROFDY
L0004829	0	0.11280E-06	476133.3	3746947.1	458.2	0.00	3.95	1.86	YES	HROFDY
L0004830	0	0.11280E-06	476124.8	3746947.3	458.5	0.00	3.95	1.86	YES	HROFDY
L0004831	0	0.11280E-06	476116.3	3746947.4	458.8	0.00	3.95	1.86	YES	HROFDY
L0004832	0	0.11280E-06	476107.8	3746947.5	459.0	0.00	3.95	1.86	YES	HROFDY
L0004833	0	0.11280E-06	476099.3	3746947.7	459.0	0.00	3.95	1.86	YES	HROFDY
L0004834	0	0.11280E-06	476090.8	3746947.8	459.0	0.00	3.95	1.86	YES	HROFDY
L0004835	0	0.11280E-06	476082.3	3746947.9	459.0	0.00	3.95	1.86	YES	HROFDY
L0004836	0	0.11280E-06	476073.8	3746948.1	459.2	0.00	3.95	1.86	YES	HROFDY
L0004837	0	0.11280E-06	476065.3	3746948.2	459.5	0.00	3.95	1.86	YES	HROFDY
L0004838	0	0.11280E-06	476056.8	3746948.4	459.8	0.00	3.95	1.86	YES	HROFDY
L0004839	0	0.11280E-06	476048.3	3746948.5	460.0	0.00	3.95	1.86	YES	HROFDY
L0004840	0	0.11280E-06	476039.8	3746948.6	460.0	0.00	3.95	1.86	YES	HROFDY
L0004841	0	0.11280E-06	476031.3	3746948.8	460.0	0.00	3.95	1.86	YES	HROFDY
L0004842	0	0.10680E-06	478284.5	3746785.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004843	0	0.10680E-06	478284.5	3746777.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004844	0	0.10680E-06	478284.6	3746768.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004845	0	0.10680E-06	478284.6	3746760.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004846	0	0.10680E-06	478284.6	3746751.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004847	0	0.10680E-06	478284.7	3746743.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004848	0	0.10680E-06	478284.7	3746734.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004849	0	0.10680E-06	478284.7	3746726.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004850	0	0.10680E-06	478284.8	3746717.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004851	0	0.10680E-06	478284.8	3746709.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004852	0	0.10680E-06	478284.8	3746700.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004853	0	0.10680E-06	478284.9	3746692.4	447.0	0.00	3.95	1.86	YES	HROFDY

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004854	0	0.10680E-06	478284.9	3746683.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004855	0	0.10680E-06	478284.9	3746675.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004856	0	0.10680E-06	478284.9	3746666.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004857	0	0.10680E-06	478285.0	3746658.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004858	0	0.10680E-06	478285.0	3746649.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004859	0	0.10680E-06	478285.0	3746641.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004860	0	0.10680E-06	478285.1	3746632.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004861	0	0.10680E-06	478285.1	3746624.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004862	0	0.10680E-06	478285.1	3746615.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004863	0	0.10680E-06	478285.2	3746607.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004864	0	0.10680E-06	478285.2	3746598.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004865	0	0.10680E-06	478285.2	3746590.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004866	0	0.10680E-06	478285.3	3746581.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004867	0	0.10680E-06	478285.3	3746573.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004868	0	0.10680E-06	478285.3	3746564.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004869	0	0.10680E-06	478285.3	3746556.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004870	0	0.10680E-06	478285.4	3746547.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004871	0	0.10680E-06	478285.4	3746539.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004872	0	0.10680E-06	478285.4	3746530.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004873	0	0.10680E-06	478285.5	3746522.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004874	0	0.10680E-06	478285.5	3746513.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004875	0	0.10680E-06	478285.5	3746505.4	447.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0004876	0	0.10680E-06	478285.6	3746496.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004877	0	0.10680E-06	478285.6	3746488.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004878	0	0.10680E-06	478285.6	3746479.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004879	0	0.10680E-06	478285.7	3746471.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004880	0	0.10680E-06	478285.7	3746462.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004881	0	0.10680E-06	478285.7	3746454.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004882	0	0.10680E-06	478285.8	3746445.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004883	0	0.10680E-06	478285.8	3746437.4	446.8	0.00	3.95	1.86	YES	HROFDY
L0004884	0	0.10680E-06	478285.8	3746428.9	446.7	0.00	3.95	1.86	YES	HROFDY
L0004885	0	0.10680E-06	478285.8	3746420.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004886	0	0.10680E-06	478285.9	3746411.9	446.5	0.00	3.95	1.86	YES	HROFDY
L0004887	0	0.10680E-06	478285.9	3746403.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004888	0	0.10680E-06	478285.9	3746394.9	446.5	0.00	3.95	1.86	YES	HROFDY
L0004889	0	0.10680E-06	478286.0	3746386.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004890	0	0.10680E-06	478286.0	3746377.9	446.5	0.00	3.95	1.86	YES	HROFDY
L0004891	0	0.10680E-06	478286.0	3746369.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004892	0	0.10680E-06	478286.1	3746360.9	446.5	0.00	3.95	1.86	YES	HROFDY
L0004893	0	0.10680E-06	478284.4	3746354.1	446.5	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004894	0	0.10680E-06	478275.9	3746354.1	446.8	0.00	3.95	1.86	YES	HROFDY
L0004895	0	0.10680E-06	478267.4	3746354.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004896	0	0.10680E-06	478258.9	3746354.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004897	0	0.10680E-06	478250.4	3746354.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0004898	0	0.10680E-06	478241.9	3746354.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0004899	0	0.10680E-06	478233.4	3746354.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004900	0	0.10680E-06	478224.9	3746354.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004901	0	0.10680E-06	478216.4	3746354.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004902	0	0.10680E-06	478207.9	3746354.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004903	0	0.10680E-06	478199.4	3746354.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004904	0	0.10680E-06	478190.9	3746354.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004905	0	0.10680E-06	478182.4	3746354.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004906	0	0.10680E-06	478173.9	3746354.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004907	0	0.10680E-06	478165.4	3746354.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0004908	0	0.10680E-06	478156.9	3746354.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0004909	0	0.10680E-06	478148.4	3746354.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0004910	0	0.10680E-06	478139.9	3746354.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0004911	0	0.10680E-06	478131.4	3746354.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004912	0	0.10680E-06	478122.9	3746354.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004913	0	0.10680E-06	478114.4	3746354.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004914	0	0.10680E-06	478105.9	3746355.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0004915	0	0.10680E-06	478097.4	3746355.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0004916	0	0.10680E-06	478088.9	3746355.1	447.0	0.00	3.95	1.86	YES	HROFDY
L0004917	0	0.10680E-06	478080.4	3746355.1	447.0	0.00	3.95	1.86	YES	HROFDY
L0004918	0	0.10680E-06	478071.9	3746355.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004919	0	0.10680E-06	478063.4	3746355.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004920	0	0.10680E-06	478054.9	3746355.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004921	0	0.10680E-06	478046.4	3746355.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0004922	0	0.10680E-06	478037.9	3746355.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0004923	0	0.10680E-06	478029.4	3746355.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004924	0	0.10680E-06	478020.9	3746355.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004925	0	0.10680E-06	478012.4	3746355.5	447.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                Residential
 L0004926         0   0.10680E-06  478003.9 3746355.5   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004927         0   0.10680E-06  477995.4 3746355.5   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004928         0   0.10680E-06  477986.9 3746355.6   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004929         0   0.10680E-06  477978.4 3746355.6   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004930         0   0.10680E-06  477969.9 3746355.7   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004931         0   0.10680E-06  477961.4 3746355.7   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004932         0   0.10680E-06  477952.9 3746355.8   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004933         0   0.10680E-06  477944.4 3746355.8   447.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                        ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   13:11:49

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - -

 L0004934         0   0.10680E-06  477935.9 3746355.8   447.1     0.00     3.95     1.86     YES   HROFDY
 L0004935         0   0.10680E-06  477927.4 3746355.9   447.4     0.00     3.95     1.86     YES   HROFDY
 L0004936         0   0.10680E-06  477918.9 3746355.9   447.7     0.00     3.95     1.86     YES   HROFDY
 L0004937         0   0.10680E-06  477910.4 3746356.0   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004938         0   0.10680E-06  477901.9 3746356.0   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004939         0   0.10680E-06  477893.4 3746356.1   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004940         0   0.10680E-06  477884.9 3746356.1   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004941         0   0.10680E-06  477876.4 3746356.1   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004942         0   0.10680E-06  477867.9 3746356.2   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004943         0   0.10680E-06  477859.4 3746356.2   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004944         0   0.10680E-06  477850.9 3746356.3   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004945         0   0.10680E-06  477842.4 3746356.3   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004946         0   0.10680E-06  477833.9 3746356.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004947         0   0.10680E-06  477825.4 3746356.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004948         0   0.10680E-06  477816.9 3746356.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004949         0   0.10680E-06  477808.4 3746356.5   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004950         0   0.10680E-06  477799.9 3746356.5   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004951         0   0.10680E-06  477791.4 3746356.6   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004952         0   0.10680E-06  477782.9 3746356.6   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004953         0   0.10680E-06  477774.4 3746356.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004954         0   0.10680E-06  477765.9 3746356.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004955         0   0.10680E-06  477757.4 3746356.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004956         0   0.10680E-06  477748.9 3746356.8   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004957         0   0.10680E-06  477740.4 3746356.8   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004958         0   0.10680E-06  477731.9 3746356.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004959         0   0.10680E-06  477723.4 3746356.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004960         0   0.10680E-06  477714.9 3746357.0   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004961         0   0.10680E-06  477706.4 3746357.0   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004962         0   0.10680E-06  477697.9 3746357.0   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004963         0   0.10680E-06  477689.4 3746357.1   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004964         0   0.10680E-06  477680.9 3746357.1   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004965         0   0.10680E-06  477672.4 3746357.2   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004966         0   0.10680E-06  477663.9 3746357.2   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004967         0   0.10680E-06  477655.4 3746357.3   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004968         0   0.10680E-06  477646.9 3746357.3   448.0     0.00     3.95     1.86     YES   HROFDY
 L0004969         0   0.10680E-06  477638.4 3746357.3   448.1     0.00     3.95     1.86     YES   HROFDY
 L0004970         0   0.10680E-06  477629.9 3746357.4   448.3     0.00     3.95     1.86     YES   HROFDY
 L0004971         0   0.10680E-06  477621.4 3746357.5   448.6     0.00     3.95     1.86     YES   HROFDY
 L0004972         0   0.10680E-06  477612.9 3746357.7   448.9     0.00     3.95     1.86     YES   HROFDY
 L0004973         0   0.10680E-06  477604.4 3746357.9   449.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                        ***
    06/30/16
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004974	0	0.10680E-06	477595.9	3746358.1	449.0	0.00	3.95	1.86	YES	HROFDY
L0004975	0	0.10680E-06	477587.4	3746358.3	449.0	0.00	3.95	1.86	YES	HROFDY
L0004976	0	0.10680E-06	477578.9	3746358.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0004977	0	0.10680E-06	477570.4	3746358.6	449.0	0.00	3.95	1.86	YES	HROFDY
L0004978	0	0.10680E-06	477561.9	3746358.8	449.0	0.00	3.95	1.86	YES	HROFDY
L0004979	0	0.10680E-06	477553.4	3746359.0	449.0	0.00	3.95	1.86	YES	HROFDY
L0004980	0	0.10680E-06	477544.9	3746359.2	449.0	0.00	3.95	1.86	YES	HROFDY
L0004981	0	0.10680E-06	477536.4	3746359.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0004982	0	0.10680E-06	477527.9	3746359.6	449.0	0.00	3.95	1.86	YES	HROFDY
L0004983	0	0.10680E-06	477519.4	3746359.8	449.0	0.00	3.95	1.86	YES	HROFDY
L0004984	0	0.10680E-06	477510.9	3746360.0	449.0	0.00	3.95	1.86	YES	HROFDY
L0004985	0	0.10680E-06	477502.4	3746360.1	449.0	0.00	3.95	1.86	YES	HROFDY
L0004986	0	0.10680E-06	477493.9	3746360.3	449.0	0.00	3.95	1.86	YES	HROFDY
L0004987	0	0.10680E-06	477485.4	3746360.5	449.2	0.00	3.95	1.86	YES	HROFDY
L0004988	0	0.10680E-06	477476.9	3746360.8	449.4	0.00	3.95	1.86	YES	HROFDY
L0004989	0	0.10680E-06	477468.8	3746363.3	449.7	0.00	3.95	1.86	YES	HROFDY
L0004990	0	0.10680E-06	477460.7	3746365.9	450.0	0.00	3.95	1.86	YES	HROFDY
L0004991	0	0.10680E-06	477452.6	3746368.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0004992	0	0.10680E-06	477444.5	3746371.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0004993	0	0.10680E-06	477436.4	3746373.6	450.0	0.00	3.95	1.86	YES	HROFDY
L0004994	0	0.10680E-06	477428.3	3746376.1	450.0	0.00	3.95	1.86	YES	HROFDY
L0004995	0	0.10680E-06	477420.2	3746378.7	450.0	0.00	3.95	1.86	YES	HROFDY
L0004996	0	0.10680E-06	477412.1	3746381.3	450.0	0.00	3.95	1.86	YES	HROFDY
L0004997	0	0.10680E-06	477404.0	3746383.8	450.0	0.00	3.95	1.86	YES	HROFDY
L0004998	0	0.10680E-06	477395.9	3746386.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0004999	0	0.10680E-06	477388.2	3746390.1	450.0	0.00	3.95	1.86	YES	HROFDY
L0005000	0	0.10680E-06	477380.6	3746393.8	450.0	0.00	3.95	1.86	YES	HROFDY
L0005001	0	0.10680E-06	477372.9	3746397.6	450.0	0.00	3.95	1.86	YES	HROFDY
L0005002	0	0.10680E-06	477365.3	3746401.3	450.0	0.00	3.95	1.86	YES	HROFDY
L0005003	0	0.10680E-06	477357.7	3746405.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0005004	0	0.10680E-06	477350.0	3746408.7	450.0	0.00	3.95	1.86	YES	HROFDY
L0005005	0	0.10680E-06	477342.4	3746412.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0005006	0	0.10680E-06	477334.7	3746416.1	450.0	0.00	3.95	1.86	YES	HROFDY
L0005007	0	0.10680E-06	477328.2	3746421.6	450.0	0.00	3.95	1.86	YES	HROFDY
L0005008	0	0.10680E-06	477321.6	3746427.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0005009	0	0.10680E-06	477315.1	3746432.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0005010	0	0.10680E-06	477308.5	3746437.8	450.0	0.00	3.95	1.86	YES	HROFDY
L0005011	0	0.10680E-06	477302.0	3746443.3	450.0	0.00	3.95	1.86	YES	HROFDY
L0005012	0	0.10680E-06	477295.1	3746448.2	450.0	0.00	3.95	1.86	YES	HROFDY
L0005013	0	0.10680E-06	477288.2	3746453.1	450.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID	PART. CATS.	(GRAMS/SEC)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)	SOURCE	SCALAR VARY BY
L0005014	0	0.10680E-06	477281.2	3746458.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0005015	0	0.10680E-06	477274.3	3746462.9	450.0	0.00	3.95	1.86	YES	HROFDY
L0005016	0	0.10680E-06	477267.3	3746467.8	450.0	0.00	3.95	1.86	YES	HROFDY
L0005017	0	0.10680E-06	477260.3	3746472.7	450.0	0.00	3.95	1.86	YES	HROFDY
L0005018	0	0.10680E-06	477253.4	3746477.5	450.0	0.00	3.95	1.86	YES	HROFDY
L0005019	0	0.10680E-06	477246.4	3746482.4	450.1	0.00	3.95	1.86	YES	HROFDY
L0005020	0	0.10680E-06	477239.5	3746487.3	450.2	0.00	3.95	1.86	YES	HROFDY
L0005021	0	0.10680E-06	477232.5	3746492.2	450.3	0.00	3.95	1.86	YES	HROFDY
L0005022	0	0.10680E-06	477225.5	3746497.1	450.2	0.00	3.95	1.86	YES	HROFDY
L0005023	0	0.10680E-06	477218.6	3746501.9	450.2	0.00	3.95	1.86	YES	HROFDY
L0005024	0	0.10680E-06	477211.6	3746506.8	450.3	0.00	3.95	1.86	YES	HROFDY
L0005025	0	0.10680E-06	477204.7	3746511.7	450.5	0.00	3.95	1.86	YES	HROFDY
L0005026	0	0.10680E-06	477197.7	3746516.6	450.7	0.00	3.95	1.86	YES	HROFDY
L0005027	0	0.10680E-06	477190.7	3746521.5	451.0	0.00	3.95	1.86	YES	HROFDY
L0005028	0	0.10680E-06	477183.0	3746524.7	451.0	0.00	3.95	1.86	YES	HROFDY
L0005029	0	0.10680E-06	477174.8	3746526.9	451.0	0.00	3.95	1.86	YES	HROFDY
L0005030	0	0.10680E-06	477166.6	3746529.1	451.0	0.00	3.95	1.86	YES	HROFDY
L0005031	0	0.10680E-06	477158.4	3746531.3	451.0	0.00	3.95	1.86	YES	HROFDY
L0005032	0	0.10680E-06	477150.2	3746533.5	451.0	0.00	3.95	1.86	YES	HROFDY
L0005033	0	0.10680E-06	477142.0	3746535.8	451.0	0.00	3.95	1.86	YES	HROFDY
L0005034	0	0.10680E-06	477133.8	3746538.0	451.0	0.00	3.95	1.86	YES	HROFDY
L0005035	0	0.10680E-06	477125.6	3746540.2	451.0	0.00	3.95	1.86	YES	HROFDY
L0005036	0	0.10680E-06	477117.3	3746542.1	451.0	0.00	3.95	1.86	YES	HROFDY
L0005037	0	0.10680E-06	477108.8	3746542.7	451.0	0.00	3.95	1.86	YES	HROFDY
L0005038	0	0.10680E-06	477100.3	3746543.3	451.0	0.00	3.95	1.86	YES	HROFDY
L0005039	0	0.10680E-06	477091.9	3746543.9	451.0	0.00	3.95	1.86	YES	HROFDY
L0005040	0	0.10680E-06	477083.4	3746544.5	451.0	0.00	3.95	1.86	YES	HROFDY
L0005041	0	0.10680E-06	477074.9	3746545.1	451.0	0.00	3.95	1.86	YES	HROFDY
L0005042	0	0.10680E-06	477066.4	3746545.7	451.1	0.00	3.95	1.86	YES	HROFDY
L0005043	0	0.10680E-06	477058.0	3746546.3	451.3	0.00	3.95	1.86	YES	HROFDY
L0005044	0	0.10680E-06	477049.5	3746546.9	451.4	0.00	3.95	1.86	YES	HROFDY
L0005045	0	0.10680E-06	477041.0	3746547.5	451.6	0.00	3.95	1.86	YES	HROFDY
L0005046	0	0.10680E-06	477032.5	3746547.7	451.7	0.00	3.95	1.86	YES	HROFDY
L0005047	0	0.10680E-06	477024.0	3746547.8	451.8	0.00	3.95	1.86	YES	HROFDY
L0005048	0	0.10680E-06	477015.5	3746548.0	451.9	0.00	3.95	1.86	YES	HROFDY
L0005049	0	0.10680E-06	477007.0	3746548.1	452.0	0.00	3.95	1.86	YES	HROFDY
L0005050	0	0.10680E-06	476998.5	3746548.3	452.0	0.00	3.95	1.86	YES	HROFDY
L0005051	0	0.10680E-06	476990.0	3746548.4	452.0	0.00	3.95	1.86	YES	HROFDY
L0005052	0	0.10680E-06	476981.5	3746548.6	452.0	0.00	3.95	1.86	YES	HROFDY
L0005053	0	0.10680E-06	476973.0	3746548.7	452.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005054	0	0.10680E-06	476964.5	3746548.9	452.0	0.00	3.95	1.86	YES	HROFDY
L0005055	0	0.10680E-06	476956.0	3746549.1	452.0	0.00	3.95	1.86	YES	HROFDY
L0005056	0	0.10680E-06	476947.5	3746549.2	452.0	0.00	3.95	1.86	YES	HROFDY
L0005057	0	0.10680E-06	476939.0	3746549.4	452.0	0.00	3.95	1.86	YES	HROFDY
L0005058	0	0.10680E-06	476930.5	3746549.5	452.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0005059	0	0.10680E-06	476922.0	3746549.8	452.0	0.00	3.95	1.86	YES	HROFDY
L0005060	0	0.10680E-06	476913.5	3746550.0	452.1	0.00	3.95	1.86	YES	HROFDY
L0005061	0	0.10680E-06	476905.0	3746550.2	452.3	0.00	3.95	1.86	YES	HROFDY
L0005062	0	0.10680E-06	476896.5	3746550.4	452.4	0.00	3.95	1.86	YES	HROFDY
L0005063	0	0.10680E-06	476888.0	3746550.6	452.6	0.00	3.95	1.86	YES	HROFDY
L0005064	0	0.10680E-06	476879.5	3746550.8	452.7	0.00	3.95	1.86	YES	HROFDY
L0005065	0	0.10680E-06	476871.0	3746551.0	452.8	0.00	3.95	1.86	YES	HROFDY
L0005066	0	0.10680E-06	476862.5	3746551.2	453.0	0.00	3.95	1.86	YES	HROFDY
L0005067	0	0.10680E-06	476854.0	3746551.5	453.0	0.00	3.95	1.86	YES	HROFDY
L0005068	0	0.10680E-06	476845.5	3746551.7	453.0	0.00	3.95	1.86	YES	HROFDY
L0005069	0	0.10680E-06	476837.0	3746551.9	453.0	0.00	3.95	1.86	YES	HROFDY
L0005070	0	0.10680E-06	476828.5	3746552.1	453.0	0.00	3.95	1.86	YES	HROFDY
L0005071	0	0.10680E-06	476820.0	3746552.3	453.0	0.00	3.95	1.86	YES	HROFDY
L0005072	0	0.10680E-06	476811.6	3746552.5	453.0	0.00	3.95	1.86	YES	HROFDY
L0005073	0	0.10680E-06	476803.1	3746552.7	453.0	0.00	3.95	1.86	YES	HROFDY
L0005074	0	0.10680E-06	476794.6	3746552.9	453.0	0.00	3.95	1.86	YES	HROFDY
L0005075	0	0.10680E-06	476786.1	3746553.1	454.0	0.00	3.95	1.86	YES	HROFDY
L0005076	0	0.10680E-06	476777.6	3746552.3	454.0	0.00	3.95	1.86	YES	HROFDY
L0005077	0	0.10680E-06	476769.1	3746551.4	454.0	0.00	3.95	1.86	YES	HROFDY
L0005078	0	0.10680E-06	476760.7	3746550.6	454.0	0.00	3.95	1.86	YES	HROFDY
L0005079	0	0.10680E-06	476752.2	3746549.8	454.0	0.00	3.95	1.86	YES	HROFDY
L0005080	0	0.10680E-06	476743.7	3746549.3	454.0	0.00	3.95	1.86	YES	HROFDY
L0005081	0	0.10680E-06	476735.2	3746549.2	454.2	0.00	3.95	1.86	YES	HROFDY
L0005082	0	0.10680E-06	476726.7	3746549.0	454.4	0.00	3.95	1.86	YES	HROFDY
L0005083	0	0.10680E-06	476718.2	3746548.9	454.7	0.00	3.95	1.86	YES	HROFDY
L0005084	0	0.10680E-06	476709.7	3746548.8	455.0	0.00	3.95	1.86	YES	HROFDY
L0005085	0	0.10680E-06	476701.2	3746548.6	455.0	0.00	3.95	1.86	YES	HROFDY
L0005086	0	0.10680E-06	476692.7	3746548.5	455.0	0.00	3.95	1.86	YES	HROFDY
L0005087	0	0.10680E-06	476684.2	3746548.3	455.0	0.00	3.95	1.86	YES	HROFDY
L0005088	0	0.10680E-06	476675.7	3746548.2	455.0	0.00	3.95	1.86	YES	HROFDY
L0005089	0	0.10680E-06	476667.2	3746548.0	455.0	0.00	3.95	1.86	YES	HROFDY
L0005090	0	0.10680E-06	476658.7	3746547.9	455.0	0.00	3.95	1.86	YES	HROFDY
L0005091	0	0.10680E-06	476650.2	3746547.7	455.0	0.00	3.95	1.86	YES	HROFDY
L0005092	0	0.10680E-06	476641.8	3746547.6	455.2	0.00	3.95	1.86	YES	HROFDY
L0005093	0	0.10680E-06	476633.9	3746550.3	455.3	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005094	0	0.10680E-06	476626.3	3746554.1	455.3	0.00	3.95	1.86	YES	HROFDY
L0005095	0	0.10680E-06	476618.7	3746557.9	455.3	0.00	3.95	1.86	YES	HROFDY
L0005096	0	0.10680E-06	476611.1	3746561.7	455.4	0.00	3.95	1.86	YES	HROFDY
L0005097	0	0.10680E-06	476603.5	3746565.5	455.6	0.00	3.95	1.86	YES	HROFDY
L0005098	0	0.10680E-06	476596.1	3746569.7	455.8	0.00	3.95	1.86	YES	HROFDY
L0005099	0	0.10680E-06	476589.1	3746574.5	456.0	0.00	3.95	1.86	YES	HROFDY
L0005100	0	0.10680E-06	476582.1	3746579.4	456.0	0.00	3.95	1.86	YES	HROFDY
L0005101	0	0.10680E-06	476575.2	3746584.2	456.0	0.00	3.95	1.86	YES	HROFDY
L0005102	0	0.10680E-06	476568.2	3746589.1	456.0	0.00	3.95	1.86	YES	HROFDY
L0005103	0	0.10680E-06	476561.2	3746593.9	456.0	0.00	3.95	1.86	YES	HROFDY
L0005104	0	0.10680E-06	476554.4	3746599.0	456.0	0.00	3.95	1.86	YES	HROFDY
L0005105	0	0.10680E-06	476548.2	3746604.8	456.0	0.00	3.95	1.86	YES	HROFDY
L0005106	0	0.10680E-06	476542.1	3746610.7	456.0	0.00	3.95	1.86	YES	HROFDY
L0005107	0	0.10680E-06	476535.9	3746616.5	456.0	0.00	3.95	1.86	YES	HROFDY
L0005108	0	0.10680E-06	476529.7	3746622.4	456.0	0.00	3.95	1.86	YES	HROFDY

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L0005109	0	0.10680E-06	476523.6	3746628.2	456.0	0.00	3.95	1.86	YES	HROFDY
L0005110	0	0.10680E-06	476517.7	3746634.3	456.0	0.00	3.95	1.86	YES	HROFDY
L0005111	0	0.10680E-06	476514.0	3746642.0	456.0	0.00	3.95	1.86	YES	HROFDY
L0005112	0	0.10680E-06	476510.3	3746649.6	456.0	0.00	3.95	1.86	YES	HROFDY
L0005113	0	0.10680E-06	476506.7	3746657.3	456.0	0.00	3.95	1.86	YES	HROFDY
L0005114	0	0.10680E-06	476503.0	3746665.0	456.0	0.00	3.95	1.86	YES	HROFDY
L0005115	0	0.10680E-06	476499.3	3746672.6	456.0	0.00	3.95	1.86	YES	HROFDY
L0005116	0	0.10680E-06	476495.6	3746680.3	456.1	0.00	3.95	1.86	YES	HROFDY
L0005117	0	0.10680E-06	476492.2	3746688.1	456.3	0.00	3.95	1.86	YES	HROFDY
L0005118	0	0.10680E-06	476488.7	3746695.8	456.4	0.00	3.95	1.86	YES	HROFDY
L0005119	0	0.10680E-06	476485.3	3746703.6	456.5	0.00	3.95	1.86	YES	HROFDY
L0005120	0	0.10680E-06	476481.8	3746711.4	456.6	0.00	3.95	1.86	YES	HROFDY
L0005121	0	0.10680E-06	476478.4	3746719.1	456.7	0.00	3.95	1.86	YES	HROFDY
L0005122	0	0.10680E-06	476474.9	3746726.9	456.5	0.00	3.95	1.86	YES	HROFDY
L0005123	0	0.10680E-06	476471.5	3746734.7	456.4	0.00	3.95	1.86	YES	HROFDY
L0005124	0	0.10680E-06	476468.0	3746742.4	456.2	0.00	3.95	1.86	YES	HROFDY
L0005125	0	0.10680E-06	476465.1	3746750.4	456.2	0.00	3.95	1.86	YES	HROFDY
L0005126	0	0.10680E-06	476463.0	3746758.6	456.2	0.00	3.95	1.86	YES	HROFDY
L0005127	0	0.10680E-06	476461.0	3746766.9	456.3	0.00	3.95	1.86	YES	HROFDY
L0005128	0	0.10680E-06	476458.9	3746775.1	456.4	0.00	3.95	1.86	YES	HROFDY
L0005129	0	0.10680E-06	476456.8	3746783.4	456.4	0.00	3.95	1.86	YES	HROFDY
L0005130	0	0.10680E-06	476454.8	3746791.6	456.5	0.00	3.95	1.86	YES	HROFDY
L0005131	0	0.10680E-06	476452.7	3746799.9	456.6	0.00	3.95	1.86	YES	HROFDY
L0005132	0	0.10680E-06	476450.7	3746808.1	456.6	0.00	3.95	1.86	YES	HROFDY
L0005133	0	0.10680E-06	476448.6	3746816.3	456.5	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005134	0	0.10680E-06	476446.5	3746824.6	456.3	0.00	3.95	1.86	YES	HROFDY
L0005135	0	0.10680E-06	476444.5	3746832.8	456.1	0.00	3.95	1.86	YES	HROFDY
L0005136	0	0.10680E-06	476442.4	3746841.1	456.0	0.00	3.95	1.86	YES	HROFDY
L0005137	0	0.10680E-06	476438.2	3746848.2	456.1	0.00	3.95	1.86	YES	HROFDY
L0005138	0	0.10680E-06	476432.7	3746854.7	456.2	0.00	3.95	1.86	YES	HROFDY
L0005139	0	0.10680E-06	476427.2	3746861.1	456.4	0.00	3.95	1.86	YES	HROFDY
L0005140	0	0.10680E-06	476421.6	3746867.6	456.6	0.00	3.95	1.86	YES	HROFDY
L0005141	0	0.10680E-06	476416.1	3746874.1	456.6	0.00	3.95	1.86	YES	HROFDY
L0005142	0	0.10680E-06	476410.6	3746880.5	456.5	0.00	3.95	1.86	YES	HROFDY
L0005143	0	0.10680E-06	476405.0	3746887.0	456.4	0.00	3.95	1.86	YES	HROFDY
L0005144	0	0.10680E-06	476399.5	3746893.4	456.4	0.00	3.95	1.86	YES	HROFDY
L0005145	0	0.10680E-06	476393.5	3746899.4	456.5	0.00	3.95	1.86	YES	HROFDY
L0005146	0	0.10680E-06	476387.0	3746904.8	456.5	0.00	3.95	1.86	YES	HROFDY
L0005147	0	0.10680E-06	476380.5	3746910.3	456.5	0.00	3.95	1.86	YES	HROFDY
L0005148	0	0.10680E-06	476374.0	3746915.8	456.5	0.00	3.95	1.86	YES	HROFDY
L0005149	0	0.10680E-06	476367.5	3746921.3	456.5	0.00	3.95	1.86	YES	HROFDY
L0005150	0	0.10680E-06	476360.9	3746926.5	456.6	0.00	3.95	1.86	YES	HROFDY
L0005151	0	0.10680E-06	476352.7	3746928.8	456.8	0.00	3.95	1.86	YES	HROFDY
L0005152	0	0.10680E-06	476344.5	3746931.0	456.9	0.00	3.95	1.86	YES	HROFDY
L0005153	0	0.10680E-06	476336.3	3746933.3	456.9	0.00	3.95	1.86	YES	HROFDY
L0005154	0	0.10680E-06	476328.1	3746935.5	456.9	0.00	3.95	1.86	YES	HROFDY
L0005155	0	0.10680E-06	476319.9	3746937.7	457.0	0.00	3.95	1.86	YES	HROFDY
L0005156	0	0.10680E-06	476311.4	3746938.7	457.0	0.00	3.95	1.86	YES	HROFDY
L0005157	0	0.10680E-06	476303.0	3746939.8	457.0	0.00	3.95	1.86	YES	HROFDY
L0005158	0	0.10680E-06	476294.6	3746940.8	457.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                Residential
 L0005159         0   0.10680E-06  476286.1 3746941.9   457.0     0.00     3.95     1.86     YES   HROFDY
 L0005160         0   0.10680E-06  476277.7 3746942.9   457.0     0.00     3.95     1.86     YES   HROFDY
 L0005161         0   0.10680E-06  476269.3 3746944.0   457.0     0.00     3.95     1.86     YES   HROFDY
 L0005162         0   0.10680E-06  476260.8 3746945.0   457.0     0.00     3.95     1.86     YES   HROFDY
 L0005163         0   0.10680E-06  476252.3 3746945.2   457.0     0.00     3.95     1.86     YES   HROFDY
 L0005164         0   0.10680E-06  476243.8 3746945.3   457.0     0.00     3.95     1.86     YES   HROFDY
 L0005165         0   0.10680E-06  476235.3 3746945.5   457.0     0.00     3.95     1.86     YES   HROFDY
 L0005166         0   0.10680E-06  476226.8 3746945.6   457.0     0.00     3.95     1.86     YES   HROFDY
 L0005167         0   0.10680E-06  476218.3 3746945.8   457.1     0.00     3.95     1.86     YES   HROFDY
 L0005168         0   0.10680E-06  476209.8 3746945.9   457.2     0.00     3.95     1.86     YES   HROFDY
 L0005169         0   0.10680E-06  476201.3 3746946.0   457.3     0.00     3.95     1.86     YES   HROFDY
 L0005170         0   0.10680E-06  476192.8 3746946.2   457.5     0.00     3.95     1.86     YES   HROFDY
 L0005171         0   0.10680E-06  476184.3 3746946.3   457.7     0.00     3.95     1.86     YES   HROFDY
 L0005172         0   0.10680E-06  476175.8 3746946.4   457.9     0.00     3.95     1.86     YES   HROFDY
 L0005173         0   0.10680E-06  476167.3 3746946.6   458.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:11:49

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005174         0   0.10680E-06  476158.8 3746946.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0005175         0   0.10680E-06  476150.3 3746946.9   458.0     0.00     3.95     1.86     YES   HROFDY
 L0005176         0   0.10680E-06  476141.8 3746947.0   458.0     0.00     3.95     1.86     YES   HROFDY
 L0005177         0   0.10680E-06  476133.3 3746947.1   458.2     0.00     3.95     1.86     YES   HROFDY
 L0005178         0   0.10680E-06  476124.8 3746947.3   458.5     0.00     3.95     1.86     YES   HROFDY
 L0005179         0   0.10680E-06  476116.3 3746947.4   458.8     0.00     3.95     1.86     YES   HROFDY
 L0005180         0   0.10680E-06  476107.8 3746947.5   459.0     0.00     3.95     1.86     YES   HROFDY
 L0005181         0   0.10680E-06  476099.3 3746947.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0005182         0   0.10680E-06  476090.8 3746947.8   459.0     0.00     3.95     1.86     YES   HROFDY
 L0005183         0   0.10680E-06  476082.3 3746947.9   459.0     0.00     3.95     1.86     YES   HROFDY
 L0005184         0   0.10680E-06  476073.8 3746948.1   459.2     0.00     3.95     1.86     YES   HROFDY
 L0005185         0   0.10680E-06  476065.3 3746948.2   459.5     0.00     3.95     1.86     YES   HROFDY
 L0005186         0   0.10680E-06  476056.8 3746948.4   459.8     0.00     3.95     1.86     YES   HROFDY
 L0005187         0   0.10680E-06  476048.3 3746948.5   460.0     0.00     3.95     1.86     YES   HROFDY
 L0005188         0   0.10680E-06  476039.8 3746948.6   460.0     0.00     3.95     1.86     YES   HROFDY
 L0005189         0   0.10680E-06  476031.3 3746948.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0005190         0   0.11020E-07  479065.7 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005191         0   0.11020E-07  479057.2 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005192         0   0.11020E-07  479048.7 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005193         0   0.11020E-07  479040.2 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005194         0   0.11020E-07  479031.7 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005195         0   0.11020E-07  479023.2 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005196         0   0.11020E-07  479014.7 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005197         0   0.11020E-07  479006.2 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005198         0   0.11020E-07  478997.7 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005199         0   0.11020E-07  478989.2 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005200         0   0.11020E-07  478980.7 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005201         0   0.11020E-07  478972.2 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005202         0   0.11020E-07  478963.7 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005203         0   0.11020E-07  478955.2 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005204         0   0.11020E-07  478946.7 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005205         0   0.11020E-07  478938.2 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005206         0   0.11020E-07  478929.7 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005207         0   0.11020E-07  478921.2 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005208         0   0.11020E-07  478912.7 3747774.7   448.0     0.00     3.95     1.86     YES   HROFDY
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L0005209	0	0.11020E-07	478904.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005210	0	0.11020E-07	478895.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005211	0	0.11020E-07	478887.2	3747774.7	448.1	0.00	3.95	1.86	YES	HROFDY
L0005212	0	0.11020E-07	478878.7	3747774.7	448.2	0.00	3.95	1.86	YES	HROFDY
L0005213	0	0.11020E-07	478870.2	3747774.7	448.3	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005214	0	0.11020E-07	478861.7	3747774.7	448.5	0.00	3.95	1.86	YES	HROFDY
L0005215	0	0.11020E-07	478853.2	3747774.7	448.7	0.00	3.95	1.86	YES	HROFDY
L0005216	0	0.11020E-07	478844.7	3747774.7	448.9	0.00	3.95	1.86	YES	HROFDY
L0005217	0	0.11020E-07	478836.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005218	0	0.11020E-07	478827.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005219	0	0.11020E-07	478819.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005220	0	0.11020E-07	478810.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005221	0	0.11020E-07	478802.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005222	0	0.11020E-07	478793.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005223	0	0.11020E-07	478785.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005224	0	0.11020E-07	478776.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005225	0	0.11020E-07	478768.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005226	0	0.11020E-07	478759.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005227	0	0.11020E-07	478751.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005228	0	0.11020E-07	478742.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005229	0	0.11020E-07	478734.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005230	0	0.11020E-07	478725.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005231	0	0.11020E-07	478717.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005232	0	0.11020E-07	478708.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005233	0	0.11020E-07	478700.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005234	0	0.11020E-07	478691.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005235	0	0.11020E-07	478683.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005236	0	0.11020E-07	478674.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005237	0	0.11020E-07	478666.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005238	0	0.11020E-07	478657.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005239	0	0.11020E-07	478649.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005240	0	0.11020E-07	478640.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005241	0	0.11020E-07	478632.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005242	0	0.11020E-07	478623.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005243	0	0.11020E-07	478615.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005244	0	0.11020E-07	478606.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005245	0	0.11020E-07	478598.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005246	0	0.11020E-07	478589.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005247	0	0.11020E-07	478581.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005248	0	0.11020E-07	478572.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005249	0	0.11020E-07	478564.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005250	0	0.11020E-07	478555.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005251	0	0.11020E-07	478547.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005252	0	0.11020E-07	478538.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005253	0	0.11020E-07	478530.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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PAGE 22
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005254	0	0.11020E-07	478521.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005255	0	0.11020E-07	478513.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005256	0	0.11020E-07	478504.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005257	0	0.11020E-07	478496.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005258	0	0.11020E-07	478487.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005259	0	0.11020E-07	478479.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005260	0	0.11020E-07	478470.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005261	0	0.11020E-07	478462.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005262	0	0.11020E-07	478453.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005263	0	0.11020E-07	478445.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005264	0	0.11020E-07	478436.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005265	0	0.11020E-07	478428.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005266	0	0.11020E-07	478419.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005267	0	0.11020E-07	478411.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005268	0	0.11020E-07	478402.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005269	0	0.11020E-07	478394.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005270	0	0.11020E-07	478385.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005271	0	0.11020E-07	478377.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005272	0	0.11020E-07	478368.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005273	0	0.11020E-07	478360.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005274	0	0.11020E-07	478351.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005275	0	0.11020E-07	478343.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005276	0	0.11020E-07	478334.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005277	0	0.11020E-07	478326.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005278	0	0.11020E-07	478317.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005279	0	0.11020E-07	478309.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005280	0	0.11020E-07	478300.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005281	0	0.11020E-07	478292.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005282	0	0.11020E-07	478283.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005283	0	0.11020E-07	478275.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005284	0	0.11020E-07	478274.1	3747767.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005285	0	0.11020E-07	478274.2	3747758.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005286	0	0.11020E-07	478274.3	3747750.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005287	0	0.11020E-07	478274.4	3747741.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005288	0	0.11020E-07	478274.5	3747733.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005289	0	0.11020E-07	478274.6	3747724.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005290	0	0.11020E-07	478274.7	3747716.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005291	0	0.11020E-07	478274.8	3747707.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005292	0	0.11020E-07	478274.9	3747699.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005293	0	0.11020E-07	478275.0	3747690.9	449.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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L0005294	0	0.11020E-07	478275.0	3747682.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005295	0	0.11020E-07	478275.1	3747673.9	448.9	0.00	3.95	1.86	YES	HROFDY
L0005296	0	0.11020E-07	478275.2	3747665.4	448.6	0.00	3.95	1.86	YES	HROFDY
L0005297	0	0.11020E-07	478275.3	3747656.9	448.4	0.00	3.95	1.86	YES	HROFDY
L0005298	0	0.11020E-07	478275.4	3747648.4	448.1	0.00	3.95	1.86	YES	HROFDY
L0005299	0	0.11020E-07	478275.5	3747639.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005300	0	0.11020E-07	478275.6	3747631.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005301	0	0.11020E-07	478275.7	3747622.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005302	0	0.11020E-07	478275.8	3747614.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005303	0	0.11020E-07	478275.9	3747605.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005304	0	0.11020E-07	478276.0	3747597.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005305	0	0.11020E-07	478276.1	3747588.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005306	0	0.11020E-07	478276.2	3747580.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005307	0	0.11020E-07	478276.3	3747571.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005308	0	0.11020E-07	478276.4	3747563.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005309	0	0.11020E-07	478276.5	3747554.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005310	0	0.11020E-07	478276.6	3747546.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005311	0	0.11020E-07	478276.7	3747537.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005312	0	0.11020E-07	478276.8	3747529.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005313	0	0.11020E-07	478276.9	3747520.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005314	0	0.11020E-07	478277.0	3747512.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005315	0	0.11020E-07	478277.1	3747503.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005316	0	0.11020E-07	478277.2	3747495.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005317	0	0.11020E-07	478277.3	3747486.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005318	0	0.11020E-07	478277.4	3747478.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005319	0	0.11020E-07	478277.5	3747469.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005320	0	0.11020E-07	478277.6	3747461.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005321	0	0.11020E-07	478277.7	3747452.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005322	0	0.11020E-07	478277.8	3747444.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005323	0	0.11020E-07	478277.9	3747435.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005324	0	0.11020E-07	478278.0	3747427.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005325	0	0.11020E-07	478278.1	3747418.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005326	0	0.11020E-07	478278.2	3747410.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005327	0	0.11020E-07	478278.3	3747401.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005328	0	0.11020E-07	478278.4	3747393.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005329	0	0.11020E-07	478278.5	3747384.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005330	0	0.11020E-07	478278.6	3747376.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005331	0	0.11020E-07	478278.7	3747367.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005332	0	0.11020E-07	478278.8	3747359.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005333	0	0.11020E-07	478278.9	3747350.9	448.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005334	0	0.11020E-07	478279.0	3747342.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005335	0	0.11020E-07	478279.1	3747333.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005336	0	0.11020E-07	478279.2	3747325.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005337	0	0.11020E-07	478279.2	3747316.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005338	0	0.11020E-07	478279.3	3747308.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005339	0	0.11020E-07	478279.4	3747299.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005340	0	0.11020E-07	478279.5	3747291.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005341	0	0.11020E-07	478279.6	3747282.9	448.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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L0005342	0	0.11020E-07	478279.7	3747274.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005343	0	0.11020E-07	478279.8	3747265.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005344	0	0.11020E-07	478279.9	3747257.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005345	0	0.11020E-07	478280.0	3747248.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005346	0	0.11020E-07	478280.1	3747240.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005347	0	0.11020E-07	478280.2	3747231.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005348	0	0.11020E-07	478280.3	3747223.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005349	0	0.11020E-07	478280.4	3747214.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005350	0	0.11020E-07	478280.5	3747206.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005351	0	0.11020E-07	478280.6	3747197.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005352	0	0.11020E-07	478280.7	3747189.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005353	0	0.11020E-07	478280.8	3747180.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005354	0	0.11020E-07	478280.9	3747172.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005355	0	0.11020E-07	478281.0	3747163.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005356	0	0.11020E-07	478281.1	3747155.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005357	0	0.11020E-07	478281.2	3747146.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005358	0	0.11020E-07	478281.3	3747138.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005359	0	0.11020E-07	478281.4	3747129.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005360	0	0.11020E-07	478281.5	3747121.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005361	0	0.11020E-07	478281.6	3747112.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005362	0	0.11020E-07	478281.7	3747104.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005363	0	0.11020E-07	478281.8	3747095.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005364	0	0.11020E-07	478281.9	3747087.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005365	0	0.11020E-07	478282.0	3747078.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005366	0	0.11020E-07	478282.1	3747070.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005367	0	0.11020E-07	478282.2	3747061.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005368	0	0.11020E-07	478282.3	3747053.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005369	0	0.11020E-07	478282.4	3747044.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005370	0	0.11020E-07	478282.5	3747036.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005371	0	0.11020E-07	478282.6	3747028.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005372	0	0.11020E-07	478282.7	3747019.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005373	0	0.11020E-07	478282.8	3747011.0	448.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005374	0	0.11020E-07	478282.9	3747002.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005375	0	0.11020E-07	478283.0	3746994.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005376	0	0.11020E-07	478283.1	3746985.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005377	0	0.11020E-07	478283.2	3746977.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005378	0	0.11020E-07	478283.3	3746968.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005379	0	0.11020E-07	478283.4	3746960.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005380	0	0.11020E-07	478283.5	3746951.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005381	0	0.11020E-07	478283.5	3746943.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005382	0	0.11020E-07	478283.6	3746934.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005383	0	0.11020E-07	478283.7	3746926.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005384	0	0.11020E-07	478283.8	3746917.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005385	0	0.11020E-07	478283.9	3746909.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005386	0	0.11020E-07	478284.0	3746900.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005387	0	0.11020E-07	478284.1	3746892.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005388	0	0.11020E-07	478284.2	3746883.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005389	0	0.11020E-07	478284.3	3746875.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005390	0	0.11020E-07	478284.4	3746866.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005391	0	0.11020E-07	478284.5	3746858.0	447.9	0.00	3.95	1.86	YES	HROFDY

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L0005392	0	0.11020E-07	478284.6	3746849.5	447.7	0.00	3.95	1.86	YES	HROFDY
L0005393	0	0.11020E-07	478284.7	3746841.0	447.6	0.00	3.95	1.86	YES	HROFDY
L0005394	0	0.11020E-07	478284.8	3746832.5	447.4	0.00	3.95	1.86	YES	HROFDY
L0005395	0	0.11020E-07	478284.9	3746824.0	447.3	0.00	3.95	1.86	YES	HROFDY
L0005396	0	0.11020E-07	478285.0	3746815.5	447.2	0.00	3.95	1.86	YES	HROFDY
L0005397	0	0.11020E-07	478285.1	3746807.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0005398	0	0.11020E-07	478285.2	3746798.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0005399	0	0.11020E-07	478285.3	3746790.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0005400	0	0.11020E-07	478285.4	3746781.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0005401	0	0.11020E-07	478285.5	3746773.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0005402	0	0.17290E-07	479065.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005403	0	0.17290E-07	479057.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005404	0	0.17290E-07	479048.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005405	0	0.17290E-07	479040.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005406	0	0.17290E-07	479031.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005407	0	0.17290E-07	479023.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005408	0	0.17290E-07	479014.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005409	0	0.17290E-07	479006.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005410	0	0.17290E-07	478997.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005411	0	0.17290E-07	478989.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005412	0	0.17290E-07	478980.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005413	0	0.17290E-07	478972.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005414	0	0.17290E-07	478963.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005415	0	0.17290E-07	478955.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005416	0	0.17290E-07	478946.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005417	0	0.17290E-07	478938.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005418	0	0.17290E-07	478929.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005419	0	0.17290E-07	478921.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005420	0	0.17290E-07	478912.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005421	0	0.17290E-07	478904.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005422	0	0.17290E-07	478895.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005423	0	0.17290E-07	478887.2	3747774.7	448.1	0.00	3.95	1.86	YES	HROFDY
L0005424	0	0.17290E-07	478878.7	3747774.7	448.2	0.00	3.95	1.86	YES	HROFDY
L0005425	0	0.17290E-07	478870.2	3747774.7	448.3	0.00	3.95	1.86	YES	HROFDY
L0005426	0	0.17290E-07	478861.7	3747774.7	448.5	0.00	3.95	1.86	YES	HROFDY
L0005427	0	0.17290E-07	478853.2	3747774.7	448.7	0.00	3.95	1.86	YES	HROFDY
L0005428	0	0.17290E-07	478844.7	3747774.7	448.9	0.00	3.95	1.86	YES	HROFDY
L0005429	0	0.17290E-07	478836.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005430	0	0.17290E-07	478827.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005431	0	0.17290E-07	478819.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005432	0	0.17290E-07	478810.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005433	0	0.17290E-07	478802.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005434	0	0.17290E-07	478793.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005435	0	0.17290E-07	478785.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005436	0	0.17290E-07	478776.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005437	0	0.17290E-07	478768.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005438	0	0.17290E-07	478759.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005439	0	0.17290E-07	478751.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005440	0	0.17290E-07	478742.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005441	0	0.17290E-07	478734.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY

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L0005442	0	0.17290E-07	478725.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005443	0	0.17290E-07	478717.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005444	0	0.17290E-07	478708.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005445	0	0.17290E-07	478700.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005446	0	0.17290E-07	478691.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005447	0	0.17290E-07	478683.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005448	0	0.17290E-07	478674.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005449	0	0.17290E-07	478666.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005450	0	0.17290E-07	478657.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005451	0	0.17290E-07	478649.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005452	0	0.17290E-07	478640.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005453	0	0.17290E-07	478632.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005454	0	0.17290E-07	478623.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005455	0	0.17290E-07	478615.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005456	0	0.17290E-07	478606.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005457	0	0.17290E-07	478598.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005458	0	0.17290E-07	478589.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005459	0	0.17290E-07	478581.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005460	0	0.17290E-07	478572.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005461	0	0.17290E-07	478564.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005462	0	0.17290E-07	478555.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005463	0	0.17290E-07	478547.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005464	0	0.17290E-07	478538.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005465	0	0.17290E-07	478530.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005466	0	0.17290E-07	478521.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005467	0	0.17290E-07	478513.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005468	0	0.17290E-07	478504.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005469	0	0.17290E-07	478496.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005470	0	0.17290E-07	478487.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005471	0	0.17290E-07	478479.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005472	0	0.17290E-07	478470.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005473	0	0.17290E-07	478462.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005474	0	0.17290E-07	478453.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005475	0	0.17290E-07	478445.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005476	0	0.17290E-07	478436.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005477	0	0.17290E-07	478428.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005478	0	0.17290E-07	478419.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005479	0	0.17290E-07	478411.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005480	0	0.17290E-07	478402.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005481	0	0.17290E-07	478394.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005482	0	0.17290E-07	478385.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005483	0	0.17290E-07	478377.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005484	0	0.17290E-07	478368.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005485	0	0.17290E-07	478360.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005486	0	0.17290E-07	478351.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005487	0	0.17290E-07	478343.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005488	0	0.17290E-07	478334.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005489	0	0.17290E-07	478326.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005490	0	0.17290E-07	478317.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005491	0	0.17290E-07	478309.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY

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L0005492	0	0.17290E-07	478300.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005493	0	0.17290E-07	478292.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005494	0	0.17290E-07	478283.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005495	0	0.17290E-07	478275.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005496	0	0.17290E-07	478274.1	3747767.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005497	0	0.17290E-07	478274.2	3747758.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005498	0	0.17290E-07	478274.3	3747750.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005499	0	0.17290E-07	478274.4	3747741.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005500	0	0.17290E-07	478274.5	3747733.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005501	0	0.17290E-07	478274.6	3747724.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005502	0	0.17290E-07	478274.7	3747716.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005503	0	0.17290E-07	478274.8	3747707.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005504	0	0.17290E-07	478274.9	3747699.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005505	0	0.17290E-07	478275.0	3747690.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005506	0	0.17290E-07	478275.0	3747682.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005507	0	0.17290E-07	478275.1	3747673.9	448.9	0.00	3.95	1.86	YES	HROFDY
L0005508	0	0.17290E-07	478275.2	3747665.4	448.6	0.00	3.95	1.86	YES	HROFDY
L0005509	0	0.17290E-07	478275.3	3747656.9	448.4	0.00	3.95	1.86	YES	HROFDY
L0005510	0	0.17290E-07	478275.4	3747648.4	448.1	0.00	3.95	1.86	YES	HROFDY
L0005511	0	0.17290E-07	478275.5	3747639.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005512	0	0.17290E-07	478275.6	3747631.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005513	0	0.17290E-07	478275.7	3747622.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005514	0	0.17290E-07	478275.8	3747614.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005515	0	0.17290E-07	478275.9	3747605.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005516	0	0.17290E-07	478276.0	3747597.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005517	0	0.17290E-07	478276.1	3747588.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005518	0	0.17290E-07	478276.2	3747580.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005519	0	0.17290E-07	478276.3	3747571.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005520	0	0.17290E-07	478276.4	3747563.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005521	0	0.17290E-07	478276.5	3747554.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005522	0	0.17290E-07	478276.6	3747546.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005523	0	0.17290E-07	478276.7	3747537.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005524	0	0.17290E-07	478276.8	3747529.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005525	0	0.17290E-07	478276.9	3747520.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005526	0	0.17290E-07	478277.0	3747512.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005527	0	0.17290E-07	478277.1	3747503.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005528	0	0.17290E-07	478277.2	3747495.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005529	0	0.17290E-07	478277.3	3747486.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005530	0	0.17290E-07	478277.4	3747478.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005531	0	0.17290E-07	478277.5	3747469.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005532	0	0.17290E-07	478277.6	3747461.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005533	0	0.17290E-07	478277.7	3747452.9	448.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005534	0	0.17290E-07	478277.8	3747444.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005535	0	0.17290E-07	478277.9	3747435.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005536	0	0.17290E-07	478278.0	3747427.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005537	0	0.17290E-07	478278.1	3747418.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005538	0	0.17290E-07	478278.2	3747410.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005539	0	0.17290E-07	478278.3	3747401.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005540	0	0.17290E-07	478278.4	3747393.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005541	0	0.17290E-07	478278.5	3747384.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005542	0	0.17290E-07	478278.6	3747376.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005543	0	0.17290E-07	478278.7	3747367.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005544	0	0.17290E-07	478278.8	3747359.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005545	0	0.17290E-07	478278.9	3747350.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005546	0	0.17290E-07	478279.0	3747342.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005547	0	0.17290E-07	478279.1	3747333.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005548	0	0.17290E-07	478279.2	3747325.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005549	0	0.17290E-07	478279.2	3747316.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005550	0	0.17290E-07	478279.3	3747308.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005551	0	0.17290E-07	478279.4	3747299.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005552	0	0.17290E-07	478279.5	3747291.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005553	0	0.17290E-07	478279.6	3747282.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005554	0	0.17290E-07	478279.7	3747274.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005555	0	0.17290E-07	478279.8	3747265.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005556	0	0.17290E-07	478279.9	3747257.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005557	0	0.17290E-07	478280.0	3747248.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005558	0	0.17290E-07	478280.1	3747240.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005559	0	0.17290E-07	478280.2	3747231.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005560	0	0.17290E-07	478280.3	3747223.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005561	0	0.17290E-07	478280.4	3747214.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005562	0	0.17290E-07	478280.5	3747206.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005563	0	0.17290E-07	478280.6	3747197.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005564	0	0.17290E-07	478280.7	3747189.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005565	0	0.17290E-07	478280.8	3747180.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005566	0	0.17290E-07	478280.9	3747172.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005567	0	0.17290E-07	478281.0	3747163.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005568	0	0.17290E-07	478281.1	3747155.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005569	0	0.17290E-07	478281.2	3747146.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005570	0	0.17290E-07	478281.3	3747138.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005571	0	0.17290E-07	478281.4	3747129.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005572	0	0.17290E-07	478281.5	3747121.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005573	0	0.17290E-07	478281.6	3747112.9	448.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005574	0	0.17290E-07	478281.7	3747104.4	448.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0005575	0	0.17290E-07	478281.8	3747095.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005576	0	0.17290E-07	478281.9	3747087.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005577	0	0.17290E-07	478282.0	3747078.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005578	0	0.17290E-07	478282.1	3747070.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005579	0	0.17290E-07	478282.2	3747061.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005580	0	0.17290E-07	478282.3	3747053.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005581	0	0.17290E-07	478282.4	3747044.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005582	0	0.17290E-07	478282.5	3747036.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005583	0	0.17290E-07	478282.6	3747028.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005584	0	0.17290E-07	478282.7	3747019.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005585	0	0.17290E-07	478282.8	3747011.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005586	0	0.17290E-07	478282.9	3747002.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005587	0	0.17290E-07	478283.0	3746994.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005588	0	0.17290E-07	478283.1	3746985.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005589	0	0.17290E-07	478283.2	3746977.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005590	0	0.17290E-07	478283.3	3746968.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005591	0	0.17290E-07	478283.4	3746960.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005592	0	0.17290E-07	478283.5	3746951.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005593	0	0.17290E-07	478283.5	3746943.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005594	0	0.17290E-07	478283.6	3746934.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005595	0	0.17290E-07	478283.7	3746926.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005596	0	0.17290E-07	478283.8	3746917.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005597	0	0.17290E-07	478283.9	3746909.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005598	0	0.17290E-07	478284.0	3746900.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005599	0	0.17290E-07	478284.1	3746892.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005600	0	0.17290E-07	478284.2	3746883.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005601	0	0.17290E-07	478284.3	3746875.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005602	0	0.17290E-07	478284.4	3746866.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005603	0	0.17290E-07	478284.5	3746858.0	447.9	0.00	3.95	1.86	YES	HROFDY
L0005604	0	0.17290E-07	478284.6	3746849.5	447.7	0.00	3.95	1.86	YES	HROFDY
L0005605	0	0.17290E-07	478284.7	3746841.0	447.6	0.00	3.95	1.86	YES	HROFDY
L0005606	0	0.17290E-07	478284.8	3746832.5	447.4	0.00	3.95	1.86	YES	HROFDY
L0005607	0	0.17290E-07	478284.9	3746824.0	447.3	0.00	3.95	1.86	YES	HROFDY
L0005608	0	0.17290E-07	478285.0	3746815.5	447.2	0.00	3.95	1.86	YES	HROFDY
L0005609	0	0.17290E-07	478285.1	3746807.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0005610	0	0.17290E-07	478285.2	3746798.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0005611	0	0.17290E-07	478285.3	3746790.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0005612	0	0.17290E-07	478285.4	3746781.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0005613	0	0.17290E-07	478285.5	3746773.0	447.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005614	0	0.59290E-08	478283.7	3746787.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0005615	0	0.59290E-08	478283.6	3746795.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0005616	0	0.59290E-08	478283.4	3746804.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0005617	0	0.59290E-08	478283.3	3746812.7	447.1	0.00	3.95	1.86	YES	HROFDY
L0005618	0	0.59290E-08	478283.1	3746821.2	447.3	0.00	3.95	1.86	YES	HROFDY
L0005619	0	0.59290E-08	478282.9	3746829.7	447.4	0.00	3.95	1.86	YES	HROFDY
L0005620	0	0.59290E-08	478282.8	3746838.2	447.6	0.00	3.95	1.86	YES	HROFDY
L0005621	0	0.59290E-08	478282.6	3746846.7	447.7	0.00	3.95	1.86	YES	HROFDY
L0005622	0	0.59290E-08	478282.5	3746855.2	447.9	0.00	3.95	1.86	YES	HROFDY
L0005623	0	0.59290E-08	478282.3	3746863.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005624	0	0.59290E-08	478282.1	3746872.2	448.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0005625	0	0.59290E-08	478282.0	3746880.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005626	0	0.59290E-08	478281.8	3746889.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005627	0	0.59290E-08	478281.6	3746897.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005628	0	0.59290E-08	478281.5	3746906.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005629	0	0.59290E-08	478281.3	3746914.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005630	0	0.59290E-08	478281.2	3746923.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005631	0	0.59290E-08	478281.0	3746931.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005632	0	0.59290E-08	478280.8	3746940.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005633	0	0.59290E-08	478280.7	3746948.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005634	0	0.59290E-08	478280.5	3746957.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005635	0	0.59290E-08	478280.4	3746965.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005636	0	0.59290E-08	478288.9	3746965.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005637	0	0.59290E-08	478297.4	3746965.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005638	0	0.59290E-08	478305.9	3746965.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005639	0	0.59290E-08	478314.4	3746965.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0005640	0	0.59290E-08	478322.9	3746965.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0005641	0	0.59290E-08	478331.4	3746965.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005642	0	0.59290E-08	478339.9	3746965.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0005643	0	0.59290E-08	478348.4	3746965.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005644	0	0.59290E-08	478356.9	3746965.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005645	0	0.59290E-08	478365.4	3746964.9	447.9	0.00	3.95	1.86	YES	HROFDY
L0005646	0	0.59290E-08	478373.9	3746964.8	447.7	0.00	3.95	1.86	YES	HROFDY
L0005647	0	0.59290E-08	478382.4	3746964.8	447.5	0.00	3.95	1.86	YES	HROFDY
L0005648	0	0.59290E-08	478390.9	3746964.7	447.3	0.00	3.95	1.86	YES	HROFDY
L0005649	0	0.59290E-08	478399.4	3746964.6	447.2	0.00	3.95	1.86	YES	HROFDY
L0005650	0	0.59290E-08	478407.9	3746964.5	447.1	0.00	3.95	1.86	YES	HROFDY
L0005651	0	0.59290E-08	478416.4	3746964.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0005652	0	0.59290E-08	478424.9	3746964.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0005653	0	0.59290E-08	478433.4	3746964.3	447.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005654	0	0.59290E-08	478441.9	3746964.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0005655	0	0.59290E-08	478450.4	3746964.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0005656	0	0.59290E-08	478458.9	3746964.1	447.0	0.00	3.95	1.86	YES	HROFDY
L0005657	0	0.59290E-08	478467.4	3746964.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0005658	0	0.59290E-08	478475.9	3746963.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0005659	0	0.59290E-08	478484.4	3746963.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0005660	0	0.59290E-08	478492.9	3746963.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0005661	0	0.59290E-08	478501.4	3746963.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0005662	0	0.59290E-08	478509.9	3746963.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0005663	0	0.59290E-08	478518.4	3746963.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0005664	0	0.59290E-08	478526.9	3746963.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0005665	0	0.59290E-08	478535.4	3746963.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0005666	0	0.59290E-08	478543.9	3746963.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0005667	0	0.59290E-08	478552.4	3746963.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0005668	0	0.59290E-08	478560.9	3746963.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0005669	0	0.59290E-08	478569.4	3746963.1	447.0	0.00	3.95	1.86	YES	HROFDY
L0005670	0	0.59290E-08	478577.9	3746963.1	447.0	0.00	3.95	1.86	YES	HROFDY
L0005671	0	0.59290E-08	478586.4	3746963.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0005672	0	0.59290E-08	478594.9	3746962.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0005673	0	0.59290E-08	478603.4	3746962.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0005674	0	0.59290E-08	478611.9	3746962.8	447.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                Residential
 L0005675         0   0.59290E-08  478620.4 3746962.7   447.0     0.00     3.95     1.86     YES   HROFDY
 L0005676         0   0.59290E-08  478628.9 3746962.6   447.0     0.00     3.95     1.86     YES   HROFDY
 L0005677         0   0.59290E-08  478637.4 3746962.6   447.0     0.00     3.95     1.86     YES   HROFDY
 L0005678         0   0.59290E-08  478645.9 3746962.5   447.0     0.00     3.95     1.86     YES   HROFDY
 L0005679         0   0.59290E-08  478654.4 3746962.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0005680         0   0.59290E-08  478662.9 3746962.3   446.9     0.00     3.95     1.86     YES   HROFDY
 L0005681         0   0.59290E-08  478671.4 3746962.3   446.7     0.00     3.95     1.86     YES   HROFDY
 L0005682         0   0.59290E-08  478679.9 3746962.2   446.5     0.00     3.95     1.86     YES   HROFDY
 L0005683         0   0.59290E-08  478688.4 3746962.1   446.2     0.00     3.95     1.86     YES   HROFDY
 L0005684         0   0.59290E-08  478696.9 3746962.0   446.2     0.00     3.95     1.86     YES   HROFDY
 L0005685         0   0.59290E-08  478705.4 3746962.0   446.2     0.00     3.95     1.86     YES   HROFDY
 L0005686         0   0.59290E-08  478713.9 3746961.9   446.2     0.00     3.95     1.86     YES   HROFDY
 L0005687         0   0.59290E-08  478722.4 3746961.8   446.2     0.00     3.95     1.86     YES   HROFDY
 L0005688         0   0.59290E-08  478730.9 3746961.8   446.1     0.00     3.95     1.86     YES   HROFDY
 L0005689         0   0.59290E-08  478739.4 3746961.7   446.1     0.00     3.95     1.86     YES   HROFDY
 L0005690         0   0.59290E-08  478747.9 3746961.6   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005691         0   0.59290E-08  478756.4 3746961.5   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005692         0   0.59290E-08  478764.9 3746961.5   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005693         0   0.59290E-08  478773.4 3746961.4   446.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                        ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** VOLUME SOURCE DATA ***

             NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE     PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID       CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 L0005694         0   0.59290E-08  478781.9 3746961.3   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005695         0   0.59290E-08  478790.4 3746961.2   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005696         0   0.59290E-08  478798.9 3746961.2   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005697         0   0.59290E-08  478807.4 3746961.1   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005698         0   0.59290E-08  478815.9 3746961.0   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005699         0   0.59290E-08  478824.4 3746960.9   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005700         0   0.59290E-08  478832.9 3746960.9   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005701         0   0.59290E-08  478841.4 3746960.8   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005702         0   0.59290E-08  478849.9 3746960.7   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005703         0   0.59290E-08  478858.4 3746960.7   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005704         0   0.59290E-08  478866.9 3746960.6   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005705         0   0.59290E-08  478875.4 3746960.5   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005706         0   0.59290E-08  478883.9 3746960.4   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005707         0   0.59290E-08  478892.4 3746960.4   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005708         0   0.59290E-08  478900.9 3746960.3   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005709         0   0.59290E-08  478909.4 3746960.2   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005710         0   0.59290E-08  478917.9 3746960.1   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005711         0   0.59290E-08  478926.4 3746960.1   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005712         0   0.59290E-08  478934.9 3746960.0   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005713         0   0.59290E-08  478943.4 3746959.9   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005714         0   0.59290E-08  478951.9 3746959.9   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005715         0   0.59290E-08  478960.4 3746959.8   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005716         0   0.59290E-08  478968.9 3746959.7   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005717         0   0.59290E-08  478977.4 3746959.6   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005718         0   0.59290E-08  478985.9 3746959.6   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005719         0   0.59290E-08  478994.4 3746959.5   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005720         0   0.59290E-08  479002.9 3746959.4   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005721         0   0.59290E-08  479011.4 3746959.3   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005722         0   0.59290E-08  479019.9 3746959.3   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005723         0   0.59290E-08  479028.4 3746959.2   446.0     0.00     3.95     1.86     YES   HROFDY
 L0005724         0   0.59290E-08  479036.9 3746959.1   446.0     0.00     3.95     1.86     YES   HROFDY
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SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005725	0	0.59290E-08	479045.4	3746959.0	446.0	0.00	3.95	1.86	YES	HROFDY
L0005726	0	0.59290E-08	479053.9	3746959.0	446.0	0.00	3.95	1.86	YES	HROFDY
L0005727	0	0.59290E-08	479062.4	3746958.9	446.0	0.00	3.95	1.86	YES	HROFDY
L0005728	0	0.59290E-08	479070.9	3746958.8	446.0	0.00	3.95	1.86	YES	HROFDY
L0005729	0	0.59290E-08	479079.4	3746958.8	446.0	0.00	3.95	1.86	YES	HROFDY
L0005730	0	0.19950E-05	477927.9	3746810.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0005731	0	0.19950E-05	477936.4	3746810.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0005732	0	0.19950E-05	477944.9	3746810.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0005733	0	0.19950E-05	477953.4	3746810.2	448.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005734	0	0.19950E-05	477961.9	3746810.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005735	0	0.19950E-05	477970.4	3746810.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0005736	0	0.19950E-05	477978.9	3746810.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0005737	0	0.19950E-05	477987.4	3746810.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0005738	0	0.19950E-05	477995.9	3746810.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005739	0	0.19950E-05	478004.4	3746810.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005740	0	0.19950E-05	478012.9	3746809.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005741	0	0.19950E-05	478021.4	3746809.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005742	0	0.19950E-05	478029.9	3746809.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005743	0	0.19950E-05	478038.4	3746809.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005744	0	0.19950E-05	478046.9	3746809.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005745	0	0.19950E-05	478055.4	3746809.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005746	0	0.19950E-05	478063.9	3746809.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005747	0	0.19950E-05	478072.4	3746809.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005748	0	0.19950E-05	478080.9	3746809.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005749	0	0.19950E-05	478089.4	3746809.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005750	0	0.19950E-05	478097.9	3746809.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005751	0	0.19950E-05	478106.4	3746809.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005752	0	0.19950E-05	478114.9	3746809.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005753	0	0.19950E-05	478123.4	3746809.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005754	0	0.19950E-05	478131.9	3746809.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005755	0	0.19950E-05	478140.4	3746809.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005756	0	0.19950E-05	478148.9	3746809.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0005757	0	0.19950E-05	478157.4	3746809.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0005758	0	0.19950E-05	478165.9	3746809.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005759	0	0.19950E-05	478174.4	3746809.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005760	0	0.45070E-06	478266.8	3746792.2	447.1	0.00	3.95	1.86	YES	HROFDY
L0005761	0	0.45070E-06	478258.3	3746792.2	447.2	0.00	3.95	1.86	YES	HROFDY
L0005762	0	0.45070E-06	478249.8	3746792.2	447.4	0.00	3.95	1.86	YES	HROFDY
L0005763	0	0.45070E-06	478241.3	3746792.1	447.5	0.00	3.95	1.86	YES	HROFDY
L0005764	0	0.45070E-06	478232.8	3746792.1	447.6	0.00	3.95	1.86	YES	HROFDY
L0005765	0	0.45070E-06	478224.3	3746792.1	447.8	0.00	3.95	1.86	YES	HROFDY
L0005766	0	0.45070E-06	478215.8	3746792.1	447.9	0.00	3.95	1.86	YES	HROFDY
L0005767	0	0.45070E-06	478207.3	3746792.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005768	0	0.45070E-06	478198.8	3746792.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005769	0	0.45070E-06	478190.3	3746792.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005770	0	0.45070E-06	478181.8	3746792.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005771	0	0.45070E-06	478173.3	3746792.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005772	0	0.45070E-06	478164.8	3746791.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005773	0	0.45070E-06	478156.3	3746791.9	448.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005774	0	0.45070E-06	478147.8	3746791.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005775	0	0.45070E-06	478139.3	3746791.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005776	0	0.45070E-06	478130.8	3746791.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005777	0	0.45070E-06	478122.3	3746791.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005778	0	0.45070E-06	478113.8	3746791.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005779	0	0.45070E-06	478105.3	3746791.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005780	0	0.45070E-06	478096.8	3746791.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005781	0	0.45070E-06	478088.3	3746791.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005782	0	0.45070E-06	478079.8	3746791.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005783	0	0.45070E-06	478071.3	3746791.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005784	0	0.45070E-06	478062.8	3746791.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005785	0	0.45070E-06	478054.3	3746791.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005786	0	0.45070E-06	478045.8	3746791.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005787	0	0.45070E-06	478037.3	3746791.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005788	0	0.45070E-06	478028.8	3746791.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005789	0	0.45070E-06	478020.3	3746791.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005790	0	0.45070E-06	478011.8	3746791.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005791	0	0.45070E-06	478003.3	3746791.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005792	0	0.45070E-06	477994.8	3746791.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005793	0	0.45070E-06	477986.3	3746791.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005794	0	0.45070E-06	477977.8	3746791.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005795	0	0.45070E-06	477969.3	3746791.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005796	0	0.45070E-06	477960.8	3746791.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005797	0	0.45070E-06	477952.3	3746791.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005798	0	0.45070E-06	477943.8	3746791.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005799	0	0.45070E-06	477935.3	3746791.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005800	0	0.45070E-06	477926.8	3746791.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005801	0	0.45070E-06	477918.3	3746791.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005802	0	0.45070E-06	477909.8	3746791.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005803	0	0.45070E-06	477901.3	3746791.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005804	0	0.45070E-06	477892.8	3746791.5	448.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

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♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

PAGE 37
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID SOURCE IDs
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE  38
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID SOURCE IDs

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID SOURCE IDs

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

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STCK2 , STCK3 , STCK4 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
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		L0004502 , L0004503 , L0004504 , L0004505 , L0004506 , L0004507 , L0004508 , L0004509 ,
		L0004510 , L0004511 , L0004512 , L0004513 , L0004514 , L0004515 , L0004516 , L0004517 ,
		L0004518 , L0004519 , L0004520 , L0004521 , L0004522 , L0004523 , L0004524 , L0004525 ,
		L0004526 , L0004527 , L0004528 , L0004529 , L0004530 , L0004531 , L0004532 , L0004533 ,
		L0004534 , L0004535 , L0004536 , L0004537 , L0004538 , L0004539 , L0004540 , L0004541 ,
		L0004542 , L0004543 , L0004544 , L0004545 , L0004546 , L0004547 , L0004548 , L0004549 ,
		L0004550 , L0004551 , L0004552 , L0004553 , L0004554 , L0004555 , L0004556 , L0004557 ,
		L0004558 , L0004559 , L0004560 , L0004561 , L0004562 , L0004563 , L0004564 , L0004565 ,
		L0004566 , L0004567 , L0004568 , L0004569 , L0004570 , L0004571 , L0004572 , L0004573 ,
		L0004574 , L0004575 , L0004576 , L0004577 , L0004578 , L0004579 , L0004580 , L0004581 ,
		L0004582 , L0004583 , L0004584 , L0004585 , L0004586 , L0004587 , L0004588 , L0004589 ,
		L0004590 , L0004591 , L0004592 , L0004593 , L0004594 , L0004595 , L0004596 , L0004597 ,
		L0004598 , L0004599 , L0004600 , L0004601 , L0004602 , L0004603 , L0004604 , L0004605 ,
		L0004606 , L0004607 , L0004608 , L0004609 , L0004610 , L0004611 , L0004612 , L0004613 ,
		L0004614 , L0004615 , L0004616 , L0004617 , L0004618 , L0004619 , L0004620 , L0004621 ,
		L0004622 , L0004623 , L0004624 , L0004625 , L0004626 , L0004627 , L0004628 , L0004629 ,
		L0004630 , L0004631 , L0004632 , L0004633 , L0004634 , L0004635 , L0004636 , L0004637 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
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             L0004646    , L0004647    , L0004648    , L0004649    , L0004650    , L0004651    , L0004652    ,
L0004653    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:11:49

   PAGE  46
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                              SOURCE IDs
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             L0004654    , L0004655    , L0004656    , L0004657    , L0004658    , L0004659    , L0004660    ,
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             L0004662    , L0004663    , L0004664    , L0004665    , L0004666    , L0004667    , L0004668    ,
L0004669    ,

             L0004670    , L0004671    , L0004672    , L0004673    , L0004674    , L0004675    , L0004676    ,
L0004677    ,

             L0004678    , L0004679    , L0004680    , L0004681    , L0004682    , L0004683    , L0004684    ,
L0004685    ,

             L0004686    , L0004687    , L0004688    , L0004689    , L0004690    , L0004691    , L0004692    ,
L0004693    ,

             L0004694    , L0004695    , L0004696    , L0004697    , L0004698    , L0004699    , L0004700    ,
L0004701    ,

             L0004702    , L0004703    , L0004704    , L0004705    , L0004706    , L0004707    , L0004708    ,
L0004709    ,

             L0004710    , L0004711    , L0004712    , L0004713    , L0004714    , L0004715    , L0004716    ,
L0004717    ,

             L0004718    , L0004719    , L0004720    , L0004721    , L0004722    , L0004723    , L0004724    ,
L0004725    ,

             L0004726    , L0004727    , L0004728    , L0004729    , L0004730    , L0004731    , L0004732    ,
L0004733    ,

             L0004734    , L0004735    , L0004736    , L0004737    , L0004738    , L0004739    , L0004740    ,
L0004741    ,

             L0004742    , L0004743    , L0004744    , L0004745    , L0004746    , L0004747    , L0004748    ,
L0004749    ,

             L0004750    , L0004751    , L0004752    , L0004753    , L0004754    , L0004755    , L0004756    ,
L0004757    ,

             L0004758    , L0004759    , L0004760    , L0004761    , L0004762    , L0004763    , L0004764    ,
L0004765    ,

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L0004781    ,
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Residential

L0004782 , L0004783 , L0004784 , L0004785 , L0004786 , L0004787 , L0004788 , L0004789 ,

L0004790 , L0004791 , L0004792 , L0004793 , L0004794 , L0004795 , L0004796 , L0004797 ,

L0004798 , L0004799 , L0004800 , L0004801 , L0004802 , L0004803 , L0004804 , L0004805 ,

L0004806 , L0004807 , L0004808 , L0004809 , L0004810 , L0004811 , L0004812 , L0004813 ,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0004814 , L0004815 , L0004816 , L0004817 , L0004818 , L0004819 , L0004820 , L0004821 ,

L0004822 , L0004823 , L0004824 , L0004825 , L0004826 , L0004827 , L0004828 , L0004829 ,

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L0004846 , L0004847 , L0004848 , L0004849 , L0004850 , L0004851 , L0004852 , L0004853 ,

L0004854 , L0004855 , L0004856 , L0004857 , L0004858 , L0004859 , L0004860 , L0004861 ,

L0004862 , L0004863 , L0004864 , L0004865 , L0004866 , L0004867 , L0004868 , L0004869 ,

L0004870 , L0004871 , L0004872 , L0004873 , L0004874 , L0004875 , L0004876 , L0004877 ,

L0004878 , L0004879 , L0004880 , L0004881 , L0004882 , L0004883 , L0004884 , L0004885 ,

L0004886 , L0004887 , L0004888 , L0004889 , L0004890 , L0004891 , L0004892 , L0004893 ,

L0004894 , L0004895 , L0004896 , L0004897 , L0004898 , L0004899 , L0004900 , L0004901 ,

L0004902 , L0004903 , L0004904 , L0004905 , L0004906 , L0004907 , L0004908 , L0004909 ,

L0004910 , L0004911 , L0004912 , L0004913 , L0004914 , L0004915 , L0004916 , L0004917 ,

L0004918 , L0004919 , L0004920 , L0004921 , L0004922 , L0004923 , L0004924 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
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L0004926 , L0004927 , L0004928 , L0004929 , L0004930 , L0004931 , L0004932 , L0004933 ,

L0004934 , L0004935 , L0004936 , L0004937 , L0004938 , L0004939 , L0004940 , L0004941 ,

L0004942 , L0004943 , L0004944 , L0004945 , L0004946 , L0004947 , L0004948 , L0004949 ,

L0004950 , L0004951 , L0004952 , L0004953 , L0004954 , L0004955 , L0004956 , L0004957 ,

L0004958 , L0004959 , L0004960 , L0004961 , L0004962 , L0004963 , L0004964 , L0004965 ,

L0004966 , L0004967 , L0004968 , L0004969 , L0004970 , L0004971 , L0004972 , L0004973 ,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0004974 , L0004975 , L0004976 , L0004977 , L0004978 , L0004979 , L0004980 , L0004981 ,

L0004982 , L0004983 , L0004984 , L0004985 , L0004986 , L0004987 , L0004988 , L0004989 ,

L0004990 , L0004991 , L0004992 , L0004993 , L0004994 , L0004995 , L0004996 , L0004997 ,

L0004998 , L0004999 , L0005000 , L0005001 , L0005002 , L0005003 , L0005004 , L0005005 ,

L0005006 , L0005007 , L0005008 , L0005009 , L0005010 , L0005011 , L0005012 , L0005013 ,

L0005014 , L0005015 , L0005016 , L0005017 , L0005018 , L0005019 , L0005020 , L0005021 ,

L0005022 , L0005023 , L0005024 , L0005025 , L0005026 , L0005027 , L0005028 , L0005029 ,

L0005030 , L0005031 , L0005032 , L0005033 , L0005034 , L0005035 , L0005036 , L0005037 ,

L0005038 , L0005039 , L0005040 , L0005041 , L0005042 , L0005043 , L0005044 , L0005045 ,

L0005046 , L0005047 , L0005048 , L0005049 , L0005050 , L0005051 , L0005052 , L0005053 ,

L0005054 , L0005055 , L0005056 , L0005057 , L0005058 , L0005059 , L0005060 , L0005061 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
L0005062 , L0005063 , L0005064 , L0005065 , L0005066 , L0005067 , L0005068 , L0005069 ,
L0005070 , L0005071 , L0005072 , L0005073 , L0005074 , L0005075 , L0005076 , L0005077 ,
L0005078 , L0005079 , L0005080 , L0005081 , L0005082 , L0005083 , L0005084 , L0005085 ,
L0005086 , L0005087 , L0005088 , L0005089 , L0005090 , L0005091 , L0005092 , L0005093 ,
L0005094 , L0005095 , L0005096 , L0005097 , L0005098 , L0005099 , L0005100 , L0005101 ,
L0005102 , L0005103 , L0005104 , L0005105 , L0005106 , L0005107 , L0005108 , L0005109 ,
L0005110 , L0005111 , L0005112 , L0005113 , L0005114 , L0005115 , L0005116 , L0005117 ,
L0005118 , L0005119 , L0005120 , L0005121 , L0005122 , L0005123 , L0005124 , L0005125 ,
L0005126 , L0005127 , L0005128 , L0005129 , L0005130 , L0005131 , L0005132 , L0005133 ,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0005134 , L0005135 , L0005136 , L0005137 , L0005138 , L0005139 , L0005140 , L0005141 ,
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L0005150 , L0005151 , L0005152 , L0005153 , L0005154 , L0005155 , L0005156 , L0005157 ,
L0005158 , L0005159 , L0005160 , L0005161 , L0005162 , L0005163 , L0005164 , L0005165 ,
L0005166 , L0005167 , L0005168 , L0005169 , L0005170 , L0005171 , L0005172 , L0005173 ,
L0005174 , L0005175 , L0005176 , L0005177 , L0005178 , L0005179 , L0005180 , L0005181 ,
L0005182 , L0005183 , L0005184 , L0005185 , L0005186 , L0005187 , L0005188 , L0005189 ,
L0005190 , L0005191 , L0005192 , L0005193 , L0005194 , L0005195 , L0005196 , L0005197 ,
L0005198 , L0005199 , L0005200 , L0005201 , L0005202 , L0005203 , L0005204 , L0005205 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0005206 , L0005207 , L0005208 , L0005209 , L0005210 , L0005211 , L0005212 , L0005213 ,
L0005214 , L0005215 , L0005216 , L0005217 , L0005218 , L0005219 , L0005220 , L0005221 ,
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L0005270 , L0005271 , L0005272 , L0005273 , L0005274 , L0005275 , L0005276 , L0005277 ,
L0005278 , L0005279 , L0005280 , L0005281 , L0005282 , L0005283 , L0005284 , L0005285 ,
L0005286 , L0005287 , L0005288 , L0005289 , L0005290 , L0005291 , L0005292 , L0005293 ,

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0005294 , L0005295 , L0005296 , L0005297 , L0005298 , L0005299 , L0005300 , L0005301 ,
L0005302 , L0005303 , L0005304 , L0005305 , L0005306 , L0005307 , L0005308 , L0005309 ,
L0005310 , L0005311 , L0005312 , L0005313 , L0005314 , L0005315 , L0005316 , L0005317 ,
L0005318 , L0005319 , L0005320 , L0005321 , L0005322 , L0005323 , L0005324 , L0005325 ,
L0005326 , L0005327 , L0005328 , L0005329 , L0005330 , L0005331 , L0005332 , L0005333 ,
L0005334 , L0005335 , L0005336 , L0005337 , L0005338 , L0005339 , L0005340 , L0005341 ,
L0005342 , L0005343 , L0005344 , L0005345 , L0005346 , L0005347 , L0005348 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
L0005349 ,
L0005350 , L0005351 , L0005352 , L0005353 , L0005354 , L0005355 , L0005356 , L0005357 ,
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L0005366 , L0005367 , L0005368 , L0005369 , L0005370 , L0005371 , L0005372 , L0005373 ,
L0005374 , L0005375 , L0005376 , L0005377 , L0005378 , L0005379 , L0005380 , L0005381 ,
L0005382 , L0005383 , L0005384 , L0005385 , L0005386 , L0005387 , L0005388 , L0005389 ,
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L0005398 , L0005399 , L0005400 , L0005401 , L0005402 , L0005403 , L0005404 , L0005405 ,
L0005406 , L0005407 , L0005408 , L0005409 , L0005410 , L0005411 , L0005412 , L0005413 ,
L0005414 , L0005415 , L0005416 , L0005417 , L0005418 , L0005419 , L0005420 , L0005421 ,
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L0005438 , L0005439 , L0005440 , L0005441 , L0005442 , L0005443 , L0005444 , L0005445 ,
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♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0005454 , L0005455 , L0005456 , L0005457 , L0005458 , L0005459 , L0005460 , L0005461 ,
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L0005470 , L0005471 , L0005472 , L0005473 , L0005474 , L0005475 , L0005476 , L0005477 ,
L0005478 , L0005479 , L0005480 , L0005481 , L0005482 , L0005483 , L0005484 , L0005485 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
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             L0005494    , L0005495    , L0005496    , L0005497    , L0005498    , L0005499    , L0005500    ,
L0005501    ,
             L0005502    , L0005503    , L0005504    , L0005505    , L0005506    , L0005507    , L0005508    ,
L0005509    ,
             L0005510    , L0005511    , L0005512    , L0005513    , L0005514    , L0005515    , L0005516    ,
L0005517    ,
             L0005518    , L0005519    , L0005520    , L0005521    , L0005522    , L0005523    , L0005524    ,
L0005525    ,
             L0005526    , L0005527    , L0005528    , L0005529    , L0005530    , L0005531    , L0005532    ,
L0005533    ,
             L0005534    , L0005535    , L0005536    , L0005537    , L0005538    , L0005539    , L0005540    ,
L0005541    ,
             L0005542    , L0005543    , L0005544    , L0005545    , L0005546    , L0005547    , L0005548    ,
L0005549    ,
             L0005550    , L0005551    , L0005552    , L0005553    , L0005554    , L0005555    , L0005556    ,
L0005557    ,
             L0005558    , L0005559    , L0005560    , L0005561    , L0005562    , L0005563    , L0005564    ,
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             L0005566    , L0005567    , L0005568    , L0005569    , L0005570    , L0005571    , L0005572    ,
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             L0005582    , L0005583    , L0005584    , L0005585    , L0005586    , L0005587    , L0005588    ,
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L0005605    ,
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L0005613    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE  52
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                      *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                SOURCE IDs
  --------   ---------                                ----------

             L0005614    , L0005615    , L0005616    , L0005617    , L0005618    , L0005619    , L0005620    ,
L0005621    ,
             L0005622    , L0005623    , L0005624    , L0005625    , L0005626    , L0005627    , L0005628    ,
L0005629    ,
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Residential

L0005630 , L0005631 , L0005632 , L0005633 , L0005634 , L0005635 , L0005636 , L0005637 ,
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L0005670 , L0005671 , L0005672 , L0005673 , L0005674 , L0005675 , L0005676 , L0005677 ,
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L0005734 , L0005735 , L0005736 , L0005737 , L0005738 , L0005739 , L0005740 , L0005741 ,
L0005742 , L0005743 , L0005744 , L0005745 , L0005746 , L0005747 , L0005748 , L0005749 ,
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♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0005774 , L0005775 , L0005776 , L0005777 , L0005778 , L0005779 , L0005780 , L0005781 ,

L0005782 , L0005783 , L0005784 , L0005785 , L0005786 , L0005787 , L0005788 , L0005789 ,

L0005790 , L0005791 , L0005792 , L0005793 , L0005794 , L0005795 , L0005796 , L0005797 ,

L0005798 , L0005799 , L0005800 , L0005801 , L0005802 , L0005803 , L0005804 , STCK1 ,

STCK2 , STCK3 , STCK4 ,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004494 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004495 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004496 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004497 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004498     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE  55
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004499     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004500     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004501     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Residential

SOURCE ID = L0004502 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004503 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004504 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004505 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004506 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0004507 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004508 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004512 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004513 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004517 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004518 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0004521 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004522 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004523 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004524 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004525 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004526     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004527     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004528     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:11:49

   PAGE  61
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004529     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004530     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004531 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004532 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004533 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004536 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004537 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004538 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
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Residential

SOURCE ID = L0004540 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004541 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004542 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004543 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004544 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004545 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004546 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004547 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004548 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004550 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004551 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004552 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004553 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

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Residential

SOURCE ID = L0004554 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004555 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004556 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004557 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004558 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

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SOURCE ID = L0004559 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004560 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004561 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004562 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004563 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

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HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004564 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004565 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004566 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004567 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004568 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004569 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004570 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004571 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004572 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004573 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004574 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004575 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004576 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004577 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004578 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004579 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004580 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004581 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004582 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004583 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004584 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004585 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004586 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004587 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004588 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0004598 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004599 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004600 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004601 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004602 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                  Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004603     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE  76
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004604     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004605     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004606     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004607     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
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Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004608 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004613 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

Residential

SOURCE ID = L0004617 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004618 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004619 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004620 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004621 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004622 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004623 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004627 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004628 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004629 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004630 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0004631 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004632 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004633 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004634 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004635 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0004636 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004637 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004638 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004639 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004640 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004641 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004642 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004643 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
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Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004646 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004647 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004648 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0004650 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004651 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004652 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004653 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004654 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004655 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004656 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004657 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004658 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004659 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12

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Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004660 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004661 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004662 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004663 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004665 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004666 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004667 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004668 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

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Residential

SOURCE ID = L0004669 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004670 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004671 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004672 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004673 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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Residential
* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004679 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004680 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004681 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004682 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004683 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004684 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004685 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004686 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004687 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004688 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004689 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004690 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004691 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004692 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004693 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004694 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004695 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004696 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004697 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004698 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0004708 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004709 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004710 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004711 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004712 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0004713 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004718 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004723 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0004727 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004728 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004729 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004730 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004731 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004732 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004733 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004737 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004738 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004742 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004743 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004744 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004745 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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Residential

SOURCE ID = L0004746 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004747 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004748 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004749 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004750 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004751 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004752 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004753 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004756 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004757 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004758 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0004760 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004761 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004762 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004763 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004764 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0004765 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004766 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004767 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004768 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

```
                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004770     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004771     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004772     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004773     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:11:49

   PAGE 110
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004774     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.00000E+00

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004775 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004776 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004777 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004778 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***

06/30/16

*** AERMET - VERSION 14134 *** *** ***

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

SOURCE ID = L0004779 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004780 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004781 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004782 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004783 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

- - - -

```
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004789     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004790     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004791     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004792     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004793     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 114
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004794 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004795 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004796 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004797 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004798 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004799 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004800 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004801 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004802 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004803 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004804 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004805 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004806 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004807 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004808 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004809 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004810 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004811 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004812 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004813 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
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Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

PAGE 119
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

SOURCE ID = L0004823 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004824 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004825 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004826 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004827 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004828 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

PAGE 121
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

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                                                Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004833     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 122
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004834     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004835     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004836     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Residential

SOURCE ID = L0004837 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004838 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004839 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004840 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004841 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0004842 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004843 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004844 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004845 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004846 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004847     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004848     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 125
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004849     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004850     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004851     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004852 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004853 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0004856 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004857 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004858 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004859 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004860 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004861     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004862     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004863     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 128
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004864     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004865     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004866 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004867 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004868 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004871 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004872 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004873 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

```
 SOURCE ID = L0004875     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004876     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004877     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004878     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 131
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004879     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004880 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004881 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004882 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004883 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004885     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004886     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004887     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004888     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 133
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

Residential

SOURCE ID = L0004889 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004890 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004891 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004892 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004893 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

- - - - - - - -

SOURCE ID = L0004894 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004895 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004896 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004897 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004898 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

PAGE 135
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004899 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004900 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004901 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004902 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004903 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004904 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004905 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004906 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004907 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004908 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

PAGE 137
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004909 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004910 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004911 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004912 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004913 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004914 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004915 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004916 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004917 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004918 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004919 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004920 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004921 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004922 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004923 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 140
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004924     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004925     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004926     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004927     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004928     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Residential

```
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 141
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004929     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004930     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004931     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004932     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

SOURCE ID = L0004933 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004934 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004935 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004936 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004937 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                    Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004938     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 143
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004939     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004940     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004941     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004942     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

Residential
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004943 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004948 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

Residential

SOURCE ID = L0004952 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004953 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004954 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004955 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004956 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004957 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004958 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004962 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004963 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004964 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004965 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0004966 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004967 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004968 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004969 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004970 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0004971 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004972 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004973 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004976 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004977 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004978 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004981 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004982 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004983 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0004985 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004986 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004987 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004988 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004989 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004990 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004991 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004992 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004993 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004994 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004995 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004996 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004997 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004998 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005000 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005001 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005002 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005003 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0005004 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005005 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005006 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005007 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005008 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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Residential
* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005014 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005015 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005016 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005017 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005018 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005019 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005020 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005021 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005022 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005023 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005024 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005025 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005026 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005027 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005028 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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*** AERMET - VERSION 14134 *** *** ***
13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005029 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005030 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005031 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005032 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005033 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005039 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005040 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005041 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005042 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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Residential

SOURCE ID = L0005043 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005044 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005045 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005046 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005047 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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Residential
.00000E+00

SOURCE ID = L0005048 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005049 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005050 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005051 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005052 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005053 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

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Residential
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005058 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0005062 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005063 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005064 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005065 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005066 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005067 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005068 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005072 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005073 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005077 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005078 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005079 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005080 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0005081 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005082 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005083 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005084 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005085 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005086 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005087 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005088 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005091 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005092 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005093 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

PAGE 174
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0005095 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005096 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005097 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005098 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

PAGE 175
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005099 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005100 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005101 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005102 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005103 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

```
                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005105     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005106     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005107     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005108     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:11:49

   PAGE 177
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005109     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005110 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005111 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005112 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005113 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

SOURCE ID = L0005114 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005115 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005116 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005117 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005118 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

SOURCE ID = L0005119 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005120 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005121 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005122 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005123 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

```
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005124     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005125     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005126     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005127     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005128     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005129 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005130 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005131 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005132 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005133 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005134 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005135 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005136 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005137 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005138 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005139 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005140 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005141 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005142 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005143 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005144 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005145 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005146 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005147 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005148 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

SOURCE ID = L0005158 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005159 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005160 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005161 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005162 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005163 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005168 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0005172 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005173 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005174 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005175 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005176 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005177 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005178 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005182 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005183 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005187 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005188 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0005191 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005192 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005193 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005194 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005195 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005196     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005197     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005198     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 195
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005199     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005200     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005201 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005202 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005203 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005206 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005207 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005208 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005209 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Residential

SOURCE ID = L0005210 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005211 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005212 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005213 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005214 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005215 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005216 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005217 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005218 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

```
                                                Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005220     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005221     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005222     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005223     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                        ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
   13:11:49

   PAGE 200
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

Residential

SOURCE ID = L0005224 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005225 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005226 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005227 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005228 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

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SOURCE ID = L0005229 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005230 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005231 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005232 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005233 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005234 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005235 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005236 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005237 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005238 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005239 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005240 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005241 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005242 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005243 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005244 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005245 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005246 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005247 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005248 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005249 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005250 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005251 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005252 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005253 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005254 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005255 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005256 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005257 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005258 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

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Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

SOURCE ID = L0005268 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005269 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005270 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005271 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005272 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005273     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 210
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005274     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005275     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005276     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005277     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005278 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005283 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

Residential

SOURCE ID = L0005287 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005288 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005289 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005290 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005291 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005292 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005293 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005297 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005298 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0005301 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005302 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005303 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005304 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005305 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005306 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005307 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005308 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005309 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005310 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005311 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005312 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005313 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005314 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005315 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005316 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005317 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005318 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0005320 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005321 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005322 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005323 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005324 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005325 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005326 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005327 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005328 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005329 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005330 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005331 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005332 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005333 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005335 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005336 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005337 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005338 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Residential

SOURCE ID = L0005339 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005340 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005341 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005342 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005343 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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Residential
* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005349 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005350 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005351 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005352 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005353 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005354 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005355 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005356 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005357 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005358 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005359 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005360 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005361 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005362 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005363 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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06/30/16
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005364 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005365 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005366 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005367 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005368 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005374 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005375 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005376 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005377 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0005378 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005379 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005380 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005381 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005382 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005383 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005384 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005385 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005386 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005387 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005388 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005393 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0005397 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005398 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005399 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005400 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005401 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005402 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005403 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005404 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005405 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005406 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005407 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005408 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005412 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005413 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005414 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005415 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0005416 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005417 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005418 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005419 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005420 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005421 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005422 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005423 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005426     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005427     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005428     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:11:49

   PAGE 241
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005429     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Residential

SOURCE ID = L0005430 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005431 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005432 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005433 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005434 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005435 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005436 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005437 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005438 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

```
                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005440     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005441     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005442     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005443     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:11:49

   PAGE 244
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005444     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005445 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005446 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005447 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005448 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

SOURCE ID = L0005449 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005450 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005451 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005452 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005453 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

- - - -

Residential

```
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005459     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005460     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005461     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005462     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005463     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 248
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005464 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005465 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005466 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005467 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005468 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005469 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005470 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005471 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005472 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005473 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005474 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005475 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005476 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005477 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005478 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005479 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005480 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005481 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005482 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005483 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

SOURCE ID = L0005493 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005494 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005495 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005496 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005497 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005498 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

```
                                                Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005503     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 256
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005504     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005505     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005506     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Residential

SOURCE ID = L0005507 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005508 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005509 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005510 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005511 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005512 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005513 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005514 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005515 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005516 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005517     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005518     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 259
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005519     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005520     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005521     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005522 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005523 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0005526 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005527 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005528 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005529 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005530 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005531 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005532 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005533 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005536 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005537 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005538 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005541 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005542 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005543 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

Residential

SOURCE ID = L0005545 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005546 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005547 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005548 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005549 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005550     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005551     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005552     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005553     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:11:49

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 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005554     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

Residential
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005555 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005556 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005557 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005558 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0005559 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005560 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005561 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005562 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005563 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

- - - - - - - -

SOURCE ID = L0005564 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005565 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005566 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005567 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005568 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005569 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005570 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005571 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005572 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005573 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

Residential

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005574 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005575 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005576 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005577 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005578 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005579 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005580 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005581 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005582 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005583 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005584 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005585 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005586 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005587 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005588 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005589 ; SOURCE TYPE = VOLUME :												
	1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
	7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
	13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
	19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005590 ; SOURCE TYPE = VOLUME :												
	1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
	7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
	13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
	19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005591 ; SOURCE TYPE = VOLUME :												
	1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
	7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
	13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
	19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005592 ; SOURCE TYPE = VOLUME :												
	1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
	7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
	13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
	19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005593 ; SOURCE TYPE = VOLUME :												
	1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
	7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

```
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 275
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005599     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005600     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005601     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005602     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0005603 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005604 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005605 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005606 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005607 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                    Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005608     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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   PAGE 277
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005609     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005610     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005611     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005612     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

Residential
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005613 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005618 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

Residential

SOURCE ID = L0005622 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005623 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005624 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005625 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005626 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005627 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005628 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005632 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005633 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0005636 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005637 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005638 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005639 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005640 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005641 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005642 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005643 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005644 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005645 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005646 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005647 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005648 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005651 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005652 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005653 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

SOURCE ID = L0005655 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005656 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005657 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005658 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005659 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005660 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005661 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005662 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005663 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005665     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005666     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005667     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005668     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:11:49

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005669     ; SOURCE TYPE = VOLUME   :
```

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005670 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005671 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005672 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005673 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Residential

SOURCE ID = L0005674 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005675 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005676 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005677 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005678 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

- - - -

Residential
* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005684 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005685 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005686 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005687 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005688 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005689 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005690 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005691 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005692 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005693 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005694 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005695 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005696 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005697 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005698 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005699	; SOURCE TYPE = VOLUME	:										
	1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
	7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
	13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
	19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005700	; SOURCE TYPE = VOLUME	:										
	1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
	7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
	13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
	19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005701	; SOURCE TYPE = VOLUME	:										
	1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
	7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
	13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
	19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005702	; SOURCE TYPE = VOLUME	:										
	1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
	7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
	13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
	19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005703	; SOURCE TYPE = VOLUME	:										
	1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
	7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
	13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
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Residential
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0005713 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005714 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005715 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005716 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005717 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005718 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005719 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005720 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005721 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005722 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005723 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

```
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005728     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:11:49

   PAGE 301
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005729     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005730     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005731     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0005732 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005733 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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PAGE 302
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005734 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005735 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005736 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005737 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005738 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005742 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005743 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005747 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005748 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005749 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005750 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0005751 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005752 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005753 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

PAGE 306
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005754 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005755 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005756 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005757 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005758 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

```
                                                Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005761     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005762     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005763     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:11:49

   PAGE 308
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005764     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Residential

SOURCE ID = L0005765 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005766 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005767 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005768 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005769 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005770 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005771 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005772 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005773 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005774 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

```
                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005775     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005776     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005777     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005778     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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   PAGE 311
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005779     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005780 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005781 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005782 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005783 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0005784 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005785 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005786 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005787 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005788 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
13:11:49

PAGE 313
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

- - - -

Residential

```
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005794     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005795     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005796     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005797     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005798     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                        ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005799 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005800 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005801 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005802 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005803 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005804 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = STCK1 ; SOURCE TYPE = POINT :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = STCK2 ; SOURCE TYPE = POINT :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = STCK3 ; SOURCE TYPE = POINT :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = STCK4 ; SOURCE TYPE = POINT :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(478756.5, 3747340.4, 448.0, 448.0, 0.0); (477850.2, 3745739.2, 448.0, 448.0, 0.0);
(477468.3, 3745732.7, 450.0, 450.0, 0.0); (477064.8, 3746275.6, 452.0, 452.0, 0.0);
(476681.9, 3747195.9, 453.0, 453.0, 0.0); (478080.5, 3746730.6, 448.0, 448.0, 0.0);
(478061.2, 3746985.5, 448.0, 448.0, 0.0); (478376.0, 3747009.6, 448.0, 448.0, 0.0);
(478314.2, 3746847.4, 447.2, 447.2, 0.0); (478166.2, 3747511.6, 448.0, 448.0, 0.0);
(478593.6, 3747910.4, 449.0, 449.0, 0.0); (478741.6, 3747610.7, 448.0, 448.0, 0.0);
(478124.1, 3747953.8, 450.0, 450.0, 0.0); (478800.1, 3746766.9, 446.0, 446.0, 0.0);
(476744.0, 3746652.5, 454.0, 454.0, 0.0); (476399.7, 3746690.7, 457.0, 457.0, 0.0);

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1

Residential
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\peri8.sfc Met Version: 14134
Profile file: ..\peri8.PFL
Surface format: FREE

Profile format: FREE

Surface station no.: 0 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2007 Year: 2007

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
07	01	01	1	01	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	133.	9.1	279.9	5.5
07	01	01	1	02	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	192.	9.1	279.2	5.5
07	01	01	1	03	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	160.	9.1	277.5	5.5
07	01	01	1	04	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	75.	9.1	277.5	5.5
07	01	01	1	05	-0.6	0.026	-9.000	-9.000	-999.	10.	2.6	0.19	1.00	1.00	0.50	282.	9.1	278.8	5.5
07	01	01	1	06	-0.6	0.026	-9.000	-9.000	-999.	10.	2.6	0.19	1.00	1.00	0.50	96.	9.1	277.5	5.5
07	01	01	1	07	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	129.	9.1	278.1	5.5
07	01	01	1	08	-0.4	0.026	-9.000	-9.000	-999.	10.	3.7	0.19	1.00	0.54	0.50	99.	9.1	277.5	5.5
07	01	01	1	09	27.8	0.091	0.542	0.005	196.	66.	-2.3	0.19	1.00	0.33	0.50	133.	9.1	278.1	5.5
07	01	01	1	10	76.9	0.104	1.050	0.005	516.	81.	-1.3	0.19	1.00	0.26	0.50	174.	9.1	281.4	5.5
07	01	01	1	11	110.0	0.109	1.374	0.009	810.	87.	-1.0	0.19	1.00	0.23	0.50	95.	9.1	284.9	5.5
07	01	01	1	12	125.7	0.201	1.589	0.018	1095.	216.	-5.5	0.19	1.00	0.22	1.30	94.	9.1	288.1	5.5
07	01	01	1	13	121.7	0.287	1.641	0.022	1248.	369.	-16.6	0.19	1.00	0.22	2.20	24.	9.1	291.4	5.5
07	01	01	1	14	102.8	0.414	1.559	0.021	1265.	639.	-59.1	0.19	1.00	0.23	3.60	13.	9.1	292.5	5.5
07	01	01	1	15	69.9	0.619	1.374	0.021	1276.	1169.	-291.2	0.19	1.00	0.27	5.80	318.	9.1	292.0	5.5
07	01	01	1	16	16.8	0.607	0.856	0.021	1277.	1135.	-1137.8	0.19	1.00	0.36	5.80	329.	9.1	291.4	5.5
07	01	01	1	17	-42.2	0.437	-9.000	-9.000	-999.	720.	169.3	0.19	1.00	0.64	4.50	333.	9.1	289.9	5.5
07	01	01	1	18	-18.5	0.353	-9.000	-9.000	-999.	510.	204.1	0.19	1.00	1.00	3.60	305.	9.1	288.8	5.5
07	01	01	1	19	-42.3	0.437	-9.000	-9.000	-999.	692.	168.7	0.19	1.00	1.00	4.50	276.	9.1	287.5	5.5
07	01	01	1	20	-32.3	0.334	-9.000	-9.000	-999.	470.	98.6	0.19	1.00	1.00	3.60	323.	9.1	287.5	5.5
07	01	01	1	21	-36.7	0.380	-9.000	-9.000	-999.	562.	128.3	0.19	1.00	1.00	4.00	322.	9.1	288.1	5.5
07	01	01	1	22	-45.6	0.434	-9.000	-9.000	-999.	685.	153.6	0.19	1.00	1.00	4.50	30.	9.1	288.1	5.5

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                  Residential
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00   1.00    4.00  343.    9.1  287.0
 5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00   1.00    1.80  155.    9.1  283.8
 5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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   PAGE 320
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5 YEARS FOR SOURCE GROUP: ALL
 ***
                                  INCLUDING SOURCE(S):     L0004494    , L0004495    , L0004496    , L0004497    ,
L0004498    ,
                L0004499    , L0004500    , L0004501    , L0004502    , L0004503    , L0004504    , L0004505    ,
L0004506    ,
                L0004507    , L0004508    , L0004509    , L0004510    , L0004511    , L0004512    , L0004513    ,
L0004514    ,
                L0004515    , L0004516    , L0004517    , L0004518    , L0004519    , L0004520    , L0004521    ,
. . .       ,

                                       *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                    ** CONC OF DPM      IN MICROGRAMS/M**3                          **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
        478756.45    3747340.45        0.00008                    477850.17    3745739.17        0.00008

        477468.29    3745732.72        0.00007                    477064.80    3746275.62        0.00013

        476681.88    3747195.89        0.00006                    478080.50    3746730.56        0.00414

        478061.18    3746985.48        0.00107                    478375.97    3747009.62        0.00033

        478314.17    3746847.40        0.00084                    478166.25    3747511.58        0.00013

        478593.58    3747910.42        0.00006                    478741.65    3747610.66        0.00007

        478124.08    3747953.76        0.00006                    478800.07    3746766.89        0.00010

        476744.03    3746652.46        0.00020                    476399.72    3746690.72        0.00022

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:11:49

   PAGE 321
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   5 YEARS ***

                                   ** CONC OF DPM      IN MICROGRAMS/M**3                          **
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

NETWORK GROUP ID GRID-ID		AVERAGE CONC		RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)					OF TYPE
ALL	1ST HIGHEST VALUE IS	0.00414	AT (	478080.50,	3746730.56,	448.00,	448.00,	0.00)	DC
	2ND HIGHEST VALUE IS	0.00107	AT (	478061.18,	3746985.48,	448.00,	448.00,	0.00)	DC
	3RD HIGHEST VALUE IS	0.00084	AT (	478314.17,	3746847.40,	447.20,	447.20,	0.00)	DC
	4TH HIGHEST VALUE IS	0.00033	AT (	478375.97,	3747009.62,	448.00,	448.00,	0.00)	DC
	5TH HIGHEST VALUE IS	0.00022	AT (	476399.72,	3746690.72,	457.00,	457.00,	0.00)	DC
	6TH HIGHEST VALUE IS	0.00020	AT (	476744.03,	3746652.46,	454.00,	454.00,	0.00)	DC
	7TH HIGHEST VALUE IS	0.00013	AT (	477064.80,	3746275.62,	452.00,	452.00,	0.00)	DC
	8TH HIGHEST VALUE IS	0.00013	AT (	478166.25,	3747511.58,	448.00,	448.00,	0.00)	DC
	9TH HIGHEST VALUE IS	0.00010	AT (	478800.07,	3746766.89,	446.00,	446.00,	0.00)	DC
	10TH HIGHEST VALUE IS	0.00008	AT (	477850.17,	3745739.17,	448.00,	448.00,	0.00)	DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\Worker\Worker.isc *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 13:11:49

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 1895 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 90 Calm Hours Identified

A Total of 1805 Missing Hours Identified (4.12 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** AERMOD Finishes Successfully ***
****

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 6/30/2016
** File: C:\Lakes\AERMOD View\ISCC\School\School.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\ISCC\School\School.isc
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 2100516
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL School.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC 95% Inbound from I-215
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00008135
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 25
** 478284.499, 3746790.113, 447.06, 0.00, 3.95
** 478286.086, 3746354.087, 446.49, 0.00, 3.95
** 477626.120, 3746357.399, 448.48, 0.00, 3.95
** 477477.069, 3746360.711, 449.43, 0.00, 3.95
** 477395.919, 3746386.381, 450.00, 0.00, 3.95
** 477334.642, 3746416.191, 450.00, 0.00, 3.95
** 477300.692, 3746444.345, 450.00, 0.00, 3.95
** 477188.160, 3746523.278, 450.92, 0.00, 3.95
** 477119.104, 3746541.941, 451.00, 0.00, 3.95
** 477040.717, 3746547.540, 451.90, 0.00, 3.95
** 476936.201, 3746549.407, 452.15, 0.00, 3.95
** 476786.893, 3746553.139, 453.59, 0.00, 3.95
** 476747.699, 3746549.407, 454.09, 0.00, 3.95
** 476639.451, 3746547.540, 455.40, 0.00, 3.95
** 476598.391, 3746568.070, 455.87, 0.00, 3.95
** 476555.465, 3746597.932, 456.00, 0.00, 3.95
** 476518.137, 3746633.393, 456.11, 0.00, 3.95
** 476495.741, 3746680.051, 456.06, 0.00, 3.95
** 476465.879, 3746747.240, 456.04, 0.00, 3.95
** 476441.617, 3746844.291, 456.09, 0.00, 3.95
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

```
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** 476260.580, 3746945.074, 457.00, 0.00, 3.95
** 476029.152, 3746948.807, 460.06, 0.00, 3.95
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				Residential
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LOCATION	L0004614	VOLUME	477697.873 3746357.039	448.00
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LOCATION	L0004618	VOLUME	477663.873 3746357.209	448.00
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LOCATION	L0004621	VOLUME	477638.374 3746357.337	448.05

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                                                  Residential
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LOCATION L0004623     VOLUME   477621.375 3746357.504 448.62
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LOCATION L0004629     VOLUME   477570.387 3746358.637 449.00
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LOCATION L0004632     VOLUME   477544.894 3746359.204 449.00
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LOCATION L0004672     VOLUME   477239.457 3746487.297 450.22
LOCATION L0004673     VOLUME   477232.498 3746492.178 450.27
LOCATION L0004674     VOLUME   477225.539 3746497.059 450.25
LOCATION L0004675     VOLUME   477218.580 3746501.940 450.18
LOCATION L0004676     VOLUME   477211.621 3746506.821 450.27
LOCATION L0004677     VOLUME   477204.663 3746511.702 450.51
LOCATION L0004678     VOLUME   477197.704 3746516.583 450.74
LOCATION L0004679     VOLUME   477190.745 3746521.464 450.97
LOCATION L0004680     VOLUME   477183.003 3746524.671 451.00
LOCATION L0004681     VOLUME   477174.797 3746526.889 451.00
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LOCATION L0004683     VOLUME   477158.386 3746531.324 451.00
LOCATION L0004684     VOLUME   477150.180 3746533.542 451.00
LOCATION L0004685     VOLUME   477141.975 3746535.760 451.00
LOCATION L0004686     VOLUME   477133.769 3746537.978 451.00
LOCATION L0004687     VOLUME   477125.564 3746540.195 451.00
LOCATION L0004688     VOLUME   477117.300 3746542.070 451.00
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Residential

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LOCATION	L0004693	VOLUME	477074.908	3746545.098	451.00
LOCATION	L0004694	VOLUME	477066.429	3746545.704	451.08
LOCATION	L0004695	VOLUME	477057.951	3746546.309	451.26
LOCATION	L0004696	VOLUME	477049.473	3746546.915	451.44
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LOCATION	L0004701	VOLUME	477007.000	3746548.142	452.00
LOCATION	L0004702	VOLUME	476998.502	3746548.294	452.00
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LOCATION	L0004716	VOLUME	476879.529	3746550.823	452.68
LOCATION	L0004717	VOLUME	476871.032	3746551.036	452.82
LOCATION	L0004718	VOLUME	476862.535	3746551.248	452.96
LOCATION	L0004719	VOLUME	476854.037	3746551.461	453.00
LOCATION	L0004720	VOLUME	476845.540	3746551.673	453.00
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LOCATION	L0004726	VOLUME	476794.556	3746552.948	453.00
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LOCATION	L0004729	VOLUME	476769.139	3746551.448	454.00
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LOCATION	L0004749	VOLUME	476603.496	3746565.518	455.56
LOCATION	L0004750	VOLUME	476596.098	3746569.665	455.79
LOCATION	L0004751	VOLUME	476589.121	3746574.519	456.00
LOCATION	L0004752	VOLUME	476582.143	3746579.373	456.00
LOCATION	L0004753	VOLUME	476575.165	3746584.227	456.00
LOCATION	L0004754	VOLUME	476568.188	3746589.081	456.00
LOCATION	L0004755	VOLUME	476561.210	3746593.935	456.00

Residential

LOCATION	L0004756	VOLUME	476554.376	3746598.966	456.00
LOCATION	L0004757	VOLUME	476548.214	3746604.820	456.00
LOCATION	L0004758	VOLUME	476542.051	3746610.675	456.00
LOCATION	L0004759	VOLUME	476535.889	3746616.529	456.00
LOCATION	L0004760	VOLUME	476529.726	3746622.383	456.00
LOCATION	L0004761	VOLUME	476523.564	3746628.238	456.00
LOCATION	L0004762	VOLUME	476517.698	3746634.308	456.00
LOCATION	L0004763	VOLUME	476514.020	3746641.971	456.00
LOCATION	L0004764	VOLUME	476510.342	3746649.634	456.00
LOCATION	L0004765	VOLUME	476506.663	3746657.297	456.00
LOCATION	L0004766	VOLUME	476502.985	3746664.960	456.00
LOCATION	L0004767	VOLUME	476499.307	3746672.623	456.02
LOCATION	L0004768	VOLUME	476495.636	3746680.289	456.14
LOCATION	L0004769	VOLUME	476492.183	3746688.056	456.26
LOCATION	L0004770	VOLUME	476488.731	3746695.824	456.37
LOCATION	L0004771	VOLUME	476485.279	3746703.591	456.49
LOCATION	L0004772	VOLUME	476481.827	3746711.359	456.60
LOCATION	L0004773	VOLUME	476478.375	3746719.126	456.65
LOCATION	L0004774	VOLUME	476474.923	3746726.893	456.53
LOCATION	L0004775	VOLUME	476471.470	3746734.661	456.36
LOCATION	L0004776	VOLUME	476468.018	3746742.428	456.18
LOCATION	L0004777	VOLUME	476465.095	3746750.378	456.16
LOCATION	L0004778	VOLUME	476463.034	3746758.624	456.23
LOCATION	L0004779	VOLUME	476460.972	3746766.870	456.30
LOCATION	L0004780	VOLUME	476458.910	3746775.116	456.36
LOCATION	L0004781	VOLUME	476456.849	3746783.363	456.43
LOCATION	L0004782	VOLUME	476454.787	3746791.609	456.50
LOCATION	L0004783	VOLUME	476452.726	3746799.855	456.57
LOCATION	L0004784	VOLUME	476450.664	3746808.101	456.60
LOCATION	L0004785	VOLUME	476448.603	3746816.347	456.47
LOCATION	L0004786	VOLUME	476446.541	3746824.594	456.30
LOCATION	L0004787	VOLUME	476444.480	3746832.840	456.10
LOCATION	L0004788	VOLUME	476442.418	3746841.086	456.00
LOCATION	L0004789	VOLUME	476438.235	3746848.236	456.05
LOCATION	L0004790	VOLUME	476432.703	3746854.690	456.24
LOCATION	L0004791	VOLUME	476427.172	3746861.144	456.42
LOCATION	L0004792	VOLUME	476421.640	3746867.597	456.58
LOCATION	L0004793	VOLUME	476416.108	3746874.051	456.58
LOCATION	L0004794	VOLUME	476410.576	3746880.505	456.51
LOCATION	L0004795	VOLUME	476405.045	3746886.959	456.42
LOCATION	L0004796	VOLUME	476399.513	3746893.412	456.41
LOCATION	L0004797	VOLUME	476393.483	3746899.363	456.49
LOCATION	L0004798	VOLUME	476386.981	3746904.838	456.54
LOCATION	L0004799	VOLUME	476380.479	3746910.313	456.52
LOCATION	L0004800	VOLUME	476373.977	3746915.788	456.48
LOCATION	L0004801	VOLUME	476367.476	3746921.264	456.51
LOCATION	L0004802	VOLUME	476360.872	3746926.545	456.63
LOCATION	L0004803	VOLUME	476352.672	3746928.781	456.83
LOCATION	L0004804	VOLUME	476344.471	3746931.018	456.87
LOCATION	L0004805	VOLUME	476336.271	3746933.254	456.87
LOCATION	L0004806	VOLUME	476328.070	3746935.491	456.92
LOCATION	L0004807	VOLUME	476319.857	3746937.665	457.00
LOCATION	L0004808	VOLUME	476311.423	3746938.719	457.00
LOCATION	L0004809	VOLUME	476302.988	3746939.773	457.00
LOCATION	L0004810	VOLUME	476294.554	3746940.827	457.00
LOCATION	L0004811	VOLUME	476286.120	3746941.882	457.00
LOCATION	L0004812	VOLUME	476277.685	3746942.936	457.00
LOCATION	L0004813	VOLUME	476269.251	3746943.990	457.00
LOCATION	L0004814	VOLUME	476260.817	3746945.045	457.00
LOCATION	L0004815	VOLUME	476252.320	3746945.207	457.00
LOCATION	L0004816	VOLUME	476243.821	3746945.344	457.00
LOCATION	L0004817	VOLUME	476235.322	3746945.482	457.00
LOCATION	L0004818	VOLUME	476226.823	3746945.619	457.04
LOCATION	L0004819	VOLUME	476218.324	3746945.756	457.13
LOCATION	L0004820	VOLUME	476209.825	3746945.893	457.23
LOCATION	L0004821	VOLUME	476201.326	3746946.030	457.32
LOCATION	L0004822	VOLUME	476192.827	3746946.167	457.49

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                                                    Residential
   LOCATION L0004823     VOLUME   476184.328 3746946.304 457.68
   LOCATION L0004824     VOLUME   476175.830 3746946.441 457.87
   LOCATION L0004825     VOLUME   476167.331 3746946.578 458.00
   LOCATION L0004826     VOLUME   476158.832 3746946.715 458.00
   LOCATION L0004827     VOLUME   476150.333 3746946.852 458.00
   LOCATION L0004828     VOLUME   476141.834 3746946.989 458.00
   LOCATION L0004829     VOLUME   476133.335 3746947.127 458.22
   LOCATION L0004830     VOLUME   476124.836 3746947.264 458.50
   LOCATION L0004831     VOLUME   476116.337 3746947.401 458.78
   LOCATION L0004832     VOLUME   476107.838 3746947.538 459.00
   LOCATION L0004833     VOLUME   476099.339 3746947.675 459.00
   LOCATION L0004834     VOLUME   476090.841 3746947.812 459.00
   LOCATION L0004835     VOLUME   476082.342 3746947.949 459.00
   LOCATION L0004836     VOLUME   476073.843 3746948.086 459.20
   LOCATION L0004837     VOLUME   476065.344 3746948.223 459.48
   LOCATION L0004838     VOLUME   476056.845 3746948.360 459.77
   LOCATION L0004839     VOLUME   476048.346 3746948.497 460.00
   LOCATION L0004840     VOLUME   476039.847 3746948.634 460.00
   LOCATION L0004841     VOLUME   476031.348 3746948.771 460.00
** End of LINE VOLUME Source ID = SLINE1
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC 90% Outbound to I-215
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00007707
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 25
** 478284.499, 3746790.113, 447.06, 0.00, 3.95
** 478286.086, 3746354.087, 446.49, 0.00, 3.95
** 477626.120, 3746357.399, 448.48, 0.00, 3.95
** 477477.069, 3746360.711, 449.43, 0.00, 3.95
** 477395.919, 3746386.381, 450.00, 0.00, 3.95
** 477334.642, 3746416.191, 450.00, 0.00, 3.95
** 477300.692, 3746444.345, 450.00, 0.00, 3.95
** 477188.160, 3746523.278, 450.92, 0.00, 3.95
** 477119.104, 3746541.941, 451.00, 0.00, 3.95
** 477040.717, 3746547.540, 451.90, 0.00, 3.95
** 476936.201, 3746549.407, 452.15, 0.00, 3.95
** 476786.893, 3746553.139, 453.59, 0.00, 3.95
** 476747.699, 3746549.407, 454.09, 0.00, 3.95
** 476639.451, 3746547.540, 455.40, 0.00, 3.95
** 476598.391, 3746568.070, 455.87, 0.00, 3.95
** 476555.465, 3746597.932, 456.00, 0.00, 3.95
** 476518.137, 3746633.393, 456.11, 0.00, 3.95
** 476495.741, 3746680.051, 456.06, 0.00, 3.95
** 476465.879, 3746747.240, 456.04, 0.00, 3.95
** 476441.617, 3746844.291, 456.09, 0.00, 3.95
** 476396.824, 3746896.549, 456.44, 0.00, 3.95
** 476361.364, 3746926.411, 456.75, 0.00, 3.95
** 476320.304, 3746937.609, 457.00, 0.00, 3.95
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   LOCATION L0004845     VOLUME   478284.608 3746760.363 447.00
   LOCATION L0004846     VOLUME   478284.638 3746751.864 447.00
   LOCATION L0004847     VOLUME   478284.669 3746743.364 447.00
   LOCATION L0004848     VOLUME   478284.700 3746734.864 447.00
   LOCATION L0004849     VOLUME   478284.731 3746726.364 447.00
   LOCATION L0004850     VOLUME   478284.762 3746717.864 447.00
   LOCATION L0004851     VOLUME   478284.793 3746709.364 447.00
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Residential

LOCATION	L0004852	VOLUME	478284.824	3746700.864 447.00
LOCATION	L0004853	VOLUME	478284.855	3746692.364 447.00
LOCATION	L0004854	VOLUME	478284.886	3746683.864 447.00
LOCATION	L0004855	VOLUME	478284.917	3746675.364 447.00
LOCATION	L0004856	VOLUME	478284.948	3746666.864 447.00
LOCATION	L0004857	VOLUME	478284.979	3746658.364 447.00
LOCATION	L0004858	VOLUME	478285.010	3746649.864 447.00
LOCATION	L0004859	VOLUME	478285.040	3746641.364 447.00
LOCATION	L0004860	VOLUME	478285.071	3746632.864 447.00
LOCATION	L0004861	VOLUME	478285.102	3746624.364 447.00
LOCATION	L0004862	VOLUME	478285.133	3746615.864 447.00
LOCATION	L0004863	VOLUME	478285.164	3746607.364 447.00
LOCATION	L0004864	VOLUME	478285.195	3746598.865 447.00
LOCATION	L0004865	VOLUME	478285.226	3746590.365 447.00
LOCATION	L0004866	VOLUME	478285.257	3746581.865 447.00
LOCATION	L0004867	VOLUME	478285.288	3746573.365 447.00
LOCATION	L0004868	VOLUME	478285.319	3746564.865 447.00
LOCATION	L0004869	VOLUME	478285.350	3746556.365 447.00
LOCATION	L0004870	VOLUME	478285.381	3746547.865 447.00
LOCATION	L0004871	VOLUME	478285.412	3746539.365 447.00
LOCATION	L0004872	VOLUME	478285.443	3746530.865 447.00
LOCATION	L0004873	VOLUME	478285.473	3746522.365 447.00
LOCATION	L0004874	VOLUME	478285.504	3746513.865 447.00
LOCATION	L0004875	VOLUME	478285.535	3746505.365 447.00
LOCATION	L0004876	VOLUME	478285.566	3746496.865 447.00
LOCATION	L0004877	VOLUME	478285.597	3746488.365 447.00
LOCATION	L0004878	VOLUME	478285.628	3746479.865 447.00
LOCATION	L0004879	VOLUME	478285.659	3746471.365 447.00
LOCATION	L0004880	VOLUME	478285.690	3746462.865 447.00
LOCATION	L0004881	VOLUME	478285.721	3746454.366 447.00
LOCATION	L0004882	VOLUME	478285.752	3746445.866 446.99
LOCATION	L0004883	VOLUME	478285.783	3746437.366 446.84
LOCATION	L0004884	VOLUME	478285.814	3746428.866 446.69
LOCATION	L0004885	VOLUME	478285.845	3746420.366 446.54
LOCATION	L0004886	VOLUME	478285.875	3746411.866 446.47
LOCATION	L0004887	VOLUME	478285.906	3746403.366 446.47
LOCATION	L0004888	VOLUME	478285.937	3746394.866 446.47
LOCATION	L0004889	VOLUME	478285.968	3746386.366 446.46
LOCATION	L0004890	VOLUME	478285.999	3746377.866 446.46
LOCATION	L0004891	VOLUME	478286.030	3746369.366 446.46
LOCATION	L0004892	VOLUME	478286.061	3746360.866 446.46
LOCATION	L0004893	VOLUME	478284.365	3746354.095 446.52
LOCATION	L0004894	VOLUME	478275.866	3746354.138 446.80
LOCATION	L0004895	VOLUME	478267.366	3746354.180 447.00
LOCATION	L0004896	VOLUME	478258.866	3746354.223 447.00
LOCATION	L0004897	VOLUME	478250.366	3746354.266 447.00
LOCATION	L0004898	VOLUME	478241.866	3746354.308 447.00
LOCATION	L0004899	VOLUME	478233.366	3746354.351 447.00
LOCATION	L0004900	VOLUME	478224.866	3746354.394 447.00
LOCATION	L0004901	VOLUME	478216.366	3746354.436 447.00
LOCATION	L0004902	VOLUME	478207.866	3746354.479 447.00
LOCATION	L0004903	VOLUME	478199.366	3746354.522 447.00
LOCATION	L0004904	VOLUME	478190.867	3746354.564 447.00
LOCATION	L0004905	VOLUME	478182.367	3746354.607 447.00
LOCATION	L0004906	VOLUME	478173.867	3746354.650 447.00
LOCATION	L0004907	VOLUME	478165.367	3746354.692 447.00
LOCATION	L0004908	VOLUME	478156.867	3746354.735 447.00
LOCATION	L0004909	VOLUME	478148.367	3746354.778 447.00
LOCATION	L0004910	VOLUME	478139.867	3746354.820 447.00
LOCATION	L0004911	VOLUME	478131.367	3746354.863 447.00
LOCATION	L0004912	VOLUME	478122.867	3746354.906 447.00
LOCATION	L0004913	VOLUME	478114.368	3746354.948 447.00
LOCATION	L0004914	VOLUME	478105.868	3746354.991 447.00
LOCATION	L0004915	VOLUME	478097.368	3746355.034 447.00
LOCATION	L0004916	VOLUME	478088.868	3746355.076 447.00
LOCATION	L0004917	VOLUME	478080.368	3746355.119 447.00
LOCATION	L0004918	VOLUME	478071.868	3746355.162 447.00

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                                                Residential
LOCATION L0004919     VOLUME   478063.368 3746355.204 447.00
LOCATION L0004920     VOLUME   478054.868 3746355.247 447.00
LOCATION L0004921     VOLUME   478046.368 3746355.290 447.00
LOCATION L0004922     VOLUME   478037.869 3746355.332 447.00
LOCATION L0004923     VOLUME   478029.369 3746355.375 447.00
LOCATION L0004924     VOLUME   478020.869 3746355.418 447.00
LOCATION L0004925     VOLUME   478012.369 3746355.460 447.00
LOCATION L0004926     VOLUME   478003.869 3746355.503 447.00
LOCATION L0004927     VOLUME   477995.369 3746355.546 447.00
LOCATION L0004928     VOLUME   477986.869 3746355.588 447.00
LOCATION L0004929     VOLUME   477978.369 3746355.631 447.00
LOCATION L0004930     VOLUME   477969.869 3746355.674 447.00
LOCATION L0004931     VOLUME   477961.369 3746355.716 447.00
LOCATION L0004932     VOLUME   477952.870 3746355.759 447.00
LOCATION L0004933     VOLUME   477944.370 3746355.802 447.00
LOCATION L0004934     VOLUME   477935.870 3746355.844 447.13
LOCATION L0004935     VOLUME   477927.370 3746355.887 447.42
LOCATION L0004936     VOLUME   477918.870 3746355.929 447.70
LOCATION L0004937     VOLUME   477910.370 3746355.972 447.98
LOCATION L0004938     VOLUME   477901.870 3746356.015 448.00
LOCATION L0004939     VOLUME   477893.370 3746356.057 448.00
LOCATION L0004940     VOLUME   477884.870 3746356.100 448.00
LOCATION L0004941     VOLUME   477876.371 3746356.143 448.00
LOCATION L0004942     VOLUME   477867.871 3746356.185 448.00
LOCATION L0004943     VOLUME   477859.371 3746356.228 448.00
LOCATION L0004944     VOLUME   477850.871 3746356.271 448.00
LOCATION L0004945     VOLUME   477842.371 3746356.313 448.00
LOCATION L0004946     VOLUME   477833.871 3746356.356 448.00
LOCATION L0004947     VOLUME   477825.371 3746356.399 448.00
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LOCATION L0004952     VOLUME   477782.872 3746356.612 448.00
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LOCATION L0004956     VOLUME   477748.872 3746356.783 448.00
LOCATION L0004957     VOLUME   477740.372 3746356.825 448.00
LOCATION L0004958     VOLUME   477731.872 3746356.868 448.00
LOCATION L0004959     VOLUME   477723.372 3746356.911 448.00
LOCATION L0004960     VOLUME   477714.873 3746356.953 448.00
LOCATION L0004961     VOLUME   477706.373 3746356.996 448.00
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LOCATION L0004965     VOLUME   477672.373 3746357.167 448.00
LOCATION L0004966     VOLUME   477663.873 3746357.209 448.00
LOCATION L0004967     VOLUME   477655.373 3746357.252 448.00
LOCATION L0004968     VOLUME   477646.873 3746357.295 448.00
LOCATION L0004969     VOLUME   477638.374 3746357.337 448.05
LOCATION L0004970     VOLUME   477629.874 3746357.380 448.33
LOCATION L0004971     VOLUME   477621.375 3746357.504 448.62
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LOCATION L0004973     VOLUME   477604.379 3746357.882 449.00
LOCATION L0004974     VOLUME   477595.881 3746358.071 449.00
LOCATION L0004975     VOLUME   477587.383 3746358.260 449.00
LOCATION L0004976     VOLUME   477578.885 3746358.448 449.00
LOCATION L0004977     VOLUME   477570.387 3746358.637 449.00
LOCATION L0004978     VOLUME   477561.890 3746358.826 449.00
LOCATION L0004979     VOLUME   477553.392 3746359.015 449.00
LOCATION L0004980     VOLUME   477544.894 3746359.204 449.00
LOCATION L0004981     VOLUME   477536.396 3746359.393 449.00
LOCATION L0004982     VOLUME   477527.898 3746359.581 449.00
LOCATION L0004983     VOLUME   477519.400 3746359.770 449.00
LOCATION L0004984     VOLUME   477510.902 3746359.959 449.00
LOCATION L0004985     VOLUME   477502.404 3746360.148 449.00
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LOCATION L0004986     VOLUME   477493.906 3746360.337 449.00
LOCATION L0004987     VOLUME   477485.408 3746360.526 449.15
LOCATION L0004988     VOLUME   477476.918 3746360.759 449.43
LOCATION L0004989     VOLUME   477468.814 3746363.322 449.70
LOCATION L0004990     VOLUME   477460.709 3746365.886 449.97
LOCATION L0004991     VOLUME   477452.605 3746368.450 450.00
LOCATION L0004992     VOLUME   477444.501 3746371.013 450.00
LOCATION L0004993     VOLUME   477436.397 3746373.577 450.00
LOCATION L0004994     VOLUME   477428.293 3746376.140 450.00
LOCATION L0004995     VOLUME   477420.188 3746378.704 450.00
LOCATION L0004996     VOLUME   477412.084 3746381.267 450.00
LOCATION L0004997     VOLUME   477403.980 3746383.831 450.00
LOCATION L0004998     VOLUME   477395.878 3746386.401 450.00
LOCATION L0004999     VOLUME   477388.235 3746390.119 450.00
LOCATION L0005000     VOLUME   477380.591 3746393.838 450.00
LOCATION L0005001     VOLUME   477372.948 3746397.556 450.00
LOCATION L0005002     VOLUME   477365.304 3746401.275 450.00
LOCATION L0005003     VOLUME   477357.661 3746404.993 450.00
LOCATION L0005004     VOLUME   477350.017 3746408.711 450.00
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LOCATION L0005006     VOLUME   477334.730 3746416.148 450.00
LOCATION L0005007     VOLUME   477328.175 3746421.555 450.00
LOCATION L0005008     VOLUME   477321.632 3746426.980 450.00
LOCATION L0005009     VOLUME   477315.089 3746432.406 450.00
LOCATION L0005010     VOLUME   477308.546 3746437.832 450.00
LOCATION L0005011     VOLUME   477302.003 3746443.258 450.00
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LOCATION L0005013     VOLUME   477288.169 3746453.129 450.00
LOCATION L0005014     VOLUME   477281.210 3746458.010 450.00
LOCATION L0005015     VOLUME   477274.251 3746462.891 450.00
LOCATION L0005016     VOLUME   477267.292 3746467.772 450.00
LOCATION L0005017     VOLUME   477260.333 3746472.654 450.00
LOCATION L0005018     VOLUME   477253.374 3746477.535 450.00
LOCATION L0005019     VOLUME   477246.416 3746482.416 450.09
LOCATION L0005020     VOLUME   477239.457 3746487.297 450.22
LOCATION L0005021     VOLUME   477232.498 3746492.178 450.27
LOCATION L0005022     VOLUME   477225.539 3746497.059 450.25
LOCATION L0005023     VOLUME   477218.580 3746501.940 450.18
LOCATION L0005024     VOLUME   477211.621 3746506.821 450.27
LOCATION L0005025     VOLUME   477204.663 3746511.702 450.51
LOCATION L0005026     VOLUME   477197.704 3746516.583 450.74
LOCATION L0005027     VOLUME   477190.745 3746521.464 450.97
LOCATION L0005028     VOLUME   477183.003 3746524.671 451.00
LOCATION L0005029     VOLUME   477174.797 3746526.889 451.00
LOCATION L0005030     VOLUME   477166.591 3746529.107 451.00
LOCATION L0005031     VOLUME   477158.386 3746531.324 451.00
LOCATION L0005032     VOLUME   477150.180 3746533.542 451.00
LOCATION L0005033     VOLUME   477141.975 3746535.760 451.00
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LOCATION L0005035     VOLUME   477125.564 3746540.195 451.00
LOCATION L0005036     VOLUME   477117.300 3746542.070 451.00
LOCATION L0005037     VOLUME   477108.821 3746542.676 451.00
LOCATION L0005038     VOLUME   477100.343 3746543.281 451.00
LOCATION L0005039     VOLUME   477091.865 3746543.887 451.00
LOCATION L0005040     VOLUME   477083.386 3746544.492 451.00
LOCATION L0005041     VOLUME   477074.908 3746545.098 451.00
LOCATION L0005042     VOLUME   477066.429 3746545.704 451.08
LOCATION L0005043     VOLUME   477057.951 3746546.309 451.26
LOCATION L0005044     VOLUME   477049.473 3746546.915 451.44
LOCATION L0005045     VOLUME   477040.994 3746547.520 451.60
LOCATION L0005046     VOLUME   477032.496 3746547.687 451.71
LOCATION L0005047     VOLUME   477023.998 3746547.839 451.82
LOCATION L0005048     VOLUME   477015.499 3746547.990 451.93
LOCATION L0005049     VOLUME   477007.000 3746548.142 452.00
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LOCATION L0005051     VOLUME   476990.003 3746548.446 452.00
LOCATION L0005052     VOLUME   476981.504 3746548.598 452.00
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Residential

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LOCATION	L0005074	VOLUME	476794.556	3746552.948	453.00
LOCATION	L0005075	VOLUME	476786.062	3746553.060	454.00
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LOCATION	L0005092	VOLUME	476641.751	3746547.580	455.17
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LOCATION	L0005111	VOLUME	476514.020	3746641.971	456.00
LOCATION	L0005112	VOLUME	476510.342	3746649.634	456.00
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LOCATION	L0005118	VOLUME	476488.731	3746695.824	456.37
LOCATION	L0005119	VOLUME	476485.279	3746703.591	456.49

Residential

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LOCATION	L0005122	VOLUME	476474.923	3746726.893	456.53
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LOCATION	L0005125	VOLUME	476465.095	3746750.378	456.16
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LOCATION	L0005131	VOLUME	476452.726	3746799.855	456.57
LOCATION	L0005132	VOLUME	476450.664	3746808.101	456.60
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LOCATION	L0005148	VOLUME	476373.977	3746915.788	456.48
LOCATION	L0005149	VOLUME	476367.476	3746921.264	456.51
LOCATION	L0005150	VOLUME	476360.872	3746926.545	456.63
LOCATION	L0005151	VOLUME	476352.672	3746928.781	456.83
LOCATION	L0005152	VOLUME	476344.471	3746931.018	456.87
LOCATION	L0005153	VOLUME	476336.271	3746933.254	456.87
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** End of LINE VOLUME Source ID = SLINE2
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC 5% Inbound from Nandina
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 2.615E-06
** Vertical Dimension = 4.00
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   LOCATION L0005210     VOLUME   478895.660 3747774.731 448.04
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   LOCATION L0005216     VOLUME   478844.660 3747774.731 448.89
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				Residential
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LOCATION L0005313     VOLUME   478276.906 3747520.919 448.00
LOCATION L0005314     VOLUME   478277.004 3747512.419 448.00
LOCATION L0005315     VOLUME   478277.101 3747503.920 448.00
LOCATION L0005316     VOLUME   478277.199 3747495.421 448.00
LOCATION L0005317     VOLUME   478277.297 3747486.921 448.00
LOCATION L0005318     VOLUME   478277.394 3747478.422 448.00
LOCATION L0005319     VOLUME   478277.492 3747469.922 448.00
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LOCATION L0005326     VOLUME   478278.176 3747410.426 448.00
LOCATION L0005327     VOLUME   478278.274 3747401.927 448.00
LOCATION L0005328     VOLUME   478278.371 3747393.427 448.00
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LOCATION L0005334     VOLUME   478278.957 3747342.431 448.00
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LOCATION L0005347     VOLUME   478280.227 3747231.938 448.00
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LOCATION L0005349     VOLUME   478280.423 3747214.939 448.00
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LOCATION L0005353     VOLUME   478280.814 3747180.941 448.00
LOCATION L0005354     VOLUME   478280.911 3747172.442 448.00
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LOCATION L0005357     VOLUME   478281.204 3747146.944 448.00
LOCATION L0005358     VOLUME   478281.302 3747138.444 448.00
LOCATION L0005359     VOLUME   478281.400 3747129.945 448.00
LOCATION L0005360     VOLUME   478281.497 3747121.445 448.00
LOCATION L0005361     VOLUME   478281.595 3747112.946 448.00
LOCATION L0005362     VOLUME   478281.693 3747104.446 448.00
LOCATION L0005363     VOLUME   478281.791 3747095.947 448.00
LOCATION L0005364     VOLUME   478281.888 3747087.447 448.00
LOCATION L0005365     VOLUME   478281.986 3747078.948 448.00
LOCATION L0005366     VOLUME   478282.084 3747070.449 448.00
LOCATION L0005367     VOLUME   478282.181 3747061.949 448.00
LOCATION L0005368     VOLUME   478282.279 3747053.450 448.00
LOCATION L0005369     VOLUME   478282.377 3747044.950 448.00
LOCATION L0005370     VOLUME   478282.474 3747036.451 448.00
LOCATION L0005371     VOLUME   478282.572 3747027.951 448.00
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                                                    Residential
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   LOCATION L0005373     VOLUME   478282.768 3747010.953 448.00
   LOCATION L0005374     VOLUME   478282.865 3747002.453 448.00
   LOCATION L0005375     VOLUME   478282.963 3746993.954 448.00
   LOCATION L0005376     VOLUME   478283.061 3746985.454 448.00
   LOCATION L0005377     VOLUME   478283.158 3746976.955 448.00
   LOCATION L0005378     VOLUME   478283.256 3746968.455 448.00
   LOCATION L0005379     VOLUME   478283.354 3746959.956 448.00
   LOCATION L0005380     VOLUME   478283.451 3746951.456 448.00
   LOCATION L0005381     VOLUME   478283.549 3746942.957 448.00
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   LOCATION L0005383     VOLUME   478283.744 3746925.958 448.00
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   LOCATION L0005385     VOLUME   478283.940 3746908.959 448.00
   LOCATION L0005386     VOLUME   478284.038 3746900.460 448.00
   LOCATION L0005387     VOLUME   478284.135 3746891.960 448.00
   LOCATION L0005388     VOLUME   478284.233 3746883.461 448.00
   LOCATION L0005389     VOLUME   478284.331 3746874.962 448.00
   LOCATION L0005390     VOLUME   478284.428 3746866.462 448.00
   LOCATION L0005391     VOLUME   478284.526 3746857.963 447.87
   LOCATION L0005392     VOLUME   478284.624 3746849.463 447.73
   LOCATION L0005393     VOLUME   478284.721 3746840.964 447.58
   LOCATION L0005394     VOLUME   478284.819 3746832.464 447.44
   LOCATION L0005395     VOLUME   478284.917 3746823.965 447.30
   LOCATION L0005396     VOLUME   478285.014 3746815.465 447.15
   LOCATION L0005397     VOLUME   478285.112 3746806.966 447.01
   LOCATION L0005398     VOLUME   478285.210 3746798.467 447.00
   LOCATION L0005399     VOLUME   478285.308 3746789.967 447.00
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   LOCATION L0005401     VOLUME   478285.503 3746772.968 447.00
** End of LINE VOLUME Source ID = SLINE3
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC 5% Outbound to Nandina
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 7.55E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
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** 478273.988, 3747774.731, 449.00, 0.00, 3.95
** 478285.591, 3746765.326, 447.00, 0.00, 3.95
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   LOCATION L0005413     VOLUME   478972.160 3747774.731 448.00
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   LOCATION L0005422     VOLUME   478895.660 3747774.731 448.04
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Residential

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LOCATION	L0005425	VOLUME	478870.160	3747774.731	448.28
LOCATION	L0005426	VOLUME	478861.660	3747774.731	448.48
LOCATION	L0005427	VOLUME	478853.160	3747774.731	448.68
LOCATION	L0005428	VOLUME	478844.660	3747774.731	448.89
LOCATION	L0005429	VOLUME	478836.160	3747774.731	449.00
LOCATION	L0005430	VOLUME	478827.660	3747774.731	449.00
LOCATION	L0005431	VOLUME	478819.160	3747774.731	449.00
LOCATION	L0005432	VOLUME	478810.660	3747774.731	449.00
LOCATION	L0005433	VOLUME	478802.160	3747774.731	449.00
LOCATION	L0005434	VOLUME	478793.660	3747774.731	449.00
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LOCATION	L0005441	VOLUME	478734.160	3747774.731	449.00
LOCATION	L0005442	VOLUME	478725.660	3747774.731	449.00
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LOCATION	L0005444	VOLUME	478708.660	3747774.731	449.00
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LOCATION	L0005453	VOLUME	478632.160	3747774.731	449.00
LOCATION	L0005454	VOLUME	478623.660	3747774.731	449.00
LOCATION	L0005455	VOLUME	478615.160	3747774.731	449.00
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LOCATION	L0005483	VOLUME	478377.160	3747774.731	449.00
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LOCATION	L0005489	VOLUME	478326.160	3747774.731	449.00

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LOCATION L0005494     VOLUME   478283.660 3747774.731 449.00
LOCATION L0005495     VOLUME   478275.160 3747774.731 449.00
LOCATION L0005496     VOLUME   478274.073 3747767.403 449.00
LOCATION L0005497     VOLUME   478274.170 3747758.903 449.00
LOCATION L0005498     VOLUME   478274.268 3747750.404 449.00
LOCATION L0005499     VOLUME   478274.366 3747741.904 449.00
LOCATION L0005500     VOLUME   478274.463 3747733.405 449.00
LOCATION L0005501     VOLUME   478274.561 3747724.905 449.00
LOCATION L0005502     VOLUME   478274.659 3747716.406 449.00
LOCATION L0005503     VOLUME   478274.757 3747707.906 449.00
LOCATION L0005504     VOLUME   478274.854 3747699.407 449.00
LOCATION L0005505     VOLUME   478274.952 3747690.908 449.00
LOCATION L0005506     VOLUME   478275.050 3747682.408 449.00
LOCATION L0005507     VOLUME   478275.147 3747673.909 448.92
LOCATION L0005508     VOLUME   478275.245 3747665.409 448.64
LOCATION L0005509     VOLUME   478275.343 3747656.910 448.36
LOCATION L0005510     VOLUME   478275.440 3747648.410 448.07
LOCATION L0005511     VOLUME   478275.538 3747639.911 448.00
LOCATION L0005512     VOLUME   478275.636 3747631.412 448.00
LOCATION L0005513     VOLUME   478275.733 3747622.912 448.00
LOCATION L0005514     VOLUME   478275.831 3747614.413 448.00
LOCATION L0005515     VOLUME   478275.929 3747605.913 448.00
LOCATION L0005516     VOLUME   478276.027 3747597.414 448.00
LOCATION L0005517     VOLUME   478276.124 3747588.914 448.00
LOCATION L0005518     VOLUME   478276.222 3747580.415 448.00
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LOCATION L0005522     VOLUME   478276.613 3747546.417 448.00
LOCATION L0005523     VOLUME   478276.710 3747537.918 448.00
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LOCATION L0005526     VOLUME   478277.004 3747512.419 448.00
LOCATION L0005527     VOLUME   478277.101 3747503.920 448.00
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LOCATION L0005536     VOLUME   478277.980 3747427.425 448.00
LOCATION L0005537     VOLUME   478278.078 3747418.926 448.00
LOCATION L0005538     VOLUME   478278.176 3747410.426 448.00
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LOCATION L0005543     VOLUME   478278.664 3747367.929 448.00
LOCATION L0005544     VOLUME   478278.762 3747359.430 448.00
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LOCATION L0005546     VOLUME   478278.957 3747342.431 448.00
LOCATION L0005547     VOLUME   478279.055 3747333.931 448.00
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LOCATION L0005549     VOLUME   478279.250 3747316.932 448.00
LOCATION L0005550     VOLUME   478279.348 3747308.433 448.00
LOCATION L0005551     VOLUME   478279.446 3747299.933 448.00
LOCATION L0005552     VOLUME   478279.544 3747291.434 448.00
LOCATION L0005553     VOLUME   478279.641 3747282.935 448.00
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LOCATION L0005555     VOLUME   478279.837 3747265.936 448.00
LOCATION L0005556     VOLUME   478279.934 3747257.436 448.00
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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   LOCATION L0005608     VOLUME   478285.014 3746815.465 447.15
   LOCATION L0005609     VOLUME   478285.112 3746806.966 447.01
   LOCATION L0005610     VOLUME   478285.210 3746798.467 447.00
   LOCATION L0005611     VOLUME   478285.308 3746789.967 447.00
   LOCATION L0005612     VOLUME   478285.405 3746781.468 447.00
   LOCATION L0005613     VOLUME   478285.503 3746772.968 447.00
** End of LINE VOLUME Source ID = SLINE4
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC 5% Outbound to Grove View Road
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 1.426E-06
** Vertical Dimension = 4.00
```

```
** SZINIT = 1.86
** Nodes = 3
** 478283.814, 3746782.935, 447.00, 0.00, 3.95
** 478280.367, 3746965.630, 448.00, 0.00, 3.95
** 479081.812, 3746958.736, 446.00, 0.00, 3.95
** ------------------------------------------------------------------
   LOCATION L0005614     VOLUME   478283.734 3746787.184 447.00
   LOCATION L0005615     VOLUME   478283.573 3746795.682 447.00
   LOCATION L0005616     VOLUME   478283.413 3746804.181 447.00
   LOCATION L0005617     VOLUME   478283.253 3746812.679 447.12
   LOCATION L0005618     VOLUME   478283.092 3746821.178 447.28
   LOCATION L0005619     VOLUME   478282.932 3746829.676 447.44
   LOCATION L0005620     VOLUME   478282.772 3746838.175 447.60
   LOCATION L0005621     VOLUME   478282.611 3746846.673 447.72
   LOCATION L0005622     VOLUME   478282.451 3746855.172 447.85
   LOCATION L0005623     VOLUME   478282.290 3746863.670 447.97
   LOCATION L0005624     VOLUME   478282.130 3746872.169 448.00
   LOCATION L0005625     VOLUME   478281.970 3746880.667 448.00
   LOCATION L0005626     VOLUME   478281.809 3746889.166 448.00
   LOCATION L0005627     VOLUME   478281.649 3746897.664 448.00
   LOCATION L0005628     VOLUME   478281.489 3746906.163 448.00
   LOCATION L0005629     VOLUME   478281.328 3746914.661 448.00
   LOCATION L0005630     VOLUME   478281.168 3746923.160 448.00
   LOCATION L0005631     VOLUME   478281.008 3746931.658 448.00
   LOCATION L0005632     VOLUME   478280.847 3746940.157 448.00
   LOCATION L0005633     VOLUME   478280.687 3746948.655 448.00
   LOCATION L0005634     VOLUME   478280.527 3746957.154 448.00
   LOCATION L0005635     VOLUME   478280.389 3746965.630 448.00
   LOCATION L0005636     VOLUME   478288.889 3746965.556 448.00
   LOCATION L0005637     VOLUME   478297.388 3746965.483 448.00
   LOCATION L0005638     VOLUME   478305.888 3746965.410 448.00
   LOCATION L0005639     VOLUME   478314.388 3746965.337 448.00
   LOCATION L0005640     VOLUME   478322.888 3746965.264 448.00
   LOCATION L0005641     VOLUME   478331.387 3746965.191 448.00
   LOCATION L0005642     VOLUME   478339.887 3746965.118 448.00
   LOCATION L0005643     VOLUME   478348.387 3746965.045 448.00
   LOCATION L0005644     VOLUME   478356.886 3746964.972 448.00
   LOCATION L0005645     VOLUME   478365.386 3746964.898 447.87
   LOCATION L0005646     VOLUME   478373.886 3746964.825 447.67
   LOCATION L0005647     VOLUME   478382.385 3746964.752 447.46
   LOCATION L0005648     VOLUME   478390.885 3746964.679 447.27
   LOCATION L0005649     VOLUME   478399.385 3746964.606 447.19
   LOCATION L0005650     VOLUME   478407.884 3746964.533 447.11
   LOCATION L0005651     VOLUME   478416.384 3746964.460 447.03
   LOCATION L0005652     VOLUME   478424.884 3746964.387 447.00
   LOCATION L0005653     VOLUME   478433.383 3746964.313 447.00
   LOCATION L0005654     VOLUME   478441.883 3746964.240 447.00
   LOCATION L0005655     VOLUME   478450.383 3746964.167 447.00
   LOCATION L0005656     VOLUME   478458.882 3746964.094 447.00
   LOCATION L0005657     VOLUME   478467.382 3746964.021 447.00
   LOCATION L0005658     VOLUME   478475.882 3746963.948 447.00
   LOCATION L0005659     VOLUME   478484.382 3746963.875 447.00
   LOCATION L0005660     VOLUME   478492.881 3746963.802 447.00
   LOCATION L0005661     VOLUME   478501.381 3746963.729 447.00
   LOCATION L0005662     VOLUME   478509.881 3746963.655 447.00
   LOCATION L0005663     VOLUME   478518.380 3746963.582 447.00
   LOCATION L0005664     VOLUME   478526.880 3746963.509 447.00
   LOCATION L0005665     VOLUME   478535.380 3746963.436 447.00
   LOCATION L0005666     VOLUME   478543.879 3746963.363 447.00
   LOCATION L0005667     VOLUME   478552.379 3746963.290 447.00
   LOCATION L0005668     VOLUME   478560.879 3746963.217 447.00
   LOCATION L0005669     VOLUME   478569.378 3746963.144 447.00
   LOCATION L0005670     VOLUME   478577.878 3746963.071 447.00
   LOCATION L0005671     VOLUME   478586.378 3746962.997 447.00
   LOCATION L0005672     VOLUME   478594.877 3746962.924 447.00
   LOCATION L0005673     VOLUME   478603.377 3746962.851 447.00
   LOCATION L0005674     VOLUME   478611.877 3746962.778 447.00
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                    Residential
   LOCATION L0005675     VOLUME   478620.376 3746962.705 447.00
   LOCATION L0005676     VOLUME   478628.876 3746962.632 447.00
   LOCATION L0005677     VOLUME   478637.376 3746962.559 447.00
   LOCATION L0005678     VOLUME   478645.876 3746962.486 447.00
   LOCATION L0005679     VOLUME   478654.375 3746962.412 447.00
   LOCATION L0005680     VOLUME   478662.875 3746962.339 446.92
   LOCATION L0005681     VOLUME   478671.375 3746962.266 446.69
   LOCATION L0005682     VOLUME   478679.874 3746962.193 446.47
   LOCATION L0005683     VOLUME   478688.374 3746962.120 446.24
   LOCATION L0005684     VOLUME   478696.874 3746962.047 446.19
   LOCATION L0005685     VOLUME   478705.373 3746961.974 446.19
   LOCATION L0005686     VOLUME   478713.873 3746961.901 446.19
   LOCATION L0005687     VOLUME   478722.373 3746961.828 446.17
   LOCATION L0005688     VOLUME   478730.872 3746961.754 446.12
   LOCATION L0005689     VOLUME   478739.372 3746961.681 446.06
   LOCATION L0005690     VOLUME   478747.872 3746961.608 446.01
   LOCATION L0005691     VOLUME   478756.371 3746961.535 446.00
   LOCATION L0005692     VOLUME   478764.871 3746961.462 446.00
   LOCATION L0005693     VOLUME   478773.371 3746961.389 446.00
   LOCATION L0005694     VOLUME   478781.871 3746961.316 446.00
   LOCATION L0005695     VOLUME   478790.370 3746961.243 446.00
   LOCATION L0005696     VOLUME   478798.870 3746961.170 446.00
   LOCATION L0005697     VOLUME   478807.370 3746961.096 446.00
   LOCATION L0005698     VOLUME   478815.869 3746961.023 446.00
   LOCATION L0005699     VOLUME   478824.369 3746960.950 446.00
   LOCATION L0005700     VOLUME   478832.869 3746960.877 446.00
   LOCATION L0005701     VOLUME   478841.368 3746960.804 446.00
   LOCATION L0005702     VOLUME   478849.868 3746960.731 446.00
   LOCATION L0005703     VOLUME   478858.368 3746960.658 446.00
   LOCATION L0005704     VOLUME   478866.867 3746960.585 446.00
   LOCATION L0005705     VOLUME   478875.367 3746960.511 446.00
   LOCATION L0005706     VOLUME   478883.867 3746960.438 446.00
   LOCATION L0005707     VOLUME   478892.366 3746960.365 446.00
   LOCATION L0005708     VOLUME   478900.866 3746960.292 446.00
   LOCATION L0005709     VOLUME   478909.366 3746960.219 446.00
   LOCATION L0005710     VOLUME   478917.865 3746960.146 446.00
   LOCATION L0005711     VOLUME   478926.365 3746960.073 446.00
   LOCATION L0005712     VOLUME   478934.865 3746960.000 446.00
   LOCATION L0005713     VOLUME   478943.365 3746959.927 446.00
   LOCATION L0005714     VOLUME   478951.864 3746959.853 446.00
   LOCATION L0005715     VOLUME   478960.364 3746959.780 446.00
   LOCATION L0005716     VOLUME   478968.864 3746959.707 446.00
   LOCATION L0005717     VOLUME   478977.363 3746959.634 446.00
   LOCATION L0005718     VOLUME   478985.863 3746959.561 446.00
   LOCATION L0005719     VOLUME   478994.363 3746959.488 446.00
   LOCATION L0005720     VOLUME   479002.862 3746959.415 446.00
   LOCATION L0005721     VOLUME   479011.362 3746959.342 446.00
   LOCATION L0005722     VOLUME   479019.862 3746959.269 446.00
   LOCATION L0005723     VOLUME   479028.361 3746959.195 446.00
   LOCATION L0005724     VOLUME   479036.861 3746959.122 446.00
   LOCATION L0005725     VOLUME   479045.361 3746959.049 446.00
   LOCATION L0005726     VOLUME   479053.860 3746958.976 446.00
   LOCATION L0005727     VOLUME   479062.360 3746958.903 446.00
   LOCATION L0005728     VOLUME   479070.860 3746958.830 446.00
   LOCATION L0005729     VOLUME   479079.360 3746958.757 446.00
** End of LINE VOLUME Source ID = SLINE5
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00009598
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
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** 477923.678, 3746810.357, 448.00, 0.00, 3.95
** 478177.247, 3746809.187, 448.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0005730     VOLUME   477927.928 3746810.338 448.00
   LOCATION L0005731     VOLUME   477936.428 3746810.298 448.00
   LOCATION L0005732     VOLUME   477944.928 3746810.259 448.00
   LOCATION L0005733     VOLUME   477953.428 3746810.220 448.00
   LOCATION L0005734     VOLUME   477961.928 3746810.181 448.00
   LOCATION L0005735     VOLUME   477970.428 3746810.142 448.00
   LOCATION L0005736     VOLUME   477978.928 3746810.102 448.00
   LOCATION L0005737     VOLUME   477987.428 3746810.063 448.00
   LOCATION L0005738     VOLUME   477995.928 3746810.024 448.00
   LOCATION L0005739     VOLUME   478004.428 3746809.985 448.00
   LOCATION L0005740     VOLUME   478012.927 3746809.946 448.00
   LOCATION L0005741     VOLUME   478021.427 3746809.906 448.00
   LOCATION L0005742     VOLUME   478029.927 3746809.867 448.00
   LOCATION L0005743     VOLUME   478038.427 3746809.828 448.00
   LOCATION L0005744     VOLUME   478046.927 3746809.789 448.00
   LOCATION L0005745     VOLUME   478055.427 3746809.749 448.00
   LOCATION L0005746     VOLUME   478063.927 3746809.710 448.00
   LOCATION L0005747     VOLUME   478072.427 3746809.671 448.00
   LOCATION L0005748     VOLUME   478080.927 3746809.632 448.00
   LOCATION L0005749     VOLUME   478089.427 3746809.593 448.00
   LOCATION L0005750     VOLUME   478097.927 3746809.553 448.00
   LOCATION L0005751     VOLUME   478106.426 3746809.514 448.00
   LOCATION L0005752     VOLUME   478114.926 3746809.475 448.00
   LOCATION L0005753     VOLUME   478123.426 3746809.436 448.00
   LOCATION L0005754     VOLUME   478131.926 3746809.396 448.00
   LOCATION L0005755     VOLUME   478140.426 3746809.357 448.00
   LOCATION L0005756     VOLUME   478148.926 3746809.318 448.00
   LOCATION L0005757     VOLUME   478157.426 3746809.279 448.00
   LOCATION L0005758     VOLUME   478165.926 3746809.240 448.00
   LOCATION L0005759     VOLUME   478174.426 3746809.200 448.00
** End of LINE VOLUME Source ID = SLINE6
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004634
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 478271.074, 3746792.209, 447.08, 0.00, 3.95
** 478177.349, 3746791.961, 448.00, 0.00, 3.95
** 477890.952, 3746791.463, 448.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0005760     VOLUME   478266.824 3746792.198 447.05
   LOCATION L0005761     VOLUME   478258.324 3746792.175 447.21
   LOCATION L0005762     VOLUME   478249.824 3746792.153 447.36
   LOCATION L0005763     VOLUME   478241.324 3746792.130 447.51
   LOCATION L0005764     VOLUME   478232.824 3746792.108 447.64
   LOCATION L0005765     VOLUME   478224.325 3746792.085 447.77
   LOCATION L0005766     VOLUME   478215.825 3746792.063 447.91
   LOCATION L0005767     VOLUME   478207.325 3746792.040 448.00
   LOCATION L0005768     VOLUME   478198.825 3746792.018 448.00
   LOCATION L0005769     VOLUME   478190.325 3746791.995 448.00
   LOCATION L0005770     VOLUME   478181.825 3746791.972 448.00
   LOCATION L0005771     VOLUME   478173.325 3746791.954 448.00
   LOCATION L0005772     VOLUME   478164.825 3746791.939 448.00
   LOCATION L0005773     VOLUME   478156.325 3746791.924 448.00
   LOCATION L0005774     VOLUME   478147.825 3746791.909 448.00
   LOCATION L0005775     VOLUME   478139.325 3746791.895 448.00
   LOCATION L0005776     VOLUME   478130.825 3746791.880 448.00
   LOCATION L0005777     VOLUME   478122.325 3746791.865 448.00
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                Residential
   LOCATION L0005778     VOLUME   478113.825 3746791.850 448.00
   LOCATION L0005779     VOLUME   478105.325 3746791.836 448.00
   LOCATION L0005780     VOLUME   478096.825 3746791.821 448.00
   LOCATION L0005781     VOLUME   478088.325 3746791.806 448.00
   LOCATION L0005782     VOLUME   478079.825 3746791.791 448.00
   LOCATION L0005783     VOLUME   478071.325 3746791.777 448.00
   LOCATION L0005784     VOLUME   478062.825 3746791.762 448.00
   LOCATION L0005785     VOLUME   478054.325 3746791.747 448.00
   LOCATION L0005786     VOLUME   478045.825 3746791.732 448.00
   LOCATION L0005787     VOLUME   478037.325 3746791.717 448.00
   LOCATION L0005788     VOLUME   478028.825 3746791.703 448.00
   LOCATION L0005789     VOLUME   478020.325 3746791.688 448.00
   LOCATION L0005790     VOLUME   478011.825 3746791.673 448.00
   LOCATION L0005791     VOLUME   478003.325 3746791.658 448.00
   LOCATION L0005792     VOLUME   477994.825 3746791.644 448.00
   LOCATION L0005793     VOLUME   477986.325 3746791.629 448.00
   LOCATION L0005794     VOLUME   477977.825 3746791.614 448.00
   LOCATION L0005795     VOLUME   477969.325 3746791.599 448.00
   LOCATION L0005796     VOLUME   477960.825 3746791.585 448.00
   LOCATION L0005797     VOLUME   477952.325 3746791.570 448.00
   LOCATION L0005798     VOLUME   477943.825 3746791.555 448.00
   LOCATION L0005799     VOLUME   477935.325 3746791.540 448.00
   LOCATION L0005800     VOLUME   477926.825 3746791.526 448.00
   LOCATION L0005801     VOLUME   477918.325 3746791.511 448.00
   LOCATION L0005802     VOLUME   477909.825 3746791.496 448.00
   LOCATION L0005803     VOLUME   477901.325 3746791.481 448.00
   LOCATION L0005804     VOLUME   477892.825 3746791.467 448.00
** End of LINE VOLUME Source ID = SLINE7
   LOCATION STCK1        POINT      477935.000  3746812.710      448.000
** DESCRSRC TRU Idling
   LOCATION STCK2        POINT      477996.522  3746810.249      448.000
** DESCRSRC TRU Idling
   LOCATION STCK3        POINT      478082.653  3746811.233      448.000
** DESCRSRC TRU Idling
   LOCATION STCK4        POINT      478157.955  3746809.757      448.000
** DESCRSRC TRU Idling
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0004494     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004495     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004496     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004497     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004498     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004499     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004500     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004501     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004502     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004503     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004504     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004505     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004506     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004507     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004508     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004509     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004510     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004511     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004512     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004513     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004514     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004515     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004516     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004517     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004518     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004519     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004520     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004521     0.0000002338      0.00      3.95      1.86
   SRCPARAM L0004522     0.0000002338      0.00      3.95      1.86
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                Residential
SRCPARAM L0004523     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004524     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004525     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004526     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004527     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004528     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004529     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004530     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004531     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004532     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004533     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004534     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004535     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004536     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004537     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004538     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004539     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004540     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004541     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004542     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004543     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004544     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004545     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004546     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004547     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004548     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004549     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004550     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004551     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004552     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004553     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004554     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004555     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004556     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004557     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004558     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004559     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004560     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004561     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004562     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004563     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004564     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004565     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004566     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004567     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004568     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004569     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004570     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004571     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004572     0.0000002338      0.00       3.95       1.86
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SRCPARAM L0004574     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004575     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004576     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004577     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004578     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004579     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004580     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004581     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004582     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004583     0.0000002338      0.00       3.95       1.86
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SRCPARAM L0004585     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004586     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004587     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004588     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004589     0.0000002338      0.00       3.95       1.86
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                                                Residential
SRCPARAM L0004590     0.0000002338      0.00       3.95      1.86
SRCPARAM L0004591     0.0000002338      0.00       3.95      1.86
SRCPARAM L0004592     0.0000002338      0.00       3.95      1.86
SRCPARAM L0004593     0.0000002338      0.00       3.95      1.86
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SRCPARAM L0004612     0.0000002338      0.00       3.95      1.86
SRCPARAM L0004613     0.0000002338      0.00       3.95      1.86
SRCPARAM L0004614     0.0000002338      0.00       3.95      1.86
SRCPARAM L0004615     0.0000002338      0.00       3.95      1.86
SRCPARAM L0004616     0.0000002338      0.00       3.95      1.86
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SRCPARAM L0004720     0.0000002338      0.00       3.95      1.86
SRCPARAM L0004721     0.0000002338      0.00       3.95      1.86
SRCPARAM L0004722     0.0000002338      0.00       3.95      1.86
SRCPARAM L0004723     0.0000002338      0.00       3.95      1.86
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                                                Residential
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SRCPARAM L0004729     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004730     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004731     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004732     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004733     0.0000002338      0.00       3.95       1.86
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SRCPARAM L0004736     0.0000002338      0.00       3.95       1.86
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SRCPARAM L0004740     0.0000002338      0.00       3.95       1.86
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SRCPARAM L0004749     0.0000002338      0.00       3.95       1.86
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SRCPARAM L0004771     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004772     0.0000002338      0.00       3.95       1.86
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SRCPARAM L0004789     0.0000002338      0.00       3.95       1.86
SRCPARAM L0004790     0.0000002338      0.00       3.95       1.86
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   SRCPARAM L0004813     0.0000002338      0.00       3.95      1.86
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   SRCPARAM L0004840     0.0000002338      0.00       3.95      1.86
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   SRCPARAM L0004847     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0004848     0.0000002215      0.00       3.95      1.86
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   SRCPARAM L0004851     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0004852     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0004853     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0004854     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0004855     0.0000002215      0.00       3.95      1.86
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                                                Residential
SRCPARAM L0004856     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004857     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004858     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004859     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0004861     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004862     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004863     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004864     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004865     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004866     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004867     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004868     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004869     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004870     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004871     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004872     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004873     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004874     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004875     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004876     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004877     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004878     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004879     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004880     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004881     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004882     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004883     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004884     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0004886     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004887     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004888     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004889     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004890     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0004892     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004893     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0004895     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0004910     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0004912     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0004919     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004920     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0004922     0.0000002215      0.00       3.95       1.86
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                                                Residential
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SRCPARAM L0004929     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004930     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004931     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004932     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004933     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004934     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004935     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004936     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004937     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004938     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004939     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004940     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004941     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004942     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004943     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004944     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004945     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0004947     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0004949     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0004968     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004969     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004970     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0004976     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004977     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004978     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004979     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004980     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004981     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0004983     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0004985     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004986     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004987     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004988     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004989     0.0000002215      0.00       3.95       1.86
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                                                Residential
SRCPARAM L0004990     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0004994     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004995     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004996     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004997     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004998     0.0000002215      0.00       3.95       1.86
SRCPARAM L0004999     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005000     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005001     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005002     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005003     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005004     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005005     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005006     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005007     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005008     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005009     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0005012     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0005015     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005016     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005017     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0005021     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0005023     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005024     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005025     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005026     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005027     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0005029     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0005035     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0005052     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005053     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005054     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0005056     0.0000002215      0.00       3.95       1.86
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                                                Residential
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SRCPARAM L0005058     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0005060     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0005075     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0005080     0.0000002215      0.00       3.95       1.86
SRCPARAM L0005081     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0005089     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0005092     0.0000002215      0.00       3.95       1.86
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SRCPARAM L0005123     0.0000002215      0.00       3.95       1.86
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   SRCPARAM L0005143     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005144     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005145     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005146     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005147     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005148     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005149     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005150     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005151     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005152     0.0000002215      0.00       3.95      1.86
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   SRCPARAM L0005154     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005155     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005156     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005157     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005158     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005159     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005160     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005161     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005162     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005163     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005164     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005165     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005166     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005167     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005168     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005169     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005170     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005171     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005172     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005173     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005174     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005175     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005176     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005177     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005178     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005179     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005180     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005181     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005182     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005183     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005184     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005185     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005186     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005187     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005188     0.0000002215      0.00       3.95      1.86
   SRCPARAM L0005189     0.0000002215      0.00       3.95      1.86
** ------------------------------------------------------------------
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Residential

** LINE VOLUME Source ID = SLINE3

SRCPARAM	L0005190	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005191	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005192	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005193	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005194	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005195	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005196	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005197	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005198	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005199	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005200	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005201	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005202	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005203	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005204	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005205	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005206	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005207	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005208	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005209	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005210	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005211	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005212	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005213	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005214	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005215	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005216	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005217	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005218	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005219	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005220	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005221	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005222	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005223	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005224	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005225	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005226	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005227	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005228	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005229	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005230	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005231	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005232	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005233	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005234	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005235	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005236	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005237	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005238	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005239	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005240	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005241	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005242	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005243	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005244	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005245	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005246	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005247	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005248	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005249	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005250	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005251	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005252	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005253	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005254	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005255	0.00000001233	0.00	3.95	1.86

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

				Residential	
SRCPARAM	L0005256	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005257	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005258	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005259	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005260	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005261	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005262	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005263	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005264	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005265	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005266	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005267	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005268	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005269	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005270	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005271	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005272	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005273	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005274	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005275	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005276	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005277	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005278	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005279	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005280	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005281	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005282	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005283	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005284	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005285	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005286	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005287	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005288	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005289	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005290	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005291	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005292	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005293	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005294	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005295	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005296	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005297	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005298	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005299	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005300	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005301	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005302	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005303	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005304	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005305	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005306	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005307	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005308	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005309	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005310	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005311	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005312	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005313	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005314	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005315	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005316	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005317	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005318	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005319	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005320	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005321	0.00000001233	0.00	3.95	1.86
SRCPARAM	L0005322	0.00000001233	0.00	3.95	1.86

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                                                Residential
SRCPARAM L0005323     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005324     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005325     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005326     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005327     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005328     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005329     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005330     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005331     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005332     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005333     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005334     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005335     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005336     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005337     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005338     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005339     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005340     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005341     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005342     0.00000001233      0.00      3.95      1.86
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SRCPARAM L0005348     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005349     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005350     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005351     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005352     0.00000001233      0.00      3.95      1.86
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SRCPARAM L0005355     0.00000001233      0.00      3.95      1.86
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SRCPARAM L0005357     0.00000001233      0.00      3.95      1.86
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SRCPARAM L0005359     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005360     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005361     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005362     0.00000001233      0.00      3.95      1.86
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SRCPARAM L0005364     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005365     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005366     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005367     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005368     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005369     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005370     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005371     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005372     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005373     0.00000001233      0.00      3.95      1.86
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SRCPARAM L0005375     0.00000001233      0.00      3.95      1.86
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SRCPARAM L0005378     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005379     0.00000001233      0.00      3.95      1.86
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SRCPARAM L0005382     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005383     0.00000001233      0.00      3.95      1.86
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SRCPARAM L0005386     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005387     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005388     0.00000001233      0.00      3.95      1.86
SRCPARAM L0005389     0.00000001233      0.00      3.95      1.86
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                                                  Residential
   SRCPARAM L0005390     0.00000001233      0.00      3.95      1.86
   SRCPARAM L0005391     0.00000001233      0.00      3.95      1.86
   SRCPARAM L0005392     0.00000001233      0.00      3.95      1.86
   SRCPARAM L0005393     0.00000001233      0.00      3.95      1.86
   SRCPARAM L0005394     0.00000001233      0.00      3.95      1.86
   SRCPARAM L0005395     0.00000001233      0.00      3.95      1.86
   SRCPARAM L0005396     0.00000001233      0.00      3.95      1.86
   SRCPARAM L0005397     0.00000001233      0.00      3.95      1.86
   SRCPARAM L0005398     0.00000001233      0.00      3.95      1.86
   SRCPARAM L0005399     0.00000001233      0.00      3.95      1.86
   SRCPARAM L0005400     0.00000001233      0.00      3.95      1.86
   SRCPARAM L0005401     0.00000001233      0.00      3.95      1.86
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
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   SRCPARAM L0005403     0.00000003561      0.00      3.95      1.86
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   SRCPARAM L0005405     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005406     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005407     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005408     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005409     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005410     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005411     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005412     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005413     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005414     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005415     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005416     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005417     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005418     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005419     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005420     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005421     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005422     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005423     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005424     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005425     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005426     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005427     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005428     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005429     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005430     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005431     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005432     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005433     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005434     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005435     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005436     0.00000003561      0.00      3.95      1.86
   SRCPARAM L0005437     0.00000003561      0.00      3.95      1.86
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   SRCPARAM L0005729     0.00000001229      0.00      3.95      1.86
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0005730     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005731     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005732     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005733     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005734     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005735     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005736     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005737     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005738     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005739     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005740     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005741     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005742     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005743     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005744     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005745     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005746     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005747     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005748     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005749     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005750     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005751     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005752     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005753     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005754     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005755     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005756     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005757     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005758     0.000003199      0.00      3.95      1.86
   SRCPARAM L0005759     0.000003199      0.00      3.95      1.86
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
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   SRCPARAM L0005761     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005762     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005763     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005764     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005765     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005766     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005767     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005768     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005769     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005770     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005771     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005772     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005773     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005774     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005775     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005776     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005777     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005778     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005779     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005780     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005781     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005782     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005783     0.00000103      0.00      3.95      1.86
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                                                Residential
   SRCPARAM L0005784     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005785     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005786     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005787     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005788     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005789     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005790     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005791     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005792     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005793     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005794     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005795     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005796     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005797     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005798     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005799     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005800     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005801     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005802     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005803     0.00000103      0.00      3.95      1.86
   SRCPARAM L0005804     0.00000103      0.00      3.95      1.86
** ------------------------------------------------------------------
   SRCPARAM STCK1        0.000063265     3.960   501.000  49.98300     0.044
   SRCPARAM STCK2        0.000063265     3.960   501.000  49.98300     0.044
   SRCPARAM STCK3        0.000063265     3.960   501.000  49.98300     0.044
   SRCPARAM STCK4        0.000063265     3.960   501.000  49.98300     0.044
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "School"
   EMISFACT L0004494     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0004495     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0004497     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0004501     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                                                Residential
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EMISFACT L0004505     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0004506     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0004507     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0004507     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0004507     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0004509     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0004536     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0004536     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                                                  Residential
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   SRCGROUP ALL
SO FINISHED
**
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED School.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\peri8.sfc
   PROFFILE ..\peri8.PFL
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL SCHOOL.AD\AN00GALL.PLT 31
   SUMMFILE School.sum
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   15:38:09

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for  1315 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

5. No Exponential Decay.
6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: DPM

**Model Calculates ANNUAL Averages Only

**This Run Includes: 1315 Source(s); 1 Source Group(s); and 5 Receptor(s)

with: 4 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 1311 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 14134

**Output Options Selected:
Model Outputs Tables of ANNUAL Averages by Receptor
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 442.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 4.3 MB of RAM.

**Detailed Error/Message File: School.err

**File for Summary of Results: School.sum

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR VARY BY	EMIS RATE SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                Residential
 STCK1            0   0.63265E-04  477935.0 3746812.7   448.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
 STCK2            0   0.63265E-04  477996.5 3746810.2   448.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
 STCK3            0   0.63265E-04  478082.7 3746811.2   448.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
 STCK4            0   0.63265E-04  478158.0 3746809.8   448.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   15:38:09

   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - -

 L0004494         0   0.23380E-06  478284.5 3746785.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004495         0   0.23380E-06  478284.5 3746777.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004496         0   0.23380E-06  478284.6 3746768.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004497         0   0.23380E-06  478284.6 3746760.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004498         0   0.23380E-06  478284.6 3746751.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004499         0   0.23380E-06  478284.7 3746743.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004500         0   0.23380E-06  478284.7 3746734.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004501         0   0.23380E-06  478284.7 3746726.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004502         0   0.23380E-06  478284.8 3746717.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004503         0   0.23380E-06  478284.8 3746709.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004504         0   0.23380E-06  478284.8 3746700.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004505         0   0.23380E-06  478284.9 3746692.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004506         0   0.23380E-06  478284.9 3746683.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004507         0   0.23380E-06  478284.9 3746675.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004508         0   0.23380E-06  478284.9 3746666.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004509         0   0.23380E-06  478285.0 3746658.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004510         0   0.23380E-06  478285.0 3746649.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004511         0   0.23380E-06  478285.0 3746641.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004512         0   0.23380E-06  478285.1 3746632.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004513         0   0.23380E-06  478285.1 3746624.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004514         0   0.23380E-06  478285.1 3746615.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004515         0   0.23380E-06  478285.2 3746607.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004516         0   0.23380E-06  478285.2 3746598.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004517         0   0.23380E-06  478285.2 3746590.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004518         0   0.23380E-06  478285.3 3746581.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004519         0   0.23380E-06  478285.3 3746573.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004520         0   0.23380E-06  478285.3 3746564.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004521         0   0.23380E-06  478285.3 3746556.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004522         0   0.23380E-06  478285.4 3746547.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004523         0   0.23380E-06  478285.4 3746539.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004524         0   0.23380E-06  478285.4 3746530.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004525         0   0.23380E-06  478285.5 3746522.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004526         0   0.23380E-06  478285.5 3746513.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004527         0   0.23380E-06  478285.5 3746505.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004528         0   0.23380E-06  478285.6 3746496.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004529         0   0.23380E-06  478285.6 3746488.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004530         0   0.23380E-06  478285.6 3746479.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004531         0   0.23380E-06  478285.7 3746471.4   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004532         0   0.23380E-06  478285.7 3746462.9   447.0     0.00     3.95     1.86     YES   HROFDY
 L0004533         0   0.23380E-06  478285.7 3746454.4   447.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004534	0	0.23380E-06	478285.8	3746445.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004535	0	0.23380E-06	478285.8	3746437.4	446.8	0.00	3.95	1.86	YES	HROFDY
L0004536	0	0.23380E-06	478285.8	3746428.9	446.7	0.00	3.95	1.86	YES	HROFDY
L0004537	0	0.23380E-06	478285.8	3746420.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004538	0	0.23380E-06	478285.9	3746411.9	446.5	0.00	3.95	1.86	YES	HROFDY
L0004539	0	0.23380E-06	478285.9	3746403.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004540	0	0.23380E-06	478285.9	3746394.9	446.5	0.00	3.95	1.86	YES	HROFDY
L0004541	0	0.23380E-06	478286.0	3746386.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004542	0	0.23380E-06	478286.0	3746377.9	446.5	0.00	3.95	1.86	YES	HROFDY
L0004543	0	0.23380E-06	478286.0	3746369.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004544	0	0.23380E-06	478286.1	3746360.9	446.5	0.00	3.95	1.86	YES	HROFDY
L0004545	0	0.23380E-06	478284.4	3746354.1	446.5	0.00	3.95	1.86	YES	HROFDY
L0004546	0	0.23380E-06	478275.9	3746354.1	446.8	0.00	3.95	1.86	YES	HROFDY
L0004547	0	0.23380E-06	478267.4	3746354.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004548	0	0.23380E-06	478258.9	3746354.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004549	0	0.23380E-06	478250.4	3746354.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0004550	0	0.23380E-06	478241.9	3746354.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0004551	0	0.23380E-06	478233.4	3746354.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004552	0	0.23380E-06	478224.9	3746354.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004553	0	0.23380E-06	478216.4	3746354.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004554	0	0.23380E-06	478207.9	3746354.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004555	0	0.23380E-06	478199.4	3746354.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004556	0	0.23380E-06	478190.9	3746354.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004557	0	0.23380E-06	478182.4	3746354.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004558	0	0.23380E-06	478173.9	3746354.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004559	0	0.23380E-06	478165.4	3746354.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0004560	0	0.23380E-06	478156.9	3746354.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0004561	0	0.23380E-06	478148.4	3746354.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0004562	0	0.23380E-06	478139.9	3746354.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0004563	0	0.23380E-06	478131.4	3746354.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004564	0	0.23380E-06	478122.9	3746354.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004565	0	0.23380E-06	478114.4	3746354.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004566	0	0.23380E-06	478105.9	3746355.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0004567	0	0.23380E-06	478097.4	3746355.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0004568	0	0.23380E-06	478088.9	3746355.1	447.0	0.00	3.95	1.86	YES	HROFDY
L0004569	0	0.23380E-06	478080.4	3746355.1	447.0	0.00	3.95	1.86	YES	HROFDY
L0004570	0	0.23380E-06	478071.9	3746355.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004571	0	0.23380E-06	478063.4	3746355.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004572	0	0.23380E-06	478054.9	3746355.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004573	0	0.23380E-06	478046.4	3746355.3	447.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID	PART. CATS.	(GRAMS/SEC)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)	SOURCE	SCALAR VARY BY
L0004574	0	0.23380E-06	478037.9	3746355.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0004575	0	0.23380E-06	478029.4	3746355.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004576	0	0.23380E-06	478020.9	3746355.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004577	0	0.23380E-06	478012.4	3746355.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004578	0	0.23380E-06	478003.9	3746355.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004579	0	0.23380E-06	477995.4	3746355.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004580	0	0.23380E-06	477986.9	3746355.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004581	0	0.23380E-06	477978.4	3746355.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004582	0	0.23380E-06	477969.9	3746355.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0004583	0	0.23380E-06	477961.4	3746355.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0004584	0	0.23380E-06	477952.9	3746355.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0004585	0	0.23380E-06	477944.4	3746355.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0004586	0	0.23380E-06	477935.9	3746355.8	447.1	0.00	3.95	1.86	YES	HROFDY
L0004587	0	0.23380E-06	477927.4	3746355.9	447.4	0.00	3.95	1.86	YES	HROFDY
L0004588	0	0.23380E-06	477918.9	3746355.9	447.7	0.00	3.95	1.86	YES	HROFDY
L0004589	0	0.23380E-06	477910.4	3746356.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0004590	0	0.23380E-06	477901.9	3746356.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0004591	0	0.23380E-06	477893.4	3746356.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0004592	0	0.23380E-06	477884.9	3746356.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0004593	0	0.23380E-06	477876.4	3746356.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0004594	0	0.23380E-06	477867.9	3746356.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0004595	0	0.23380E-06	477859.4	3746356.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0004596	0	0.23380E-06	477850.9	3746356.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0004597	0	0.23380E-06	477842.4	3746356.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0004598	0	0.23380E-06	477833.9	3746356.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0004599	0	0.23380E-06	477825.4	3746356.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0004600	0	0.23380E-06	477816.9	3746356.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0004601	0	0.23380E-06	477808.4	3746356.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0004602	0	0.23380E-06	477799.9	3746356.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0004603	0	0.23380E-06	477791.4	3746356.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0004604	0	0.23380E-06	477782.9	3746356.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0004605	0	0.23380E-06	477774.4	3746356.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0004606	0	0.23380E-06	477765.9	3746356.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0004607	0	0.23380E-06	477757.4	3746356.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0004608	0	0.23380E-06	477748.9	3746356.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0004609	0	0.23380E-06	477740.4	3746356.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0004610	0	0.23380E-06	477731.9	3746356.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0004611	0	0.23380E-06	477723.4	3746356.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0004612	0	0.23380E-06	477714.9	3746357.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0004613	0	0.23380E-06	477706.4	3746357.0	448.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004614	0	0.23380E-06	477697.9	3746357.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0004615	0	0.23380E-06	477689.4	3746357.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0004616	0	0.23380E-06	477680.9	3746357.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0004617	0	0.23380E-06	477672.4	3746357.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0004618	0	0.23380E-06	477663.9	3746357.2	448.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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L0004619	0	0.23380E-06	477655.4	3746357.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0004620	0	0.23380E-06	477646.9	3746357.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0004621	0	0.23380E-06	477638.4	3746357.3	448.1	0.00	3.95	1.86	YES	HROFDY
L0004622	0	0.23380E-06	477629.9	3746357.4	448.3	0.00	3.95	1.86	YES	HROFDY
L0004623	0	0.23380E-06	477621.4	3746357.5	448.6	0.00	3.95	1.86	YES	HROFDY
L0004624	0	0.23380E-06	477612.9	3746357.7	448.9	0.00	3.95	1.86	YES	HROFDY
L0004625	0	0.23380E-06	477604.4	3746357.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0004626	0	0.23380E-06	477595.9	3746358.1	449.0	0.00	3.95	1.86	YES	HROFDY
L0004627	0	0.23380E-06	477587.4	3746358.3	449.0	0.00	3.95	1.86	YES	HROFDY
L0004628	0	0.23380E-06	477578.9	3746358.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0004629	0	0.23380E-06	477570.4	3746358.6	449.0	0.00	3.95	1.86	YES	HROFDY
L0004630	0	0.23380E-06	477561.9	3746358.8	449.0	0.00	3.95	1.86	YES	HROFDY
L0004631	0	0.23380E-06	477553.4	3746359.0	449.0	0.00	3.95	1.86	YES	HROFDY
L0004632	0	0.23380E-06	477544.9	3746359.2	449.0	0.00	3.95	1.86	YES	HROFDY
L0004633	0	0.23380E-06	477536.4	3746359.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0004634	0	0.23380E-06	477527.9	3746359.6	449.0	0.00	3.95	1.86	YES	HROFDY
L0004635	0	0.23380E-06	477519.4	3746359.8	449.0	0.00	3.95	1.86	YES	HROFDY
L0004636	0	0.23380E-06	477510.9	3746360.0	449.0	0.00	3.95	1.86	YES	HROFDY
L0004637	0	0.23380E-06	477502.4	3746360.1	449.0	0.00	3.95	1.86	YES	HROFDY
L0004638	0	0.23380E-06	477493.9	3746360.3	449.0	0.00	3.95	1.86	YES	HROFDY
L0004639	0	0.23380E-06	477485.4	3746360.5	449.2	0.00	3.95	1.86	YES	HROFDY
L0004640	0	0.23380E-06	477476.9	3746360.8	449.4	0.00	3.95	1.86	YES	HROFDY
L0004641	0	0.23380E-06	477468.8	3746363.3	449.7	0.00	3.95	1.86	YES	HROFDY
L0004642	0	0.23380E-06	477460.7	3746365.9	450.0	0.00	3.95	1.86	YES	HROFDY
L0004643	0	0.23380E-06	477452.6	3746368.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0004644	0	0.23380E-06	477444.5	3746371.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0004645	0	0.23380E-06	477436.4	3746373.6	450.0	0.00	3.95	1.86	YES	HROFDY
L0004646	0	0.23380E-06	477428.3	3746376.1	450.0	0.00	3.95	1.86	YES	HROFDY
L0004647	0	0.23380E-06	477420.2	3746378.7	450.0	0.00	3.95	1.86	YES	HROFDY
L0004648	0	0.23380E-06	477412.1	3746381.3	450.0	0.00	3.95	1.86	YES	HROFDY
L0004649	0	0.23380E-06	477404.0	3746383.8	450.0	0.00	3.95	1.86	YES	HROFDY
L0004650	0	0.23380E-06	477395.9	3746386.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0004651	0	0.23380E-06	477388.2	3746390.1	450.0	0.00	3.95	1.86	YES	HROFDY
L0004652	0	0.23380E-06	477380.6	3746393.8	450.0	0.00	3.95	1.86	YES	HROFDY
L0004653	0	0.23380E-06	477372.9	3746397.6	450.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004654	0	0.23380E-06	477365.3	3746401.3	450.0	0.00	3.95	1.86	YES	HROFDY
L0004655	0	0.23380E-06	477357.7	3746405.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0004656	0	0.23380E-06	477350.0	3746408.7	450.0	0.00	3.95	1.86	YES	HROFDY
L0004657	0	0.23380E-06	477342.4	3746412.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0004658	0	0.23380E-06	477334.7	3746416.1	450.0	0.00	3.95	1.86	YES	HROFDY
L0004659	0	0.23380E-06	477328.2	3746421.6	450.0	0.00	3.95	1.86	YES	HROFDY
L0004660	0	0.23380E-06	477321.6	3746427.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0004661	0	0.23380E-06	477315.1	3746432.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0004662	0	0.23380E-06	477308.5	3746437.8	450.0	0.00	3.95	1.86	YES	HROFDY
L0004663	0	0.23380E-06	477302.0	3746443.3	450.0	0.00	3.95	1.86	YES	HROFDY
L0004664	0	0.23380E-06	477295.1	3746448.2	450.0	0.00	3.95	1.86	YES	HROFDY
L0004665	0	0.23380E-06	477288.2	3746453.1	450.0	0.00	3.95	1.86	YES	HROFDY
L0004666	0	0.23380E-06	477281.2	3746458.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0004667	0	0.23380E-06	477274.3	3746462.9	450.0	0.00	3.95	1.86	YES	HROFDY
L0004668	0	0.23380E-06	477267.3	3746467.8	450.0	0.00	3.95	1.86	YES	HROFDY

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L0004669	0	0.23380E-06	477260.3	3746472.7	450.0	0.00	3.95	1.86	YES	HROFDY
L0004670	0	0.23380E-06	477253.4	3746477.5	450.0	0.00	3.95	1.86	YES	HROFDY
L0004671	0	0.23380E-06	477246.4	3746482.4	450.1	0.00	3.95	1.86	YES	HROFDY
L0004672	0	0.23380E-06	477239.5	3746487.3	450.2	0.00	3.95	1.86	YES	HROFDY
L0004673	0	0.23380E-06	477232.5	3746492.2	450.3	0.00	3.95	1.86	YES	HROFDY
L0004674	0	0.23380E-06	477225.5	3746497.1	450.2	0.00	3.95	1.86	YES	HROFDY
L0004675	0	0.23380E-06	477218.6	3746501.9	450.2	0.00	3.95	1.86	YES	HROFDY
L0004676	0	0.23380E-06	477211.6	3746506.8	450.3	0.00	3.95	1.86	YES	HROFDY
L0004677	0	0.23380E-06	477204.7	3746511.7	450.5	0.00	3.95	1.86	YES	HROFDY
L0004678	0	0.23380E-06	477197.7	3746516.6	450.7	0.00	3.95	1.86	YES	HROFDY
L0004679	0	0.23380E-06	477190.7	3746521.5	451.0	0.00	3.95	1.86	YES	HROFDY
L0004680	0	0.23380E-06	477183.0	3746524.7	451.0	0.00	3.95	1.86	YES	HROFDY
L0004681	0	0.23380E-06	477174.8	3746526.9	451.0	0.00	3.95	1.86	YES	HROFDY
L0004682	0	0.23380E-06	477166.6	3746529.1	451.0	0.00	3.95	1.86	YES	HROFDY
L0004683	0	0.23380E-06	477158.4	3746531.3	451.0	0.00	3.95	1.86	YES	HROFDY
L0004684	0	0.23380E-06	477150.2	3746533.5	451.0	0.00	3.95	1.86	YES	HROFDY
L0004685	0	0.23380E-06	477142.0	3746535.8	451.0	0.00	3.95	1.86	YES	HROFDY
L0004686	0	0.23380E-06	477133.8	3746538.0	451.0	0.00	3.95	1.86	YES	HROFDY
L0004687	0	0.23380E-06	477125.6	3746540.2	451.0	0.00	3.95	1.86	YES	HROFDY
L0004688	0	0.23380E-06	477117.3	3746542.1	451.0	0.00	3.95	1.86	YES	HROFDY
L0004689	0	0.23380E-06	477108.8	3746542.7	451.0	0.00	3.95	1.86	YES	HROFDY
L0004690	0	0.23380E-06	477100.3	3746543.3	451.0	0.00	3.95	1.86	YES	HROFDY
L0004691	0	0.23380E-06	477091.9	3746543.9	451.0	0.00	3.95	1.86	YES	HROFDY
L0004692	0	0.23380E-06	477083.4	3746544.5	451.0	0.00	3.95	1.86	YES	HROFDY
L0004693	0	0.23380E-06	477074.9	3746545.1	451.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004694	0	0.23380E-06	477066.4	3746545.7	451.1	0.00	3.95	1.86	YES	HROFDY
L0004695	0	0.23380E-06	477058.0	3746546.3	451.3	0.00	3.95	1.86	YES	HROFDY
L0004696	0	0.23380E-06	477049.5	3746546.9	451.4	0.00	3.95	1.86	YES	HROFDY
L0004697	0	0.23380E-06	477041.0	3746547.5	451.6	0.00	3.95	1.86	YES	HROFDY
L0004698	0	0.23380E-06	477032.5	3746547.7	451.7	0.00	3.95	1.86	YES	HROFDY
L0004699	0	0.23380E-06	477024.0	3746547.8	451.8	0.00	3.95	1.86	YES	HROFDY
L0004700	0	0.23380E-06	477015.5	3746548.0	451.9	0.00	3.95	1.86	YES	HROFDY
L0004701	0	0.23380E-06	477007.0	3746548.1	452.0	0.00	3.95	1.86	YES	HROFDY
L0004702	0	0.23380E-06	476998.5	3746548.3	452.0	0.00	3.95	1.86	YES	HROFDY
L0004703	0	0.23380E-06	476990.0	3746548.4	452.0	0.00	3.95	1.86	YES	HROFDY
L0004704	0	0.23380E-06	476981.5	3746548.6	452.0	0.00	3.95	1.86	YES	HROFDY
L0004705	0	0.23380E-06	476973.0	3746548.7	452.0	0.00	3.95	1.86	YES	HROFDY
L0004706	0	0.23380E-06	476964.5	3746548.9	452.0	0.00	3.95	1.86	YES	HROFDY
L0004707	0	0.23380E-06	476956.0	3746549.1	452.0	0.00	3.95	1.86	YES	HROFDY
L0004708	0	0.23380E-06	476947.5	3746549.2	452.0	0.00	3.95	1.86	YES	HROFDY
L0004709	0	0.23380E-06	476939.0	3746549.4	452.0	0.00	3.95	1.86	YES	HROFDY
L0004710	0	0.23380E-06	476930.5	3746549.5	452.0	0.00	3.95	1.86	YES	HROFDY
L0004711	0	0.23380E-06	476922.0	3746549.8	452.0	0.00	3.95	1.86	YES	HROFDY
L0004712	0	0.23380E-06	476913.5	3746550.0	452.1	0.00	3.95	1.86	YES	HROFDY
L0004713	0	0.23380E-06	476905.0	3746550.2	452.3	0.00	3.95	1.86	YES	HROFDY
L0004714	0	0.23380E-06	476896.5	3746550.4	452.4	0.00	3.95	1.86	YES	HROFDY
L0004715	0	0.23380E-06	476888.0	3746550.6	452.6	0.00	3.95	1.86	YES	HROFDY
L0004716	0	0.23380E-06	476879.5	3746550.8	452.7	0.00	3.95	1.86	YES	HROFDY
L0004717	0	0.23380E-06	476871.0	3746551.0	452.8	0.00	3.95	1.86	YES	HROFDY
L0004718	0	0.23380E-06	476862.5	3746551.2	453.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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L0004719	0	0.23380E-06	476854.0	3746551.5	453.0	0.00	3.95	1.86	YES	HROFDY
L0004720	0	0.23380E-06	476845.5	3746551.7	453.0	0.00	3.95	1.86	YES	HROFDY
L0004721	0	0.23380E-06	476837.0	3746551.9	453.0	0.00	3.95	1.86	YES	HROFDY
L0004722	0	0.23380E-06	476828.5	3746552.1	453.0	0.00	3.95	1.86	YES	HROFDY
L0004723	0	0.23380E-06	476820.0	3746552.3	453.0	0.00	3.95	1.86	YES	HROFDY
L0004724	0	0.23380E-06	476811.6	3746552.5	453.0	0.00	3.95	1.86	YES	HROFDY
L0004725	0	0.23380E-06	476803.1	3746552.7	453.0	0.00	3.95	1.86	YES	HROFDY
L0004726	0	0.23380E-06	476794.6	3746552.9	453.0	0.00	3.95	1.86	YES	HROFDY
L0004727	0	0.23380E-06	476786.1	3746553.1	454.0	0.00	3.95	1.86	YES	HROFDY
L0004728	0	0.23380E-06	476777.6	3746552.3	454.0	0.00	3.95	1.86	YES	HROFDY
L0004729	0	0.23380E-06	476769.1	3746551.4	454.0	0.00	3.95	1.86	YES	HROFDY
L0004730	0	0.23380E-06	476760.7	3746550.6	454.0	0.00	3.95	1.86	YES	HROFDY
L0004731	0	0.23380E-06	476752.2	3746549.8	454.0	0.00	3.95	1.86	YES	HROFDY
L0004732	0	0.23380E-06	476743.7	3746549.3	454.0	0.00	3.95	1.86	YES	HROFDY
L0004733	0	0.23380E-06	476735.2	3746549.2	454.2	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004734	0	0.23380E-06	476726.7	3746549.0	454.4	0.00	3.95	1.86	YES	HROFDY
L0004735	0	0.23380E-06	476718.2	3746548.9	454.7	0.00	3.95	1.86	YES	HROFDY
L0004736	0	0.23380E-06	476709.7	3746548.8	455.0	0.00	3.95	1.86	YES	HROFDY
L0004737	0	0.23380E-06	476701.2	3746548.6	455.0	0.00	3.95	1.86	YES	HROFDY
L0004738	0	0.23380E-06	476692.7	3746548.5	455.0	0.00	3.95	1.86	YES	HROFDY
L0004739	0	0.23380E-06	476684.2	3746548.3	455.0	0.00	3.95	1.86	YES	HROFDY
L0004740	0	0.23380E-06	476675.7	3746548.2	455.0	0.00	3.95	1.86	YES	HROFDY
L0004741	0	0.23380E-06	476667.2	3746548.0	455.0	0.00	3.95	1.86	YES	HROFDY
L0004742	0	0.23380E-06	476658.7	3746547.9	455.0	0.00	3.95	1.86	YES	HROFDY
L0004743	0	0.23380E-06	476650.2	3746547.7	455.0	0.00	3.95	1.86	YES	HROFDY
L0004744	0	0.23380E-06	476641.8	3746547.6	455.2	0.00	3.95	1.86	YES	HROFDY
L0004745	0	0.23380E-06	476633.9	3746550.3	455.3	0.00	3.95	1.86	YES	HROFDY
L0004746	0	0.23380E-06	476626.3	3746554.1	455.3	0.00	3.95	1.86	YES	HROFDY
L0004747	0	0.23380E-06	476618.7	3746557.9	455.3	0.00	3.95	1.86	YES	HROFDY
L0004748	0	0.23380E-06	476611.1	3746561.7	455.4	0.00	3.95	1.86	YES	HROFDY
L0004749	0	0.23380E-06	476603.5	3746565.5	455.6	0.00	3.95	1.86	YES	HROFDY
L0004750	0	0.23380E-06	476596.1	3746569.7	455.8	0.00	3.95	1.86	YES	HROFDY
L0004751	0	0.23380E-06	476589.1	3746574.5	456.0	0.00	3.95	1.86	YES	HROFDY
L0004752	0	0.23380E-06	476582.1	3746579.4	456.0	0.00	3.95	1.86	YES	HROFDY
L0004753	0	0.23380E-06	476575.2	3746584.2	456.0	0.00	3.95	1.86	YES	HROFDY
L0004754	0	0.23380E-06	476568.2	3746589.1	456.0	0.00	3.95	1.86	YES	HROFDY
L0004755	0	0.23380E-06	476561.2	3746593.9	456.0	0.00	3.95	1.86	YES	HROFDY
L0004756	0	0.23380E-06	476554.4	3746599.0	456.0	0.00	3.95	1.86	YES	HROFDY
L0004757	0	0.23380E-06	476548.2	3746604.8	456.0	0.00	3.95	1.86	YES	HROFDY
L0004758	0	0.23380E-06	476542.1	3746610.7	456.0	0.00	3.95	1.86	YES	HROFDY
L0004759	0	0.23380E-06	476535.9	3746616.5	456.0	0.00	3.95	1.86	YES	HROFDY
L0004760	0	0.23380E-06	476529.7	3746622.4	456.0	0.00	3.95	1.86	YES	HROFDY
L0004761	0	0.23380E-06	476523.6	3746628.2	456.0	0.00	3.95	1.86	YES	HROFDY
L0004762	0	0.23380E-06	476517.7	3746634.3	456.0	0.00	3.95	1.86	YES	HROFDY
L0004763	0	0.23380E-06	476514.0	3746642.0	456.0	0.00	3.95	1.86	YES	HROFDY
L0004764	0	0.23380E-06	476510.3	3746649.6	456.0	0.00	3.95	1.86	YES	HROFDY
L0004765	0	0.23380E-06	476506.7	3746657.3	456.0	0.00	3.95	1.86	YES	HROFDY
L0004766	0	0.23380E-06	476503.0	3746665.0	456.0	0.00	3.95	1.86	YES	HROFDY
L0004767	0	0.23380E-06	476499.3	3746672.6	456.0	0.00	3.95	1.86	YES	HROFDY
L0004768	0	0.23380E-06	476495.6	3746680.3	456.1	0.00	3.95	1.86	YES	HROFDY

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L0004769	0	0.23380E-06	476492.2	3746688.1	456.3	0.00	3.95	1.86	YES	HROFDY
L0004770	0	0.23380E-06	476488.7	3746695.8	456.4	0.00	3.95	1.86	YES	HROFDY
L0004771	0	0.23380E-06	476485.3	3746703.6	456.5	0.00	3.95	1.86	YES	HROFDY
L0004772	0	0.23380E-06	476481.8	3746711.4	456.6	0.00	3.95	1.86	YES	HROFDY
L0004773	0	0.23380E-06	476478.4	3746719.1	456.7	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004774	0	0.23380E-06	476474.9	3746726.9	456.5	0.00	3.95	1.86	YES	HROFDY
L0004775	0	0.23380E-06	476471.5	3746734.7	456.4	0.00	3.95	1.86	YES	HROFDY
L0004776	0	0.23380E-06	476468.0	3746742.4	456.2	0.00	3.95	1.86	YES	HROFDY
L0004777	0	0.23380E-06	476465.1	3746750.4	456.2	0.00	3.95	1.86	YES	HROFDY
L0004778	0	0.23380E-06	476463.0	3746758.6	456.2	0.00	3.95	1.86	YES	HROFDY
L0004779	0	0.23380E-06	476461.0	3746766.9	456.3	0.00	3.95	1.86	YES	HROFDY
L0004780	0	0.23380E-06	476458.9	3746775.1	456.4	0.00	3.95	1.86	YES	HROFDY
L0004781	0	0.23380E-06	476456.8	3746783.4	456.4	0.00	3.95	1.86	YES	HROFDY
L0004782	0	0.23380E-06	476454.8	3746791.6	456.5	0.00	3.95	1.86	YES	HROFDY
L0004783	0	0.23380E-06	476452.7	3746799.9	456.6	0.00	3.95	1.86	YES	HROFDY
L0004784	0	0.23380E-06	476450.7	3746808.1	456.6	0.00	3.95	1.86	YES	HROFDY
L0004785	0	0.23380E-06	476448.6	3746816.3	456.5	0.00	3.95	1.86	YES	HROFDY
L0004786	0	0.23380E-06	476446.5	3746824.6	456.3	0.00	3.95	1.86	YES	HROFDY
L0004787	0	0.23380E-06	476444.5	3746832.8	456.1	0.00	3.95	1.86	YES	HROFDY
L0004788	0	0.23380E-06	476442.4	3746841.1	456.0	0.00	3.95	1.86	YES	HROFDY
L0004789	0	0.23380E-06	476438.2	3746848.2	456.1	0.00	3.95	1.86	YES	HROFDY
L0004790	0	0.23380E-06	476432.7	3746854.7	456.2	0.00	3.95	1.86	YES	HROFDY
L0004791	0	0.23380E-06	476427.2	3746861.1	456.4	0.00	3.95	1.86	YES	HROFDY
L0004792	0	0.23380E-06	476421.6	3746867.6	456.6	0.00	3.95	1.86	YES	HROFDY
L0004793	0	0.23380E-06	476416.1	3746874.1	456.6	0.00	3.95	1.86	YES	HROFDY
L0004794	0	0.23380E-06	476410.6	3746880.5	456.5	0.00	3.95	1.86	YES	HROFDY
L0004795	0	0.23380E-06	476405.0	3746887.0	456.4	0.00	3.95	1.86	YES	HROFDY
L0004796	0	0.23380E-06	476399.5	3746893.4	456.4	0.00	3.95	1.86	YES	HROFDY
L0004797	0	0.23380E-06	476393.5	3746899.4	456.5	0.00	3.95	1.86	YES	HROFDY
L0004798	0	0.23380E-06	476387.0	3746904.8	456.5	0.00	3.95	1.86	YES	HROFDY
L0004799	0	0.23380E-06	476380.5	3746910.3	456.5	0.00	3.95	1.86	YES	HROFDY
L0004800	0	0.23380E-06	476374.0	3746915.8	456.5	0.00	3.95	1.86	YES	HROFDY
L0004801	0	0.23380E-06	476367.5	3746921.3	456.5	0.00	3.95	1.86	YES	HROFDY
L0004802	0	0.23380E-06	476360.9	3746926.5	456.6	0.00	3.95	1.86	YES	HROFDY
L0004803	0	0.23380E-06	476352.7	3746928.8	456.8	0.00	3.95	1.86	YES	HROFDY
L0004804	0	0.23380E-06	476344.5	3746931.0	456.9	0.00	3.95	1.86	YES	HROFDY
L0004805	0	0.23380E-06	476336.3	3746933.3	456.9	0.00	3.95	1.86	YES	HROFDY
L0004806	0	0.23380E-06	476328.1	3746935.5	456.9	0.00	3.95	1.86	YES	HROFDY
L0004807	0	0.23380E-06	476319.9	3746937.7	457.0	0.00	3.95	1.86	YES	HROFDY
L0004808	0	0.23380E-06	476311.4	3746938.7	457.0	0.00	3.95	1.86	YES	HROFDY
L0004809	0	0.23380E-06	476303.0	3746939.8	457.0	0.00	3.95	1.86	YES	HROFDY
L0004810	0	0.23380E-06	476294.6	3746940.8	457.0	0.00	3.95	1.86	YES	HROFDY
L0004811	0	0.23380E-06	476286.1	3746941.9	457.0	0.00	3.95	1.86	YES	HROFDY
L0004812	0	0.23380E-06	476277.7	3746942.9	457.0	0.00	3.95	1.86	YES	HROFDY
L0004813	0	0.23380E-06	476269.3	3746944.0	457.0	0.00	3.95	1.86	YES	HROFDY

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004814	0	0.23380E-06	476260.8	3746945.0	457.0	0.00	3.95	1.86	YES	HROFDY
L0004815	0	0.23380E-06	476252.3	3746945.2	457.0	0.00	3.95	1.86	YES	HROFDY
L0004816	0	0.23380E-06	476243.8	3746945.3	457.0	0.00	3.95	1.86	YES	HROFDY
L0004817	0	0.23380E-06	476235.3	3746945.5	457.0	0.00	3.95	1.86	YES	HROFDY
L0004818	0	0.23380E-06	476226.8	3746945.6	457.0	0.00	3.95	1.86	YES	HROFDY
L0004819	0	0.23380E-06	476218.3	3746945.8	457.1	0.00	3.95	1.86	YES	HROFDY
L0004820	0	0.23380E-06	476209.8	3746945.9	457.2	0.00	3.95	1.86	YES	HROFDY
L0004821	0	0.23380E-06	476201.3	3746946.0	457.3	0.00	3.95	1.86	YES	HROFDY
L0004822	0	0.23380E-06	476192.8	3746946.2	457.5	0.00	3.95	1.86	YES	HROFDY
L0004823	0	0.23380E-06	476184.3	3746946.3	457.7	0.00	3.95	1.86	YES	HROFDY
L0004824	0	0.23380E-06	476175.8	3746946.4	457.9	0.00	3.95	1.86	YES	HROFDY
L0004825	0	0.23380E-06	476167.3	3746946.6	458.0	0.00	3.95	1.86	YES	HROFDY
L0004826	0	0.23380E-06	476158.8	3746946.7	458.0	0.00	3.95	1.86	YES	HROFDY
L0004827	0	0.23380E-06	476150.3	3746946.9	458.0	0.00	3.95	1.86	YES	HROFDY
L0004828	0	0.23380E-06	476141.8	3746947.0	458.0	0.00	3.95	1.86	YES	HROFDY
L0004829	0	0.23380E-06	476133.3	3746947.1	458.2	0.00	3.95	1.86	YES	HROFDY
L0004830	0	0.23380E-06	476124.8	3746947.3	458.5	0.00	3.95	1.86	YES	HROFDY
L0004831	0	0.23380E-06	476116.3	3746947.4	458.8	0.00	3.95	1.86	YES	HROFDY
L0004832	0	0.23380E-06	476107.8	3746947.5	459.0	0.00	3.95	1.86	YES	HROFDY
L0004833	0	0.23380E-06	476099.3	3746947.7	459.0	0.00	3.95	1.86	YES	HROFDY
L0004834	0	0.23380E-06	476090.8	3746947.8	459.0	0.00	3.95	1.86	YES	HROFDY
L0004835	0	0.23380E-06	476082.3	3746947.9	459.0	0.00	3.95	1.86	YES	HROFDY
L0004836	0	0.23380E-06	476073.8	3746948.1	459.2	0.00	3.95	1.86	YES	HROFDY
L0004837	0	0.23380E-06	476065.3	3746948.2	459.5	0.00	3.95	1.86	YES	HROFDY
L0004838	0	0.23380E-06	476056.8	3746948.4	459.8	0.00	3.95	1.86	YES	HROFDY
L0004839	0	0.23380E-06	476048.3	3746948.5	460.0	0.00	3.95	1.86	YES	HROFDY
L0004840	0	0.23380E-06	476039.8	3746948.6	460.0	0.00	3.95	1.86	YES	HROFDY
L0004841	0	0.23380E-06	476031.3	3746948.8	460.0	0.00	3.95	1.86	YES	HROFDY
L0004842	0	0.22150E-06	478284.5	3746785.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004843	0	0.22150E-06	478284.5	3746777.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004844	0	0.22150E-06	478284.6	3746768.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004845	0	0.22150E-06	478284.6	3746760.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004846	0	0.22150E-06	478284.6	3746751.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004847	0	0.22150E-06	478284.7	3746743.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004848	0	0.22150E-06	478284.7	3746734.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004849	0	0.22150E-06	478284.7	3746726.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004850	0	0.22150E-06	478284.8	3746717.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004851	0	0.22150E-06	478284.8	3746709.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004852	0	0.22150E-06	478284.8	3746700.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004853	0	0.22150E-06	478284.9	3746692.4	447.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0004854	0	0.22150E-06	478284.9	3746683.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004855	0	0.22150E-06	478284.9	3746675.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004856	0	0.22150E-06	478284.9	3746666.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004857	0	0.22150E-06	478285.0	3746658.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004858	0	0.22150E-06	478285.0	3746649.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004859	0	0.22150E-06	478285.0	3746641.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004860	0	0.22150E-06	478285.1	3746632.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004861	0	0.22150E-06	478285.1	3746624.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004862	0	0.22150E-06	478285.1	3746615.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004863	0	0.22150E-06	478285.2	3746607.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004864	0	0.22150E-06	478285.2	3746598.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004865	0	0.22150E-06	478285.2	3746590.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004866	0	0.22150E-06	478285.3	3746581.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004867	0	0.22150E-06	478285.3	3746573.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004868	0	0.22150E-06	478285.3	3746564.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004869	0	0.22150E-06	478285.3	3746556.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004870	0	0.22150E-06	478285.4	3746547.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004871	0	0.22150E-06	478285.4	3746539.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004872	0	0.22150E-06	478285.4	3746530.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004873	0	0.22150E-06	478285.5	3746522.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004874	0	0.22150E-06	478285.5	3746513.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004875	0	0.22150E-06	478285.5	3746505.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004876	0	0.22150E-06	478285.6	3746496.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004877	0	0.22150E-06	478285.6	3746488.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004878	0	0.22150E-06	478285.6	3746479.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004879	0	0.22150E-06	478285.7	3746471.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004880	0	0.22150E-06	478285.7	3746462.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004881	0	0.22150E-06	478285.7	3746454.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004882	0	0.22150E-06	478285.8	3746445.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004883	0	0.22150E-06	478285.8	3746437.4	446.8	0.00	3.95	1.86	YES	HROFDY
L0004884	0	0.22150E-06	478285.8	3746428.9	446.7	0.00	3.95	1.86	YES	HROFDY
L0004885	0	0.22150E-06	478285.8	3746420.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004886	0	0.22150E-06	478285.9	3746411.9	446.5	0.00	3.95	1.86	YES	HROFDY
L0004887	0	0.22150E-06	478285.9	3746403.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004888	0	0.22150E-06	478285.9	3746394.9	446.5	0.00	3.95	1.86	YES	HROFDY
L0004889	0	0.22150E-06	478286.0	3746386.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004890	0	0.22150E-06	478286.0	3746377.9	446.5	0.00	3.95	1.86	YES	HROFDY
L0004891	0	0.22150E-06	478286.0	3746369.4	446.5	0.00	3.95	1.86	YES	HROFDY
L0004892	0	0.22150E-06	478286.1	3746360.9	446.5	0.00	3.95	1.86	YES	HROFDY
L0004893	0	0.22150E-06	478284.4	3746354.1	446.5	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004894	0	0.22150E-06	478275.9	3746354.1	446.8	0.00	3.95	1.86	YES	HROFDY
L0004895	0	0.22150E-06	478267.4	3746354.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004896	0	0.22150E-06	478258.9	3746354.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004897	0	0.22150E-06	478250.4	3746354.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0004898	0	0.22150E-06	478241.9	3746354.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0004899	0	0.22150E-06	478233.4	3746354.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004900	0	0.22150E-06	478224.9	3746354.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004901	0	0.22150E-06	478216.4	3746354.4	447.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0004902	0	0.22150E-06	478207.9	3746354.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004903	0	0.22150E-06	478199.4	3746354.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004904	0	0.22150E-06	478190.9	3746354.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004905	0	0.22150E-06	478182.4	3746354.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004906	0	0.22150E-06	478173.9	3746354.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004907	0	0.22150E-06	478165.4	3746354.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0004908	0	0.22150E-06	478156.9	3746354.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0004909	0	0.22150E-06	478148.4	3746354.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0004910	0	0.22150E-06	478139.9	3746354.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0004911	0	0.22150E-06	478131.4	3746354.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004912	0	0.22150E-06	478122.9	3746354.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004913	0	0.22150E-06	478114.4	3746354.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0004914	0	0.22150E-06	478105.9	3746355.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0004915	0	0.22150E-06	478097.4	3746355.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0004916	0	0.22150E-06	478088.9	3746355.1	447.0	0.00	3.95	1.86	YES	HROFDY
L0004917	0	0.22150E-06	478080.4	3746355.1	447.0	0.00	3.95	1.86	YES	HROFDY
L0004918	0	0.22150E-06	478071.9	3746355.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004919	0	0.22150E-06	478063.4	3746355.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004920	0	0.22150E-06	478054.9	3746355.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0004921	0	0.22150E-06	478046.4	3746355.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0004922	0	0.22150E-06	478037.9	3746355.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0004923	0	0.22150E-06	478029.4	3746355.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004924	0	0.22150E-06	478020.9	3746355.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0004925	0	0.22150E-06	478012.4	3746355.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004926	0	0.22150E-06	478003.9	3746355.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004927	0	0.22150E-06	477995.4	3746355.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0004928	0	0.22150E-06	477986.9	3746355.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004929	0	0.22150E-06	477978.4	3746355.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0004930	0	0.22150E-06	477969.9	3746355.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0004931	0	0.22150E-06	477961.4	3746355.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0004932	0	0.22150E-06	477952.9	3746355.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0004933	0	0.22150E-06	477944.4	3746355.8	447.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** *** 06/30/16

*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004934	0	0.22150E-06	477935.9	3746355.8	447.1	0.00	3.95	1.86	YES	HROFDY
L0004935	0	0.22150E-06	477927.4	3746355.9	447.4	0.00	3.95	1.86	YES	HROFDY
L0004936	0	0.22150E-06	477918.9	3746355.9	447.7	0.00	3.95	1.86	YES	HROFDY
L0004937	0	0.22150E-06	477910.4	3746356.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0004938	0	0.22150E-06	477901.9	3746356.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0004939	0	0.22150E-06	477893.4	3746356.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0004940	0	0.22150E-06	477884.9	3746356.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0004941	0	0.22150E-06	477876.4	3746356.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0004942	0	0.22150E-06	477867.9	3746356.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0004943	0	0.22150E-06	477859.4	3746356.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0004944	0	0.22150E-06	477850.9	3746356.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0004945	0	0.22150E-06	477842.4	3746356.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0004946	0	0.22150E-06	477833.9	3746356.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0004947	0	0.22150E-06	477825.4	3746356.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0004948	0	0.22150E-06	477816.9	3746356.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0004949	0	0.22150E-06	477808.4	3746356.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0004950	0	0.22150E-06	477799.9	3746356.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0004951	0	0.22150E-06	477791.4	3746356.6	448.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0004952	0	0.22150E-06	477782.9	3746356.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0004953	0	0.22150E-06	477774.4	3746356.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0004954	0	0.22150E-06	477765.9	3746356.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0004955	0	0.22150E-06	477757.4	3746356.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0004956	0	0.22150E-06	477748.9	3746356.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0004957	0	0.22150E-06	477740.4	3746356.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0004958	0	0.22150E-06	477731.9	3746356.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0004959	0	0.22150E-06	477723.4	3746356.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0004960	0	0.22150E-06	477714.9	3746357.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0004961	0	0.22150E-06	477706.4	3746357.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0004962	0	0.22150E-06	477697.9	3746357.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0004963	0	0.22150E-06	477689.4	3746357.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0004964	0	0.22150E-06	477680.9	3746357.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0004965	0	0.22150E-06	477672.4	3746357.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0004966	0	0.22150E-06	477663.9	3746357.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0004967	0	0.22150E-06	477655.4	3746357.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0004968	0	0.22150E-06	477646.9	3746357.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0004969	0	0.22150E-06	477638.4	3746357.3	448.1	0.00	3.95	1.86	YES	HROFDY
L0004970	0	0.22150E-06	477629.9	3746357.4	448.3	0.00	3.95	1.86	YES	HROFDY
L0004971	0	0.22150E-06	477621.4	3746357.5	448.6	0.00	3.95	1.86	YES	HROFDY
L0004972	0	0.22150E-06	477612.9	3746357.7	448.9	0.00	3.95	1.86	YES	HROFDY
L0004973	0	0.22150E-06	477604.4	3746357.9	449.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0004974	0	0.22150E-06	477595.9	3746358.1	449.0	0.00	3.95	1.86	YES	HROFDY
L0004975	0	0.22150E-06	477587.4	3746358.3	449.0	0.00	3.95	1.86	YES	HROFDY
L0004976	0	0.22150E-06	477578.9	3746358.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0004977	0	0.22150E-06	477570.4	3746358.6	449.0	0.00	3.95	1.86	YES	HROFDY
L0004978	0	0.22150E-06	477561.9	3746358.8	449.0	0.00	3.95	1.86	YES	HROFDY
L0004979	0	0.22150E-06	477553.4	3746359.0	449.0	0.00	3.95	1.86	YES	HROFDY
L0004980	0	0.22150E-06	477544.9	3746359.2	449.0	0.00	3.95	1.86	YES	HROFDY
L0004981	0	0.22150E-06	477536.4	3746359.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0004982	0	0.22150E-06	477527.9	3746359.6	449.0	0.00	3.95	1.86	YES	HROFDY
L0004983	0	0.22150E-06	477519.4	3746359.8	449.0	0.00	3.95	1.86	YES	HROFDY
L0004984	0	0.22150E-06	477510.9	3746360.0	449.0	0.00	3.95	1.86	YES	HROFDY
L0004985	0	0.22150E-06	477502.4	3746360.1	449.0	0.00	3.95	1.86	YES	HROFDY
L0004986	0	0.22150E-06	477493.9	3746360.3	449.0	0.00	3.95	1.86	YES	HROFDY
L0004987	0	0.22150E-06	477485.4	3746360.5	449.2	0.00	3.95	1.86	YES	HROFDY
L0004988	0	0.22150E-06	477476.9	3746360.8	449.4	0.00	3.95	1.86	YES	HROFDY
L0004989	0	0.22150E-06	477468.8	3746363.3	449.7	0.00	3.95	1.86	YES	HROFDY
L0004990	0	0.22150E-06	477460.7	3746365.9	450.0	0.00	3.95	1.86	YES	HROFDY
L0004991	0	0.22150E-06	477452.6	3746368.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0004992	0	0.22150E-06	477444.5	3746371.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0004993	0	0.22150E-06	477436.4	3746373.6	450.0	0.00	3.95	1.86	YES	HROFDY
L0004994	0	0.22150E-06	477428.3	3746376.1	450.0	0.00	3.95	1.86	YES	HROFDY
L0004995	0	0.22150E-06	477420.2	3746378.7	450.0	0.00	3.95	1.86	YES	HROFDY
L0004996	0	0.22150E-06	477412.1	3746381.3	450.0	0.00	3.95	1.86	YES	HROFDY
L0004997	0	0.22150E-06	477404.0	3746383.8	450.0	0.00	3.95	1.86	YES	HROFDY
L0004998	0	0.22150E-06	477395.9	3746386.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0004999	0	0.22150E-06	477388.2	3746390.1	450.0	0.00	3.95	1.86	YES	HROFDY
L0005000	0	0.22150E-06	477380.6	3746393.8	450.0	0.00	3.95	1.86	YES	HROFDY
L0005001	0	0.22150E-06	477372.9	3746397.6	450.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0005002	0	0.22150E-06	477365.3	3746401.3	450.0	0.00	3.95	1.86	YES	HROFDY
L0005003	0	0.22150E-06	477357.7	3746405.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0005004	0	0.22150E-06	477350.0	3746408.7	450.0	0.00	3.95	1.86	YES	HROFDY
L0005005	0	0.22150E-06	477342.4	3746412.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0005006	0	0.22150E-06	477334.7	3746416.1	450.0	0.00	3.95	1.86	YES	HROFDY
L0005007	0	0.22150E-06	477328.2	3746421.6	450.0	0.00	3.95	1.86	YES	HROFDY
L0005008	0	0.22150E-06	477321.6	3746427.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0005009	0	0.22150E-06	477315.1	3746432.4	450.0	0.00	3.95	1.86	YES	HROFDY
L0005010	0	0.22150E-06	477308.5	3746437.8	450.0	0.00	3.95	1.86	YES	HROFDY
L0005011	0	0.22150E-06	477302.0	3746443.3	450.0	0.00	3.95	1.86	YES	HROFDY
L0005012	0	0.22150E-06	477295.1	3746448.2	450.0	0.00	3.95	1.86	YES	HROFDY
L0005013	0	0.22150E-06	477288.2	3746453.1	450.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005014	0	0.22150E-06	477281.2	3746458.0	450.0	0.00	3.95	1.86	YES	HROFDY
L0005015	0	0.22150E-06	477274.3	3746462.9	450.0	0.00	3.95	1.86	YES	HROFDY
L0005016	0	0.22150E-06	477267.3	3746467.8	450.0	0.00	3.95	1.86	YES	HROFDY
L0005017	0	0.22150E-06	477260.3	3746472.7	450.0	0.00	3.95	1.86	YES	HROFDY
L0005018	0	0.22150E-06	477253.4	3746477.5	450.0	0.00	3.95	1.86	YES	HROFDY
L0005019	0	0.22150E-06	477246.4	3746482.4	450.1	0.00	3.95	1.86	YES	HROFDY
L0005020	0	0.22150E-06	477239.5	3746487.3	450.2	0.00	3.95	1.86	YES	HROFDY
L0005021	0	0.22150E-06	477232.5	3746492.2	450.3	0.00	3.95	1.86	YES	HROFDY
L0005022	0	0.22150E-06	477225.5	3746497.1	450.2	0.00	3.95	1.86	YES	HROFDY
L0005023	0	0.22150E-06	477218.6	3746501.9	450.2	0.00	3.95	1.86	YES	HROFDY
L0005024	0	0.22150E-06	477211.6	3746506.8	450.3	0.00	3.95	1.86	YES	HROFDY
L0005025	0	0.22150E-06	477204.7	3746511.7	450.5	0.00	3.95	1.86	YES	HROFDY
L0005026	0	0.22150E-06	477197.7	3746516.6	450.7	0.00	3.95	1.86	YES	HROFDY
L0005027	0	0.22150E-06	477190.7	3746521.5	451.0	0.00	3.95	1.86	YES	HROFDY
L0005028	0	0.22150E-06	477183.0	3746524.7	451.0	0.00	3.95	1.86	YES	HROFDY
L0005029	0	0.22150E-06	477174.8	3746526.9	451.0	0.00	3.95	1.86	YES	HROFDY
L0005030	0	0.22150E-06	477166.6	3746529.1	451.0	0.00	3.95	1.86	YES	HROFDY
L0005031	0	0.22150E-06	477158.4	3746531.3	451.0	0.00	3.95	1.86	YES	HROFDY
L0005032	0	0.22150E-06	477150.2	3746533.5	451.0	0.00	3.95	1.86	YES	HROFDY
L0005033	0	0.22150E-06	477142.0	3746535.8	451.0	0.00	3.95	1.86	YES	HROFDY
L0005034	0	0.22150E-06	477133.8	3746538.0	451.0	0.00	3.95	1.86	YES	HROFDY
L0005035	0	0.22150E-06	477125.6	3746540.2	451.0	0.00	3.95	1.86	YES	HROFDY
L0005036	0	0.22150E-06	477117.3	3746542.1	451.0	0.00	3.95	1.86	YES	HROFDY
L0005037	0	0.22150E-06	477108.8	3746542.7	451.0	0.00	3.95	1.86	YES	HROFDY
L0005038	0	0.22150E-06	477100.3	3746543.3	451.0	0.00	3.95	1.86	YES	HROFDY
L0005039	0	0.22150E-06	477091.9	3746543.9	451.0	0.00	3.95	1.86	YES	HROFDY
L0005040	0	0.22150E-06	477083.4	3746544.5	451.0	0.00	3.95	1.86	YES	HROFDY
L0005041	0	0.22150E-06	477074.9	3746545.1	451.0	0.00	3.95	1.86	YES	HROFDY
L0005042	0	0.22150E-06	477066.4	3746545.7	451.1	0.00	3.95	1.86	YES	HROFDY
L0005043	0	0.22150E-06	477058.0	3746546.3	451.3	0.00	3.95	1.86	YES	HROFDY
L0005044	0	0.22150E-06	477049.5	3746546.9	451.4	0.00	3.95	1.86	YES	HROFDY
L0005045	0	0.22150E-06	477041.0	3746547.5	451.6	0.00	3.95	1.86	YES	HROFDY
L0005046	0	0.22150E-06	477032.5	3746547.7	451.7	0.00	3.95	1.86	YES	HROFDY
L0005047	0	0.22150E-06	477024.0	3746547.8	451.8	0.00	3.95	1.86	YES	HROFDY
L0005048	0	0.22150E-06	477015.5	3746548.0	451.9	0.00	3.95	1.86	YES	HROFDY
L0005049	0	0.22150E-06	477007.0	3746548.1	452.0	0.00	3.95	1.86	YES	HROFDY
L0005050	0	0.22150E-06	476998.5	3746548.3	452.0	0.00	3.95	1.86	YES	HROFDY
L0005051	0	0.22150E-06	476990.0	3746548.4	452.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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L0005052	0	0.22150E-06	476981.5	3746548.6	452.0	0.00	3.95	1.86	YES	HROFDY
L0005053	0	0.22150E-06	476973.0	3746548.7	452.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005054	0	0.22150E-06	476964.5	3746548.9	452.0	0.00	3.95	1.86	YES	HROFDY
L0005055	0	0.22150E-06	476956.0	3746549.1	452.0	0.00	3.95	1.86	YES	HROFDY
L0005056	0	0.22150E-06	476947.5	3746549.2	452.0	0.00	3.95	1.86	YES	HROFDY
L0005057	0	0.22150E-06	476939.0	3746549.4	452.0	0.00	3.95	1.86	YES	HROFDY
L0005058	0	0.22150E-06	476930.5	3746549.5	452.0	0.00	3.95	1.86	YES	HROFDY
L0005059	0	0.22150E-06	476922.0	3746549.8	452.0	0.00	3.95	1.86	YES	HROFDY
L0005060	0	0.22150E-06	476913.5	3746550.0	452.1	0.00	3.95	1.86	YES	HROFDY
L0005061	0	0.22150E-06	476905.0	3746550.2	452.3	0.00	3.95	1.86	YES	HROFDY
L0005062	0	0.22150E-06	476896.5	3746550.4	452.4	0.00	3.95	1.86	YES	HROFDY
L0005063	0	0.22150E-06	476888.0	3746550.6	452.6	0.00	3.95	1.86	YES	HROFDY
L0005064	0	0.22150E-06	476879.5	3746550.8	452.7	0.00	3.95	1.86	YES	HROFDY
L0005065	0	0.22150E-06	476871.0	3746551.0	452.8	0.00	3.95	1.86	YES	HROFDY
L0005066	0	0.22150E-06	476862.5	3746551.2	453.0	0.00	3.95	1.86	YES	HROFDY
L0005067	0	0.22150E-06	476854.0	3746551.5	453.0	0.00	3.95	1.86	YES	HROFDY
L0005068	0	0.22150E-06	476845.5	3746551.7	453.0	0.00	3.95	1.86	YES	HROFDY
L0005069	0	0.22150E-06	476837.0	3746551.9	453.0	0.00	3.95	1.86	YES	HROFDY
L0005070	0	0.22150E-06	476828.5	3746552.1	453.0	0.00	3.95	1.86	YES	HROFDY
L0005071	0	0.22150E-06	476820.0	3746552.3	453.0	0.00	3.95	1.86	YES	HROFDY
L0005072	0	0.22150E-06	476811.6	3746552.5	453.0	0.00	3.95	1.86	YES	HROFDY
L0005073	0	0.22150E-06	476803.1	3746552.7	453.0	0.00	3.95	1.86	YES	HROFDY
L0005074	0	0.22150E-06	476794.6	3746552.9	453.0	0.00	3.95	1.86	YES	HROFDY
L0005075	0	0.22150E-06	476786.1	3746553.1	454.0	0.00	3.95	1.86	YES	HROFDY
L0005076	0	0.22150E-06	476777.6	3746552.3	454.0	0.00	3.95	1.86	YES	HROFDY
L0005077	0	0.22150E-06	476769.1	3746551.4	454.0	0.00	3.95	1.86	YES	HROFDY
L0005078	0	0.22150E-06	476760.7	3746550.6	454.0	0.00	3.95	1.86	YES	HROFDY
L0005079	0	0.22150E-06	476752.2	3746549.8	454.0	0.00	3.95	1.86	YES	HROFDY
L0005080	0	0.22150E-06	476743.7	3746549.3	454.0	0.00	3.95	1.86	YES	HROFDY
L0005081	0	0.22150E-06	476735.2	3746549.2	454.2	0.00	3.95	1.86	YES	HROFDY
L0005082	0	0.22150E-06	476726.7	3746549.0	454.4	0.00	3.95	1.86	YES	HROFDY
L0005083	0	0.22150E-06	476718.2	3746548.9	454.7	0.00	3.95	1.86	YES	HROFDY
L0005084	0	0.22150E-06	476709.7	3746548.8	455.0	0.00	3.95	1.86	YES	HROFDY
L0005085	0	0.22150E-06	476701.2	3746548.6	455.0	0.00	3.95	1.86	YES	HROFDY
L0005086	0	0.22150E-06	476692.7	3746548.5	455.0	0.00	3.95	1.86	YES	HROFDY
L0005087	0	0.22150E-06	476684.2	3746548.3	455.0	0.00	3.95	1.86	YES	HROFDY
L0005088	0	0.22150E-06	476675.7	3746548.2	455.0	0.00	3.95	1.86	YES	HROFDY
L0005089	0	0.22150E-06	476667.2	3746548.0	455.0	0.00	3.95	1.86	YES	HROFDY
L0005090	0	0.22150E-06	476658.7	3746547.9	455.0	0.00	3.95	1.86	YES	HROFDY
L0005091	0	0.22150E-06	476650.2	3746547.7	455.0	0.00	3.95	1.86	YES	HROFDY
L0005092	0	0.22150E-06	476641.8	3746547.6	455.2	0.00	3.95	1.86	YES	HROFDY
L0005093	0	0.22150E-06	476633.9	3746550.3	455.3	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005094	0	0.22150E-06	476626.3	3746554.1	455.3	0.00	3.95	1.86	YES	HROFDY
L0005095	0	0.22150E-06	476618.7	3746557.9	455.3	0.00	3.95	1.86	YES	HROFDY
L0005096	0	0.22150E-06	476611.1	3746561.7	455.4	0.00	3.95	1.86	YES	HROFDY
L0005097	0	0.22150E-06	476603.5	3746565.5	455.6	0.00	3.95	1.86	YES	HROFDY
L0005098	0	0.22150E-06	476596.1	3746569.7	455.8	0.00	3.95	1.86	YES	HROFDY
L0005099	0	0.22150E-06	476589.1	3746574.5	456.0	0.00	3.95	1.86	YES	HROFDY
L0005100	0	0.22150E-06	476582.1	3746579.4	456.0	0.00	3.95	1.86	YES	HROFDY
L0005101	0	0.22150E-06	476575.2	3746584.2	456.0	0.00	3.95	1.86	YES	HROFDY
L0005102	0	0.22150E-06	476568.2	3746589.1	456.0	0.00	3.95	1.86	YES	HROFDY
L0005103	0	0.22150E-06	476561.2	3746593.9	456.0	0.00	3.95	1.86	YES	HROFDY
L0005104	0	0.22150E-06	476554.4	3746599.0	456.0	0.00	3.95	1.86	YES	HROFDY
L0005105	0	0.22150E-06	476548.2	3746604.8	456.0	0.00	3.95	1.86	YES	HROFDY
L0005106	0	0.22150E-06	476542.1	3746610.7	456.0	0.00	3.95	1.86	YES	HROFDY
L0005107	0	0.22150E-06	476535.9	3746616.5	456.0	0.00	3.95	1.86	YES	HROFDY
L0005108	0	0.22150E-06	476529.7	3746622.4	456.0	0.00	3.95	1.86	YES	HROFDY
L0005109	0	0.22150E-06	476523.6	3746628.2	456.0	0.00	3.95	1.86	YES	HROFDY
L0005110	0	0.22150E-06	476517.7	3746634.3	456.0	0.00	3.95	1.86	YES	HROFDY
L0005111	0	0.22150E-06	476514.0	3746642.0	456.0	0.00	3.95	1.86	YES	HROFDY
L0005112	0	0.22150E-06	476510.3	3746649.6	456.0	0.00	3.95	1.86	YES	HROFDY
L0005113	0	0.22150E-06	476506.7	3746657.3	456.0	0.00	3.95	1.86	YES	HROFDY
L0005114	0	0.22150E-06	476503.0	3746665.0	456.0	0.00	3.95	1.86	YES	HROFDY
L0005115	0	0.22150E-06	476499.3	3746672.6	456.0	0.00	3.95	1.86	YES	HROFDY
L0005116	0	0.22150E-06	476495.6	3746680.3	456.1	0.00	3.95	1.86	YES	HROFDY
L0005117	0	0.22150E-06	476492.2	3746688.1	456.3	0.00	3.95	1.86	YES	HROFDY
L0005118	0	0.22150E-06	476488.7	3746695.8	456.4	0.00	3.95	1.86	YES	HROFDY
L0005119	0	0.22150E-06	476485.3	3746703.6	456.5	0.00	3.95	1.86	YES	HROFDY
L0005120	0	0.22150E-06	476481.8	3746711.4	456.6	0.00	3.95	1.86	YES	HROFDY
L0005121	0	0.22150E-06	476478.4	3746719.1	456.7	0.00	3.95	1.86	YES	HROFDY
L0005122	0	0.22150E-06	476474.9	3746726.9	456.5	0.00	3.95	1.86	YES	HROFDY
L0005123	0	0.22150E-06	476471.5	3746734.7	456.4	0.00	3.95	1.86	YES	HROFDY
L0005124	0	0.22150E-06	476468.0	3746742.4	456.2	0.00	3.95	1.86	YES	HROFDY
L0005125	0	0.22150E-06	476465.1	3746750.4	456.2	0.00	3.95	1.86	YES	HROFDY
L0005126	0	0.22150E-06	476463.0	3746758.6	456.2	0.00	3.95	1.86	YES	HROFDY
L0005127	0	0.22150E-06	476461.0	3746766.9	456.3	0.00	3.95	1.86	YES	HROFDY
L0005128	0	0.22150E-06	476458.9	3746775.1	456.4	0.00	3.95	1.86	YES	HROFDY
L0005129	0	0.22150E-06	476456.8	3746783.4	456.4	0.00	3.95	1.86	YES	HROFDY
L0005130	0	0.22150E-06	476454.8	3746791.6	456.5	0.00	3.95	1.86	YES	HROFDY
L0005131	0	0.22150E-06	476452.7	3746799.9	456.6	0.00	3.95	1.86	YES	HROFDY
L0005132	0	0.22150E-06	476450.7	3746808.1	456.6	0.00	3.95	1.86	YES	HROFDY
L0005133	0	0.22150E-06	476448.6	3746816.3	456.5	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005134	0	0.22150E-06	476446.5	3746824.6	456.3	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0005135	0	0.22150E-06	476444.5	3746832.8	456.1	0.00	3.95	1.86	YES	HROFDY
L0005136	0	0.22150E-06	476442.4	3746841.1	456.0	0.00	3.95	1.86	YES	HROFDY
L0005137	0	0.22150E-06	476438.2	3746848.2	456.1	0.00	3.95	1.86	YES	HROFDY
L0005138	0	0.22150E-06	476432.7	3746854.7	456.2	0.00	3.95	1.86	YES	HROFDY
L0005139	0	0.22150E-06	476427.2	3746861.1	456.4	0.00	3.95	1.86	YES	HROFDY
L0005140	0	0.22150E-06	476421.6	3746867.6	456.6	0.00	3.95	1.86	YES	HROFDY
L0005141	0	0.22150E-06	476416.1	3746874.1	456.6	0.00	3.95	1.86	YES	HROFDY
L0005142	0	0.22150E-06	476410.6	3746880.5	456.5	0.00	3.95	1.86	YES	HROFDY
L0005143	0	0.22150E-06	476405.0	3746887.0	456.4	0.00	3.95	1.86	YES	HROFDY
L0005144	0	0.22150E-06	476399.5	3746893.4	456.4	0.00	3.95	1.86	YES	HROFDY
L0005145	0	0.22150E-06	476393.5	3746899.4	456.5	0.00	3.95	1.86	YES	HROFDY
L0005146	0	0.22150E-06	476387.0	3746904.8	456.5	0.00	3.95	1.86	YES	HROFDY
L0005147	0	0.22150E-06	476380.5	3746910.3	456.5	0.00	3.95	1.86	YES	HROFDY
L0005148	0	0.22150E-06	476374.0	3746915.8	456.5	0.00	3.95	1.86	YES	HROFDY
L0005149	0	0.22150E-06	476367.5	3746921.3	456.5	0.00	3.95	1.86	YES	HROFDY
L0005150	0	0.22150E-06	476360.9	3746926.5	456.6	0.00	3.95	1.86	YES	HROFDY
L0005151	0	0.22150E-06	476352.7	3746928.8	456.8	0.00	3.95	1.86	YES	HROFDY
L0005152	0	0.22150E-06	476344.5	3746931.0	456.9	0.00	3.95	1.86	YES	HROFDY
L0005153	0	0.22150E-06	476336.3	3746933.3	456.9	0.00	3.95	1.86	YES	HROFDY
L0005154	0	0.22150E-06	476328.1	3746935.5	456.9	0.00	3.95	1.86	YES	HROFDY
L0005155	0	0.22150E-06	476319.9	3746937.7	457.0	0.00	3.95	1.86	YES	HROFDY
L0005156	0	0.22150E-06	476311.4	3746938.7	457.0	0.00	3.95	1.86	YES	HROFDY
L0005157	0	0.22150E-06	476303.0	3746939.8	457.0	0.00	3.95	1.86	YES	HROFDY
L0005158	0	0.22150E-06	476294.6	3746940.8	457.0	0.00	3.95	1.86	YES	HROFDY
L0005159	0	0.22150E-06	476286.1	3746941.9	457.0	0.00	3.95	1.86	YES	HROFDY
L0005160	0	0.22150E-06	476277.7	3746942.9	457.0	0.00	3.95	1.86	YES	HROFDY
L0005161	0	0.22150E-06	476269.3	3746944.0	457.0	0.00	3.95	1.86	YES	HROFDY
L0005162	0	0.22150E-06	476260.8	3746945.0	457.0	0.00	3.95	1.86	YES	HROFDY
L0005163	0	0.22150E-06	476252.3	3746945.2	457.0	0.00	3.95	1.86	YES	HROFDY
L0005164	0	0.22150E-06	476243.8	3746945.3	457.0	0.00	3.95	1.86	YES	HROFDY
L0005165	0	0.22150E-06	476235.3	3746945.5	457.0	0.00	3.95	1.86	YES	HROFDY
L0005166	0	0.22150E-06	476226.8	3746945.6	457.0	0.00	3.95	1.86	YES	HROFDY
L0005167	0	0.22150E-06	476218.3	3746945.8	457.1	0.00	3.95	1.86	YES	HROFDY
L0005168	0	0.22150E-06	476209.8	3746945.9	457.2	0.00	3.95	1.86	YES	HROFDY
L0005169	0	0.22150E-06	476201.3	3746946.0	457.3	0.00	3.95	1.86	YES	HROFDY
L0005170	0	0.22150E-06	476192.8	3746946.2	457.5	0.00	3.95	1.86	YES	HROFDY
L0005171	0	0.22150E-06	476184.3	3746946.3	457.7	0.00	3.95	1.86	YES	HROFDY
L0005172	0	0.22150E-06	476175.8	3746946.4	457.9	0.00	3.95	1.86	YES	HROFDY
L0005173	0	0.22150E-06	476167.3	3746946.6	458.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005174	0	0.22150E-06	476158.8	3746946.7	458.0	0.00	3.95	1.86	YES	HROFDY
L0005175	0	0.22150E-06	476150.3	3746946.9	458.0	0.00	3.95	1.86	YES	HROFDY
L0005176	0	0.22150E-06	476141.8	3746947.0	458.0	0.00	3.95	1.86	YES	HROFDY
L0005177	0	0.22150E-06	476133.3	3746947.1	458.2	0.00	3.95	1.86	YES	HROFDY
L0005178	0	0.22150E-06	476124.8	3746947.3	458.5	0.00	3.95	1.86	YES	HROFDY
L0005179	0	0.22150E-06	476116.3	3746947.4	458.8	0.00	3.95	1.86	YES	HROFDY
L0005180	0	0.22150E-06	476107.8	3746947.5	459.0	0.00	3.95	1.86	YES	HROFDY
L0005181	0	0.22150E-06	476099.3	3746947.7	459.0	0.00	3.95	1.86	YES	HROFDY
L0005182	0	0.22150E-06	476090.8	3746947.8	459.0	0.00	3.95	1.86	YES	HROFDY
L0005183	0	0.22150E-06	476082.3	3746947.9	459.0	0.00	3.95	1.86	YES	HROFDY
L0005184	0	0.22150E-06	476073.8	3746948.1	459.2	0.00	3.95	1.86	YES	HROFDY

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L0005185	0	0.22150E-06	476065.3	3746948.2	459.5	0.00	3.95	1.86	YES	HROFDY
L0005186	0	0.22150E-06	476056.8	3746948.4	459.8	0.00	3.95	1.86	YES	HROFDY
L0005187	0	0.22150E-06	476048.3	3746948.5	460.0	0.00	3.95	1.86	YES	HROFDY
L0005188	0	0.22150E-06	476039.8	3746948.6	460.0	0.00	3.95	1.86	YES	HROFDY
L0005189	0	0.22150E-06	476031.3	3746948.8	460.0	0.00	3.95	1.86	YES	HROFDY
L0005190	0	0.12330E-07	479065.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005191	0	0.12330E-07	479057.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005192	0	0.12330E-07	479048.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005193	0	0.12330E-07	479040.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005194	0	0.12330E-07	479031.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005195	0	0.12330E-07	479023.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005196	0	0.12330E-07	479014.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005197	0	0.12330E-07	479006.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005198	0	0.12330E-07	478997.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005199	0	0.12330E-07	478989.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005200	0	0.12330E-07	478980.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005201	0	0.12330E-07	478972.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005202	0	0.12330E-07	478963.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005203	0	0.12330E-07	478955.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005204	0	0.12330E-07	478946.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005205	0	0.12330E-07	478938.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005206	0	0.12330E-07	478929.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005207	0	0.12330E-07	478921.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005208	0	0.12330E-07	478912.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005209	0	0.12330E-07	478904.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005210	0	0.12330E-07	478895.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005211	0	0.12330E-07	478887.2	3747774.7	448.1	0.00	3.95	1.86	YES	HROFDY
L0005212	0	0.12330E-07	478878.7	3747774.7	448.2	0.00	3.95	1.86	YES	HROFDY
L0005213	0	0.12330E-07	478870.2	3747774.7	448.3	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005214	0	0.12330E-07	478861.7	3747774.7	448.5	0.00	3.95	1.86	YES	HROFDY
L0005215	0	0.12330E-07	478853.2	3747774.7	448.7	0.00	3.95	1.86	YES	HROFDY
L0005216	0	0.12330E-07	478844.7	3747774.7	448.9	0.00	3.95	1.86	YES	HROFDY
L0005217	0	0.12330E-07	478836.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005218	0	0.12330E-07	478827.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005219	0	0.12330E-07	478819.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005220	0	0.12330E-07	478810.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005221	0	0.12330E-07	478802.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005222	0	0.12330E-07	478793.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005223	0	0.12330E-07	478785.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005224	0	0.12330E-07	478776.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005225	0	0.12330E-07	478768.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005226	0	0.12330E-07	478759.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005227	0	0.12330E-07	478751.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005228	0	0.12330E-07	478742.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005229	0	0.12330E-07	478734.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005230	0	0.12330E-07	478725.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005231	0	0.12330E-07	478717.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005232	0	0.12330E-07	478708.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005233	0	0.12330E-07	478700.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005234	0	0.12330E-07	478691.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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L0005235	0	0.12330E-07	478683.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005236	0	0.12330E-07	478674.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005237	0	0.12330E-07	478666.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005238	0	0.12330E-07	478657.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005239	0	0.12330E-07	478649.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005240	0	0.12330E-07	478640.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005241	0	0.12330E-07	478632.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005242	0	0.12330E-07	478623.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005243	0	0.12330E-07	478615.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005244	0	0.12330E-07	478606.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005245	0	0.12330E-07	478598.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005246	0	0.12330E-07	478589.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005247	0	0.12330E-07	478581.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005248	0	0.12330E-07	478572.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005249	0	0.12330E-07	478564.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005250	0	0.12330E-07	478555.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005251	0	0.12330E-07	478547.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005252	0	0.12330E-07	478538.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005253	0	0.12330E-07	478530.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005254	0	0.12330E-07	478521.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005255	0	0.12330E-07	478513.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005256	0	0.12330E-07	478504.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005257	0	0.12330E-07	478496.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005258	0	0.12330E-07	478487.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005259	0	0.12330E-07	478479.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005260	0	0.12330E-07	478470.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005261	0	0.12330E-07	478462.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005262	0	0.12330E-07	478453.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005263	0	0.12330E-07	478445.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005264	0	0.12330E-07	478436.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005265	0	0.12330E-07	478428.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005266	0	0.12330E-07	478419.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005267	0	0.12330E-07	478411.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005268	0	0.12330E-07	478402.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005269	0	0.12330E-07	478394.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005270	0	0.12330E-07	478385.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005271	0	0.12330E-07	478377.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005272	0	0.12330E-07	478368.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005273	0	0.12330E-07	478360.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005274	0	0.12330E-07	478351.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005275	0	0.12330E-07	478343.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005276	0	0.12330E-07	478334.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005277	0	0.12330E-07	478326.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005278	0	0.12330E-07	478317.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005279	0	0.12330E-07	478309.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005280	0	0.12330E-07	478300.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005281	0	0.12330E-07	478292.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005282	0	0.12330E-07	478283.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005283	0	0.12330E-07	478275.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005284	0	0.12330E-07	478274.1	3747767.4	449.0	0.00	3.95	1.86	YES	HROFDY

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L0005285	0	0.12330E-07	478274.2	3747758.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005286	0	0.12330E-07	478274.3	3747750.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005287	0	0.12330E-07	478274.4	3747741.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005288	0	0.12330E-07	478274.5	3747733.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005289	0	0.12330E-07	478274.6	3747724.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005290	0	0.12330E-07	478274.7	3747716.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005291	0	0.12330E-07	478274.8	3747707.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005292	0	0.12330E-07	478274.9	3747699.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005293	0	0.12330E-07	478275.0	3747690.9	449.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005294	0	0.12330E-07	478275.0	3747682.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005295	0	0.12330E-07	478275.1	3747673.9	448.9	0.00	3.95	1.86	YES	HROFDY
L0005296	0	0.12330E-07	478275.2	3747665.4	448.6	0.00	3.95	1.86	YES	HROFDY
L0005297	0	0.12330E-07	478275.3	3747656.9	448.4	0.00	3.95	1.86	YES	HROFDY
L0005298	0	0.12330E-07	478275.4	3747648.4	448.1	0.00	3.95	1.86	YES	HROFDY
L0005299	0	0.12330E-07	478275.5	3747639.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005300	0	0.12330E-07	478275.6	3747631.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005301	0	0.12330E-07	478275.7	3747622.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005302	0	0.12330E-07	478275.8	3747614.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005303	0	0.12330E-07	478275.9	3747605.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005304	0	0.12330E-07	478276.0	3747597.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005305	0	0.12330E-07	478276.1	3747588.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005306	0	0.12330E-07	478276.2	3747580.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005307	0	0.12330E-07	478276.3	3747571.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005308	0	0.12330E-07	478276.4	3747563.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005309	0	0.12330E-07	478276.5	3747554.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005310	0	0.12330E-07	478276.6	3747546.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005311	0	0.12330E-07	478276.7	3747537.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005312	0	0.12330E-07	478276.8	3747529.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005313	0	0.12330E-07	478276.9	3747520.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005314	0	0.12330E-07	478277.0	3747512.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005315	0	0.12330E-07	478277.1	3747503.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005316	0	0.12330E-07	478277.2	3747495.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005317	0	0.12330E-07	478277.3	3747486.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005318	0	0.12330E-07	478277.4	3747478.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005319	0	0.12330E-07	478277.5	3747469.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005320	0	0.12330E-07	478277.6	3747461.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005321	0	0.12330E-07	478277.7	3747452.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005322	0	0.12330E-07	478277.8	3747444.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005323	0	0.12330E-07	478277.9	3747435.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005324	0	0.12330E-07	478278.0	3747427.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005325	0	0.12330E-07	478278.1	3747418.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005326	0	0.12330E-07	478278.2	3747410.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005327	0	0.12330E-07	478278.3	3747401.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005328	0	0.12330E-07	478278.4	3747393.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005329	0	0.12330E-07	478278.5	3747384.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005330	0	0.12330E-07	478278.6	3747376.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005331	0	0.12330E-07	478278.7	3747367.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005332	0	0.12330E-07	478278.8	3747359.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005333	0	0.12330E-07	478278.9	3747350.9	448.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005334	0	0.12330E-07	478279.0	3747342.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005335	0	0.12330E-07	478279.1	3747333.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005336	0	0.12330E-07	478279.2	3747325.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005337	0	0.12330E-07	478279.2	3747316.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005338	0	0.12330E-07	478279.3	3747308.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005339	0	0.12330E-07	478279.4	3747299.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005340	0	0.12330E-07	478279.5	3747291.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005341	0	0.12330E-07	478279.6	3747282.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005342	0	0.12330E-07	478279.7	3747274.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005343	0	0.12330E-07	478279.8	3747265.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005344	0	0.12330E-07	478279.9	3747257.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005345	0	0.12330E-07	478280.0	3747248.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005346	0	0.12330E-07	478280.1	3747240.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005347	0	0.12330E-07	478280.2	3747231.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005348	0	0.12330E-07	478280.3	3747223.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005349	0	0.12330E-07	478280.4	3747214.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005350	0	0.12330E-07	478280.5	3747206.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005351	0	0.12330E-07	478280.6	3747197.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005352	0	0.12330E-07	478280.7	3747189.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005353	0	0.12330E-07	478280.8	3747180.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005354	0	0.12330E-07	478280.9	3747172.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005355	0	0.12330E-07	478281.0	3747163.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005356	0	0.12330E-07	478281.1	3747155.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005357	0	0.12330E-07	478281.2	3747146.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005358	0	0.12330E-07	478281.3	3747138.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005359	0	0.12330E-07	478281.4	3747129.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005360	0	0.12330E-07	478281.5	3747121.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005361	0	0.12330E-07	478281.6	3747112.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005362	0	0.12330E-07	478281.7	3747104.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005363	0	0.12330E-07	478281.8	3747095.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005364	0	0.12330E-07	478281.9	3747087.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005365	0	0.12330E-07	478282.0	3747078.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005366	0	0.12330E-07	478282.1	3747070.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005367	0	0.12330E-07	478282.2	3747061.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005368	0	0.12330E-07	478282.3	3747053.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005369	0	0.12330E-07	478282.4	3747044.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005370	0	0.12330E-07	478282.5	3747036.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005371	0	0.12330E-07	478282.6	3747028.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005372	0	0.12330E-07	478282.7	3747019.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005373	0	0.12330E-07	478282.8	3747011.0	448.0	0.00	3.95	1.86	YES	HROFDY

*** VOLUME SOURCE DATA ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005374	0	0.12330E-07	478282.9	3747002.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005375	0	0.12330E-07	478283.0	3746994.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005376	0	0.12330E-07	478283.1	3746985.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005377	0	0.12330E-07	478283.2	3746977.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005378	0	0.12330E-07	478283.3	3746968.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005379	0	0.12330E-07	478283.4	3746960.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005380	0	0.12330E-07	478283.5	3746951.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005381	0	0.12330E-07	478283.5	3746943.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005382	0	0.12330E-07	478283.6	3746934.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005383	0	0.12330E-07	478283.7	3746926.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005384	0	0.12330E-07	478283.8	3746917.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005385	0	0.12330E-07	478283.9	3746909.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005386	0	0.12330E-07	478284.0	3746900.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005387	0	0.12330E-07	478284.1	3746892.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005388	0	0.12330E-07	478284.2	3746883.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005389	0	0.12330E-07	478284.3	3746875.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005390	0	0.12330E-07	478284.4	3746866.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005391	0	0.12330E-07	478284.5	3746858.0	447.9	0.00	3.95	1.86	YES	HROFDY
L0005392	0	0.12330E-07	478284.6	3746849.5	447.7	0.00	3.95	1.86	YES	HROFDY
L0005393	0	0.12330E-07	478284.7	3746841.0	447.6	0.00	3.95	1.86	YES	HROFDY
L0005394	0	0.12330E-07	478284.8	3746832.5	447.4	0.00	3.95	1.86	YES	HROFDY
L0005395	0	0.12330E-07	478284.9	3746824.0	447.3	0.00	3.95	1.86	YES	HROFDY
L0005396	0	0.12330E-07	478285.0	3746815.5	447.2	0.00	3.95	1.86	YES	HROFDY
L0005397	0	0.12330E-07	478285.1	3746807.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0005398	0	0.12330E-07	478285.2	3746798.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0005399	0	0.12330E-07	478285.3	3746790.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0005400	0	0.12330E-07	478285.4	3746781.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0005401	0	0.12330E-07	478285.5	3746773.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0005402	0	0.35610E-07	479065.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005403	0	0.35610E-07	479057.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005404	0	0.35610E-07	479048.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005405	0	0.35610E-07	479040.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005406	0	0.35610E-07	479031.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005407	0	0.35610E-07	479023.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005408	0	0.35610E-07	479014.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005409	0	0.35610E-07	479006.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005410	0	0.35610E-07	478997.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005411	0	0.35610E-07	478989.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005412	0	0.35610E-07	478980.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005413	0	0.35610E-07	478972.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005414	0	0.35610E-07	478963.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005415	0	0.35610E-07	478955.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005416	0	0.35610E-07	478946.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005417	0	0.35610E-07	478938.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0005418	0	0.35610E-07	478929.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005419	0	0.35610E-07	478921.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005420	0	0.35610E-07	478912.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005421	0	0.35610E-07	478904.2	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005422	0	0.35610E-07	478895.7	3747774.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005423	0	0.35610E-07	478887.2	3747774.7	448.1	0.00	3.95	1.86	YES	HROFDY
L0005424	0	0.35610E-07	478878.7	3747774.7	448.2	0.00	3.95	1.86	YES	HROFDY
L0005425	0	0.35610E-07	478870.2	3747774.7	448.3	0.00	3.95	1.86	YES	HROFDY
L0005426	0	0.35610E-07	478861.7	3747774.7	448.5	0.00	3.95	1.86	YES	HROFDY
L0005427	0	0.35610E-07	478853.2	3747774.7	448.7	0.00	3.95	1.86	YES	HROFDY
L0005428	0	0.35610E-07	478844.7	3747774.7	448.9	0.00	3.95	1.86	YES	HROFDY
L0005429	0	0.35610E-07	478836.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005430	0	0.35610E-07	478827.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005431	0	0.35610E-07	478819.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005432	0	0.35610E-07	478810.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005433	0	0.35610E-07	478802.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005434	0	0.35610E-07	478793.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005435	0	0.35610E-07	478785.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005436	0	0.35610E-07	478776.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005437	0	0.35610E-07	478768.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005438	0	0.35610E-07	478759.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005439	0	0.35610E-07	478751.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005440	0	0.35610E-07	478742.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005441	0	0.35610E-07	478734.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005442	0	0.35610E-07	478725.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005443	0	0.35610E-07	478717.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005444	0	0.35610E-07	478708.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005445	0	0.35610E-07	478700.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005446	0	0.35610E-07	478691.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005447	0	0.35610E-07	478683.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005448	0	0.35610E-07	478674.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005449	0	0.35610E-07	478666.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005450	0	0.35610E-07	478657.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005451	0	0.35610E-07	478649.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005452	0	0.35610E-07	478640.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005453	0	0.35610E-07	478632.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005454	0	0.35610E-07	478623.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005455	0	0.35610E-07	478615.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005456	0	0.35610E-07	478606.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005457	0	0.35610E-07	478598.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005458	0	0.35610E-07	478589.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005459	0	0.35610E-07	478581.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005460	0	0.35610E-07	478572.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005461	0	0.35610E-07	478564.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005462	0	0.35610E-07	478555.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005463	0	0.35610E-07	478547.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005464	0	0.35610E-07	478538.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005465	0	0.35610E-07	478530.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005466	0	0.35610E-07	478521.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005467	0	0.35610E-07	478513.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

					Residential					
L0005468	0	0.35610E-07	478504.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005469	0	0.35610E-07	478496.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005470	0	0.35610E-07	478487.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005471	0	0.35610E-07	478479.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005472	0	0.35610E-07	478470.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005473	0	0.35610E-07	478462.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005474	0	0.35610E-07	478453.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005475	0	0.35610E-07	478445.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005476	0	0.35610E-07	478436.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005477	0	0.35610E-07	478428.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005478	0	0.35610E-07	478419.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005479	0	0.35610E-07	478411.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005480	0	0.35610E-07	478402.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005481	0	0.35610E-07	478394.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005482	0	0.35610E-07	478385.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005483	0	0.35610E-07	478377.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005484	0	0.35610E-07	478368.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005485	0	0.35610E-07	478360.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005486	0	0.35610E-07	478351.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005487	0	0.35610E-07	478343.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005488	0	0.35610E-07	478334.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005489	0	0.35610E-07	478326.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005490	0	0.35610E-07	478317.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005491	0	0.35610E-07	478309.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005492	0	0.35610E-07	478300.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005493	0	0.35610E-07	478292.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005494	0	0.35610E-07	478283.7	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005495	0	0.35610E-07	478275.2	3747774.7	449.0	0.00	3.95	1.86	YES	HROFDY
L0005496	0	0.35610E-07	478274.1	3747767.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005497	0	0.35610E-07	478274.2	3747758.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005498	0	0.35610E-07	478274.3	3747750.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005499	0	0.35610E-07	478274.4	3747741.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005500	0	0.35610E-07	478274.5	3747733.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005501	0	0.35610E-07	478274.6	3747724.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005502	0	0.35610E-07	478274.7	3747716.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005503	0	0.35610E-07	478274.8	3747707.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005504	0	0.35610E-07	478274.9	3747699.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005505	0	0.35610E-07	478275.0	3747690.9	449.0	0.00	3.95	1.86	YES	HROFDY
L0005506	0	0.35610E-07	478275.0	3747682.4	449.0	0.00	3.95	1.86	YES	HROFDY
L0005507	0	0.35610E-07	478275.1	3747673.9	448.9	0.00	3.95	1.86	YES	HROFDY
L0005508	0	0.35610E-07	478275.2	3747665.4	448.6	0.00	3.95	1.86	YES	HROFDY
L0005509	0	0.35610E-07	478275.3	3747656.9	448.4	0.00	3.95	1.86	YES	HROFDY
L0005510	0	0.35610E-07	478275.4	3747648.4	448.1	0.00	3.95	1.86	YES	HROFDY
L0005511	0	0.35610E-07	478275.5	3747639.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005512	0	0.35610E-07	478275.6	3747631.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005513	0	0.35610E-07	478275.7	3747622.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005514	0	0.35610E-07	478275.8	3747614.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005515	0	0.35610E-07	478275.9	3747605.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005516	0	0.35610E-07	478276.0	3747597.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005517	0	0.35610E-07	478276.1	3747588.9	448.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                Residential
 L0005518         0   0.35610E-07  478276.2 3747580.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005519         0   0.35610E-07  478276.3 3747571.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005520         0   0.35610E-07  478276.4 3747563.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005521         0   0.35610E-07  478276.5 3747554.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005522         0   0.35610E-07  478276.6 3747546.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005523         0   0.35610E-07  478276.7 3747537.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005524         0   0.35610E-07  478276.8 3747529.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005525         0   0.35610E-07  478276.9 3747520.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005526         0   0.35610E-07  478277.0 3747512.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005527         0   0.35610E-07  478277.1 3747503.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005528         0   0.35610E-07  478277.2 3747495.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005529         0   0.35610E-07  478277.3 3747486.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005530         0   0.35610E-07  478277.4 3747478.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005531         0   0.35610E-07  478277.5 3747469.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005532         0   0.35610E-07  478277.6 3747461.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005533         0   0.35610E-07  478277.7 3747452.9   448.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                        ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   15:38:09

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005534         0   0.35610E-07  478277.8 3747444.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005535         0   0.35610E-07  478277.9 3747435.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005536         0   0.35610E-07  478278.0 3747427.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005537         0   0.35610E-07  478278.1 3747418.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005538         0   0.35610E-07  478278.2 3747410.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005539         0   0.35610E-07  478278.3 3747401.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005540         0   0.35610E-07  478278.4 3747393.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005541         0   0.35610E-07  478278.5 3747384.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005542         0   0.35610E-07  478278.6 3747376.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005543         0   0.35610E-07  478278.7 3747367.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005544         0   0.35610E-07  478278.8 3747359.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005545         0   0.35610E-07  478278.9 3747350.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005546         0   0.35610E-07  478279.0 3747342.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005547         0   0.35610E-07  478279.1 3747333.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005548         0   0.35610E-07  478279.2 3747325.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005549         0   0.35610E-07  478279.2 3747316.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005550         0   0.35610E-07  478279.3 3747308.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005551         0   0.35610E-07  478279.4 3747299.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005552         0   0.35610E-07  478279.5 3747291.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005553         0   0.35610E-07  478279.6 3747282.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005554         0   0.35610E-07  478279.7 3747274.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005555         0   0.35610E-07  478279.8 3747265.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005556         0   0.35610E-07  478279.9 3747257.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005557         0   0.35610E-07  478280.0 3747248.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005558         0   0.35610E-07  478280.1 3747240.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005559         0   0.35610E-07  478280.2 3747231.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005560         0   0.35610E-07  478280.3 3747223.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005561         0   0.35610E-07  478280.4 3747214.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005562         0   0.35610E-07  478280.5 3747206.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005563         0   0.35610E-07  478280.6 3747197.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005564         0   0.35610E-07  478280.7 3747189.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005565         0   0.35610E-07  478280.8 3747180.9   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005566         0   0.35610E-07  478280.9 3747172.4   448.0     0.00     3.95     1.86     YES   HROFDY
 L0005567         0   0.35610E-07  478281.0 3747163.9   448.0     0.00     3.95     1.86     YES   HROFDY
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0005568	0	0.35610E-07	478281.1	3747155.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005569	0	0.35610E-07	478281.2	3747146.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005570	0	0.35610E-07	478281.3	3747138.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005571	0	0.35610E-07	478281.4	3747129.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005572	0	0.35610E-07	478281.5	3747121.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005573	0	0.35610E-07	478281.6	3747112.9	448.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005574	0	0.35610E-07	478281.7	3747104.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005575	0	0.35610E-07	478281.8	3747095.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005576	0	0.35610E-07	478281.9	3747087.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005577	0	0.35610E-07	478282.0	3747078.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005578	0	0.35610E-07	478282.1	3747070.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005579	0	0.35610E-07	478282.2	3747061.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005580	0	0.35610E-07	478282.3	3747053.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005581	0	0.35610E-07	478282.4	3747044.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005582	0	0.35610E-07	478282.5	3747036.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005583	0	0.35610E-07	478282.6	3747028.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005584	0	0.35610E-07	478282.7	3747019.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005585	0	0.35610E-07	478282.8	3747011.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005586	0	0.35610E-07	478282.9	3747002.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005587	0	0.35610E-07	478283.0	3746994.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005588	0	0.35610E-07	478283.1	3746985.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005589	0	0.35610E-07	478283.2	3746977.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005590	0	0.35610E-07	478283.3	3746968.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005591	0	0.35610E-07	478283.4	3746960.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005592	0	0.35610E-07	478283.5	3746951.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005593	0	0.35610E-07	478283.5	3746943.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005594	0	0.35610E-07	478283.6	3746934.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005595	0	0.35610E-07	478283.7	3746926.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005596	0	0.35610E-07	478283.8	3746917.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005597	0	0.35610E-07	478283.9	3746909.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005598	0	0.35610E-07	478284.0	3746900.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005599	0	0.35610E-07	478284.1	3746892.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005600	0	0.35610E-07	478284.2	3746883.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005601	0	0.35610E-07	478284.3	3746875.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005602	0	0.35610E-07	478284.4	3746866.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005603	0	0.35610E-07	478284.5	3746858.0	447.9	0.00	3.95	1.86	YES	HROFDY
L0005604	0	0.35610E-07	478284.6	3746849.5	447.7	0.00	3.95	1.86	YES	HROFDY
L0005605	0	0.35610E-07	478284.7	3746841.0	447.6	0.00	3.95	1.86	YES	HROFDY
L0005606	0	0.35610E-07	478284.8	3746832.5	447.4	0.00	3.95	1.86	YES	HROFDY
L0005607	0	0.35610E-07	478284.9	3746824.0	447.3	0.00	3.95	1.86	YES	HROFDY
L0005608	0	0.35610E-07	478285.0	3746815.5	447.2	0.00	3.95	1.86	YES	HROFDY
L0005609	0	0.35610E-07	478285.1	3746807.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0005610	0	0.35610E-07	478285.2	3746798.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0005611	0	0.35610E-07	478285.3	3746790.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0005612	0	0.35610E-07	478285.4	3746781.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0005613	0	0.35610E-07	478285.5	3746773.0	447.0	0.00	3.95	1.86	YES	HROFDY

Residential

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005614	0	0.12290E-07	478283.7	3746787.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0005615	0	0.12290E-07	478283.6	3746795.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0005616	0	0.12290E-07	478283.4	3746804.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0005617	0	0.12290E-07	478283.3	3746812.7	447.1	0.00	3.95	1.86	YES	HROFDY
L0005618	0	0.12290E-07	478283.1	3746821.2	447.3	0.00	3.95	1.86	YES	HROFDY
L0005619	0	0.12290E-07	478282.9	3746829.7	447.4	0.00	3.95	1.86	YES	HROFDY
L0005620	0	0.12290E-07	478282.8	3746838.2	447.6	0.00	3.95	1.86	YES	HROFDY
L0005621	0	0.12290E-07	478282.6	3746846.7	447.7	0.00	3.95	1.86	YES	HROFDY
L0005622	0	0.12290E-07	478282.5	3746855.2	447.9	0.00	3.95	1.86	YES	HROFDY
L0005623	0	0.12290E-07	478282.3	3746863.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005624	0	0.12290E-07	478282.1	3746872.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005625	0	0.12290E-07	478282.0	3746880.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005626	0	0.12290E-07	478281.8	3746889.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005627	0	0.12290E-07	478281.6	3746897.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005628	0	0.12290E-07	478281.5	3746906.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005629	0	0.12290E-07	478281.3	3746914.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005630	0	0.12290E-07	478281.2	3746923.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005631	0	0.12290E-07	478281.0	3746931.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005632	0	0.12290E-07	478280.8	3746940.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005633	0	0.12290E-07	478280.7	3746948.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005634	0	0.12290E-07	478280.5	3746957.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005635	0	0.12290E-07	478280.4	3746965.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005636	0	0.12290E-07	478288.9	3746965.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005637	0	0.12290E-07	478297.4	3746965.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005638	0	0.12290E-07	478305.9	3746965.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005639	0	0.12290E-07	478314.4	3746965.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0005640	0	0.12290E-07	478322.9	3746965.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0005641	0	0.12290E-07	478331.4	3746965.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005642	0	0.12290E-07	478339.9	3746965.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0005643	0	0.12290E-07	478348.4	3746965.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005644	0	0.12290E-07	478356.9	3746965.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005645	0	0.12290E-07	478365.4	3746964.9	447.9	0.00	3.95	1.86	YES	HROFDY
L0005646	0	0.12290E-07	478373.9	3746964.8	447.7	0.00	3.95	1.86	YES	HROFDY
L0005647	0	0.12290E-07	478382.4	3746964.8	447.5	0.00	3.95	1.86	YES	HROFDY
L0005648	0	0.12290E-07	478390.9	3746964.7	447.3	0.00	3.95	1.86	YES	HROFDY
L0005649	0	0.12290E-07	478399.4	3746964.6	447.2	0.00	3.95	1.86	YES	HROFDY
L0005650	0	0.12290E-07	478407.9	3746964.5	447.1	0.00	3.95	1.86	YES	HROFDY
L0005651	0	0.12290E-07	478416.4	3746964.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0005652	0	0.12290E-07	478424.9	3746964.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0005653	0	0.12290E-07	478433.4	3746964.3	447.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005654	0	0.12290E-07	478441.9	3746964.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0005655	0	0.12290E-07	478450.4	3746964.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0005656	0	0.12290E-07	478458.9	3746964.1	447.0	0.00	3.95	1.86	YES	HROFDY
L0005657	0	0.12290E-07	478467.4	3746964.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0005658	0	0.12290E-07	478475.9	3746963.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0005659	0	0.12290E-07	478484.4	3746963.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0005660	0	0.12290E-07	478492.9	3746963.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0005661	0	0.12290E-07	478501.4	3746963.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0005662	0	0.12290E-07	478509.9	3746963.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0005663	0	0.12290E-07	478518.4	3746963.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0005664	0	0.12290E-07	478526.9	3746963.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0005665	0	0.12290E-07	478535.4	3746963.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0005666	0	0.12290E-07	478543.9	3746963.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0005667	0	0.12290E-07	478552.4	3746963.3	447.0	0.00	3.95	1.86	YES	HROFDY
L0005668	0	0.12290E-07	478560.9	3746963.2	447.0	0.00	3.95	1.86	YES	HROFDY
L0005669	0	0.12290E-07	478569.4	3746963.1	447.0	0.00	3.95	1.86	YES	HROFDY
L0005670	0	0.12290E-07	478577.9	3746963.1	447.0	0.00	3.95	1.86	YES	HROFDY
L0005671	0	0.12290E-07	478586.4	3746963.0	447.0	0.00	3.95	1.86	YES	HROFDY
L0005672	0	0.12290E-07	478594.9	3746962.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0005673	0	0.12290E-07	478603.4	3746962.9	447.0	0.00	3.95	1.86	YES	HROFDY
L0005674	0	0.12290E-07	478611.9	3746962.8	447.0	0.00	3.95	1.86	YES	HROFDY
L0005675	0	0.12290E-07	478620.4	3746962.7	447.0	0.00	3.95	1.86	YES	HROFDY
L0005676	0	0.12290E-07	478628.9	3746962.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0005677	0	0.12290E-07	478637.4	3746962.6	447.0	0.00	3.95	1.86	YES	HROFDY
L0005678	0	0.12290E-07	478645.9	3746962.5	447.0	0.00	3.95	1.86	YES	HROFDY
L0005679	0	0.12290E-07	478654.4	3746962.4	447.0	0.00	3.95	1.86	YES	HROFDY
L0005680	0	0.12290E-07	478662.9	3746962.3	446.9	0.00	3.95	1.86	YES	HROFDY
L0005681	0	0.12290E-07	478671.4	3746962.3	446.7	0.00	3.95	1.86	YES	HROFDY
L0005682	0	0.12290E-07	478679.9	3746962.2	446.5	0.00	3.95	1.86	YES	HROFDY
L0005683	0	0.12290E-07	478688.4	3746962.1	446.2	0.00	3.95	1.86	YES	HROFDY
L0005684	0	0.12290E-07	478696.9	3746962.0	446.2	0.00	3.95	1.86	YES	HROFDY
L0005685	0	0.12290E-07	478705.4	3746962.0	446.2	0.00	3.95	1.86	YES	HROFDY
L0005686	0	0.12290E-07	478713.9	3746961.9	446.2	0.00	3.95	1.86	YES	HROFDY
L0005687	0	0.12290E-07	478722.4	3746961.8	446.2	0.00	3.95	1.86	YES	HROFDY
L0005688	0	0.12290E-07	478730.9	3746961.8	446.1	0.00	3.95	1.86	YES	HROFDY
L0005689	0	0.12290E-07	478739.4	3746961.7	446.1	0.00	3.95	1.86	YES	HROFDY
L0005690	0	0.12290E-07	478747.9	3746961.6	446.0	0.00	3.95	1.86	YES	HROFDY
L0005691	0	0.12290E-07	478756.4	3746961.5	446.0	0.00	3.95	1.86	YES	HROFDY
L0005692	0	0.12290E-07	478764.9	3746961.5	446.0	0.00	3.95	1.86	YES	HROFDY
L0005693	0	0.12290E-07	478773.4	3746961.4	446.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005694	0	0.12290E-07	478781.9	3746961.3	446.0	0.00	3.95	1.86	YES	HROFDY
L0005695	0	0.12290E-07	478790.4	3746961.2	446.0	0.00	3.95	1.86	YES	HROFDY
L0005696	0	0.12290E-07	478798.9	3746961.2	446.0	0.00	3.95	1.86	YES	HROFDY
L0005697	0	0.12290E-07	478807.4	3746961.1	446.0	0.00	3.95	1.86	YES	HROFDY
L0005698	0	0.12290E-07	478815.9	3746961.0	446.0	0.00	3.95	1.86	YES	HROFDY
L0005699	0	0.12290E-07	478824.4	3746960.9	446.0	0.00	3.95	1.86	YES	HROFDY
L0005700	0	0.12290E-07	478832.9	3746960.9	446.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0005701	0	0.12290E-07	478841.4	3746960.8	446.0	0.00	3.95	1.86	YES	HROFDY
L0005702	0	0.12290E-07	478849.9	3746960.7	446.0	0.00	3.95	1.86	YES	HROFDY
L0005703	0	0.12290E-07	478858.4	3746960.7	446.0	0.00	3.95	1.86	YES	HROFDY
L0005704	0	0.12290E-07	478866.9	3746960.6	446.0	0.00	3.95	1.86	YES	HROFDY
L0005705	0	0.12290E-07	478875.4	3746960.5	446.0	0.00	3.95	1.86	YES	HROFDY
L0005706	0	0.12290E-07	478883.9	3746960.4	446.0	0.00	3.95	1.86	YES	HROFDY
L0005707	0	0.12290E-07	478892.4	3746960.4	446.0	0.00	3.95	1.86	YES	HROFDY
L0005708	0	0.12290E-07	478900.9	3746960.3	446.0	0.00	3.95	1.86	YES	HROFDY
L0005709	0	0.12290E-07	478909.4	3746960.2	446.0	0.00	3.95	1.86	YES	HROFDY
L0005710	0	0.12290E-07	478917.9	3746960.1	446.0	0.00	3.95	1.86	YES	HROFDY
L0005711	0	0.12290E-07	478926.4	3746960.1	446.0	0.00	3.95	1.86	YES	HROFDY
L0005712	0	0.12290E-07	478934.9	3746960.0	446.0	0.00	3.95	1.86	YES	HROFDY
L0005713	0	0.12290E-07	478943.4	3746959.9	446.0	0.00	3.95	1.86	YES	HROFDY
L0005714	0	0.12290E-07	478951.9	3746959.9	446.0	0.00	3.95	1.86	YES	HROFDY
L0005715	0	0.12290E-07	478960.4	3746959.8	446.0	0.00	3.95	1.86	YES	HROFDY
L0005716	0	0.12290E-07	478968.9	3746959.7	446.0	0.00	3.95	1.86	YES	HROFDY
L0005717	0	0.12290E-07	478977.4	3746959.6	446.0	0.00	3.95	1.86	YES	HROFDY
L0005718	0	0.12290E-07	478985.9	3746959.6	446.0	0.00	3.95	1.86	YES	HROFDY
L0005719	0	0.12290E-07	478994.4	3746959.5	446.0	0.00	3.95	1.86	YES	HROFDY
L0005720	0	0.12290E-07	479002.9	3746959.4	446.0	0.00	3.95	1.86	YES	HROFDY
L0005721	0	0.12290E-07	479011.4	3746959.3	446.0	0.00	3.95	1.86	YES	HROFDY
L0005722	0	0.12290E-07	479019.9	3746959.3	446.0	0.00	3.95	1.86	YES	HROFDY
L0005723	0	0.12290E-07	479028.4	3746959.2	446.0	0.00	3.95	1.86	YES	HROFDY
L0005724	0	0.12290E-07	479036.9	3746959.1	446.0	0.00	3.95	1.86	YES	HROFDY
L0005725	0	0.12290E-07	479045.4	3746959.0	446.0	0.00	3.95	1.86	YES	HROFDY
L0005726	0	0.12290E-07	479053.9	3746959.0	446.0	0.00	3.95	1.86	YES	HROFDY
L0005727	0	0.12290E-07	479062.4	3746958.9	446.0	0.00	3.95	1.86	YES	HROFDY
L0005728	0	0.12290E-07	479070.9	3746958.8	446.0	0.00	3.95	1.86	YES	HROFDY
L0005729	0	0.12290E-07	479079.4	3746958.8	446.0	0.00	3.95	1.86	YES	HROFDY
L0005730	0	0.31990E-05	477927.9	3746810.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0005731	0	0.31990E-05	477936.4	3746810.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0005732	0	0.31990E-05	477944.9	3746810.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0005733	0	0.31990E-05	477953.4	3746810.2	448.0	0.00	3.95	1.86	YES	HROFDY

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005734	0	0.31990E-05	477961.9	3746810.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005735	0	0.31990E-05	477970.4	3746810.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0005736	0	0.31990E-05	477978.9	3746810.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0005737	0	0.31990E-05	477987.4	3746810.1	448.0	0.00	3.95	1.86	YES	HROFDY
L0005738	0	0.31990E-05	477995.9	3746810.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005739	0	0.31990E-05	478004.4	3746810.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005740	0	0.31990E-05	478012.9	3746809.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005741	0	0.31990E-05	478021.4	3746809.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005742	0	0.31990E-05	478029.9	3746809.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005743	0	0.31990E-05	478038.4	3746809.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005744	0	0.31990E-05	478046.9	3746809.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005745	0	0.31990E-05	478055.4	3746809.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005746	0	0.31990E-05	478063.9	3746809.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005747	0	0.31990E-05	478072.4	3746809.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005748	0	0.31990E-05	478080.9	3746809.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005749	0	0.31990E-05	478089.4	3746809.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005750	0	0.31990E-05	478097.9	3746809.6	448.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0005751	0	0.31990E-05	478106.4	3746809.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005752	0	0.31990E-05	478114.9	3746809.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005753	0	0.31990E-05	478123.4	3746809.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005754	0	0.31990E-05	478131.9	3746809.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005755	0	0.31990E-05	478140.4	3746809.4	448.0	0.00	3.95	1.86	YES	HROFDY
L0005756	0	0.31990E-05	478148.9	3746809.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0005757	0	0.31990E-05	478157.4	3746809.3	448.0	0.00	3.95	1.86	YES	HROFDY
L0005758	0	0.31990E-05	478165.9	3746809.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005759	0	0.31990E-05	478174.4	3746809.2	448.0	0.00	3.95	1.86	YES	HROFDY
L0005760	0	0.10300E-05	478266.8	3746792.2	447.1	0.00	3.95	1.86	YES	HROFDY
L0005761	0	0.10300E-05	478258.3	3746792.2	447.2	0.00	3.95	1.86	YES	HROFDY
L0005762	0	0.10300E-05	478249.8	3746792.2	447.4	0.00	3.95	1.86	YES	HROFDY
L0005763	0	0.10300E-05	478241.3	3746792.1	447.5	0.00	3.95	1.86	YES	HROFDY
L0005764	0	0.10300E-05	478232.8	3746792.1	447.6	0.00	3.95	1.86	YES	HROFDY
L0005765	0	0.10300E-05	478224.3	3746792.1	447.8	0.00	3.95	1.86	YES	HROFDY
L0005766	0	0.10300E-05	478215.8	3746792.1	447.9	0.00	3.95	1.86	YES	HROFDY
L0005767	0	0.10300E-05	478207.3	3746792.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005768	0	0.10300E-05	478198.8	3746792.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005769	0	0.10300E-05	478190.3	3746792.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005770	0	0.10300E-05	478181.8	3746792.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005771	0	0.10300E-05	478173.3	3746792.0	448.0	0.00	3.95	1.86	YES	HROFDY
L0005772	0	0.10300E-05	478164.8	3746791.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005773	0	0.10300E-05	478156.3	3746791.9	448.0	0.00	3.95	1.86	YES	HROFDY

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005774	0	0.10300E-05	478147.8	3746791.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005775	0	0.10300E-05	478139.3	3746791.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005776	0	0.10300E-05	478130.8	3746791.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005777	0	0.10300E-05	478122.3	3746791.9	448.0	0.00	3.95	1.86	YES	HROFDY
L0005778	0	0.10300E-05	478113.8	3746791.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005779	0	0.10300E-05	478105.3	3746791.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005780	0	0.10300E-05	478096.8	3746791.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005781	0	0.10300E-05	478088.3	3746791.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005782	0	0.10300E-05	478079.8	3746791.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005783	0	0.10300E-05	478071.3	3746791.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005784	0	0.10300E-05	478062.8	3746791.8	448.0	0.00	3.95	1.86	YES	HROFDY
L0005785	0	0.10300E-05	478054.3	3746791.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005786	0	0.10300E-05	478045.8	3746791.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005787	0	0.10300E-05	478037.3	3746791.7	448.0	0.00	3.95	1.86	YES	HROFDY
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L0005790	0	0.10300E-05	478011.8	3746791.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005791	0	0.10300E-05	478003.3	3746791.7	448.0	0.00	3.95	1.86	YES	HROFDY
L0005792	0	0.10300E-05	477994.8	3746791.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005793	0	0.10300E-05	477986.3	3746791.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005794	0	0.10300E-05	477977.8	3746791.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005795	0	0.10300E-05	477969.3	3746791.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005796	0	0.10300E-05	477960.8	3746791.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005797	0	0.10300E-05	477952.3	3746791.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005798	0	0.10300E-05	477943.8	3746791.6	448.0	0.00	3.95	1.86	YES	HROFDY
L0005799	0	0.10300E-05	477935.3	3746791.5	448.0	0.00	3.95	1.86	YES	HROFDY
L0005800	0	0.10300E-05	477926.8	3746791.5	448.0	0.00	3.95	1.86	YES	HROFDY

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                  Residential
 L0005801         0   0.10300E-05  477918.3 3746791.5   448.0     0.00     3.95     1.86     YES   HROFDY
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   15:38:09

   PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                  *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                          SOURCE IDs
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L0004621    ,
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
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♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID SOURCE IDs

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

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♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   15:38:09

   PAGE  43
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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L0004806 , L0004807 , L0004808 , L0004809 , L0004810 , L0004811 , L0004812 , L0004813 ,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0004814 , L0004815 , L0004816 , L0004817 , L0004818 , L0004819 , L0004820 , L0004821 ,
L0004822 , L0004823 , L0004824 , L0004825 , L0004826 , L0004827 , L0004828 , L0004829 ,
L0004830 , L0004831 , L0004832 , L0004833 , L0004834 , L0004835 , L0004836 , L0004837 ,
L0004838 , L0004839 , L0004840 , L0004841 , L0004842 , L0004843 , L0004844 , L0004845 ,
L0004846 , L0004847 , L0004848 , L0004849 , L0004850 , L0004851 , L0004852 , L0004853 ,
L0004854 , L0004855 , L0004856 , L0004857 , L0004858 , L0004859 , L0004860 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
L0004861 ,
L0004862 , L0004863 , L0004864 , L0004865 , L0004866 , L0004867 , L0004868 , L0004869 ,
L0004870 , L0004871 , L0004872 , L0004873 , L0004874 , L0004875 , L0004876 , L0004877 ,
L0004878 , L0004879 , L0004880 , L0004881 , L0004882 , L0004883 , L0004884 , L0004885 ,
L0004886 , L0004887 , L0004888 , L0004889 , L0004890 , L0004891 , L0004892 , L0004893 ,
L0004894 , L0004895 , L0004896 , L0004897 , L0004898 , L0004899 , L0004900 , L0004901 ,
L0004902 , L0004903 , L0004904 , L0004905 , L0004906 , L0004907 , L0004908 , L0004909 ,
L0004910 , L0004911 , L0004912 , L0004913 , L0004914 , L0004915 , L0004916 , L0004917 ,
L0004918 , L0004919 , L0004920 , L0004921 , L0004922 , L0004923 , L0004924 , L0004925 ,
L0004926 , L0004927 , L0004928 , L0004929 , L0004930 , L0004931 , L0004932 , L0004933 ,
L0004934 , L0004935 , L0004936 , L0004937 , L0004938 , L0004939 , L0004940 , L0004941 ,
L0004942 , L0004943 , L0004944 , L0004945 , L0004946 , L0004947 , L0004948 , L0004949 ,
L0004950 , L0004951 , L0004952 , L0004953 , L0004954 , L0004955 , L0004956 , L0004957 ,
L0004958 , L0004959 , L0004960 , L0004961 , L0004962 , L0004963 , L0004964 , L0004965 ,
L0004966 , L0004967 , L0004968 , L0004969 , L0004970 , L0004971 , L0004972 , L0004973 ,

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0004974 , L0004975 , L0004976 , L0004977 , L0004978 , L0004979 , L0004980 , L0004981 ,
L0004982 , L0004983 , L0004984 , L0004985 , L0004986 , L0004987 , L0004988 , L0004989 ,
L0004990 , L0004991 , L0004992 , L0004993 , L0004994 , L0004995 , L0004996 , L0004997 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
L0004998 , L0004999 , L0005000 , L0005001 , L0005002 , L0005003 , L0005004 , L0005005 ,
L0005006 , L0005007 , L0005008 , L0005009 , L0005010 , L0005011 , L0005012 , L0005013 ,
L0005014 , L0005015 , L0005016 , L0005017 , L0005018 , L0005019 , L0005020 , L0005021 ,
L0005022 , L0005023 , L0005024 , L0005025 , L0005026 , L0005027 , L0005028 , L0005029 ,
L0005030 , L0005031 , L0005032 , L0005033 , L0005034 , L0005035 , L0005036 , L0005037 ,
L0005038 , L0005039 , L0005040 , L0005041 , L0005042 , L0005043 , L0005044 , L0005045 ,
L0005046 , L0005047 , L0005048 , L0005049 , L0005050 , L0005051 , L0005052 , L0005053 ,
L0005054 , L0005055 , L0005056 , L0005057 , L0005058 , L0005059 , L0005060 , L0005061 ,
L0005062 , L0005063 , L0005064 , L0005065 , L0005066 , L0005067 , L0005068 , L0005069 ,
L0005070 , L0005071 , L0005072 , L0005073 , L0005074 , L0005075 , L0005076 , L0005077 ,
L0005078 , L0005079 , L0005080 , L0005081 , L0005082 , L0005083 , L0005084 , L0005085 ,
L0005086 , L0005087 , L0005088 , L0005089 , L0005090 , L0005091 , L0005092 , L0005093 ,
L0005094 , L0005095 , L0005096 , L0005097 , L0005098 , L0005099 , L0005100 , L0005101 ,
L0005102 , L0005103 , L0005104 , L0005105 , L0005106 , L0005107 , L0005108 , L0005109 ,
L0005110 , L0005111 , L0005112 , L0005113 , L0005114 , L0005115 , L0005116 , L0005117 ,
L0005118 , L0005119 , L0005120 , L0005121 , L0005122 , L0005123 , L0005124 , L0005125 ,
L0005126 , L0005127 , L0005128 , L0005129 , L0005130 , L0005131 , L0005132 , L0005133 ,

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0005134 , L0005135 , L0005136 , L0005137 , L0005138 , L0005139 , L0005140 , L0005141 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

L0005142 , L0005143 , L0005144 , L0005145 , L0005146 , L0005147 , L0005148 , L0005149 ,
L0005150 , L0005151 , L0005152 , L0005153 , L0005154 , L0005155 , L0005156 , L0005157 ,
L0005158 , L0005159 , L0005160 , L0005161 , L0005162 , L0005163 , L0005164 , L0005165 ,
L0005166 , L0005167 , L0005168 , L0005169 , L0005170 , L0005171 , L0005172 , L0005173 ,
L0005174 , L0005175 , L0005176 , L0005177 , L0005178 , L0005179 , L0005180 , L0005181 ,
L0005182 , L0005183 , L0005184 , L0005185 , L0005186 , L0005187 , L0005188 , L0005189 ,
L0005190 , L0005191 , L0005192 , L0005193 , L0005194 , L0005195 , L0005196 , L0005197 ,
L0005198 , L0005199 , L0005200 , L0005201 , L0005202 , L0005203 , L0005204 , L0005205 ,
L0005206 , L0005207 , L0005208 , L0005209 , L0005210 , L0005211 , L0005212 , L0005213 ,
L0005214 , L0005215 , L0005216 , L0005217 , L0005218 , L0005219 , L0005220 , L0005221 ,
L0005222 , L0005223 , L0005224 , L0005225 , L0005226 , L0005227 , L0005228 , L0005229 ,
L0005230 , L0005231 , L0005232 , L0005233 , L0005234 , L0005235 , L0005236 , L0005237 ,
L0005238 , L0005239 , L0005240 , L0005241 , L0005242 , L0005243 , L0005244 , L0005245 ,
L0005246 , L0005247 , L0005248 , L0005249 , L0005250 , L0005251 , L0005252 , L0005253 ,
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L0005262 , L0005263 , L0005264 , L0005265 , L0005266 , L0005267 , L0005268 , L0005269 ,
L0005270 , L0005271 , L0005272 , L0005273 , L0005274 , L0005275 , L0005276 , L0005277 ,
L0005278 , L0005279 , L0005280 , L0005281 , L0005282 , L0005283 , L0005284 , L0005285 ,
L0005286 , L0005287 , L0005288 , L0005289 , L0005290 , L0005291 , L0005292 , L0005293 ,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

URBAN ID URBAN POP SOURCE IDs

L0005294 , L0005295 , L0005296 , L0005297 , L0005298 , L0005299 , L0005300 , L0005301 ,
L0005302 , L0005303 , L0005304 , L0005305 , L0005306 , L0005307 , L0005308 , L0005309 ,
L0005310 , L0005311 , L0005312 , L0005313 , L0005314 , L0005315 , L0005316 , L0005317 ,
L0005318 , L0005319 , L0005320 , L0005321 , L0005322 , L0005323 , L0005324 , L0005325 ,
L0005326 , L0005327 , L0005328 , L0005329 , L0005330 , L0005331 , L0005332 , L0005333 ,
L0005334 , L0005335 , L0005336 , L0005337 , L0005338 , L0005339 , L0005340 , L0005341 ,
L0005342 , L0005343 , L0005344 , L0005345 , L0005346 , L0005347 , L0005348 , L0005349 ,
L0005350 , L0005351 , L0005352 , L0005353 , L0005354 , L0005355 , L0005356 , L0005357 ,
L0005358 , L0005359 , L0005360 , L0005361 , L0005362 , L0005363 , L0005364 , L0005365 ,
L0005366 , L0005367 , L0005368 , L0005369 , L0005370 , L0005371 , L0005372 , L0005373 ,
L0005374 , L0005375 , L0005376 , L0005377 , L0005378 , L0005379 , L0005380 , L0005381 ,
L0005382 , L0005383 , L0005384 , L0005385 , L0005386 , L0005387 , L0005388 , L0005389 ,
L0005390 , L0005391 , L0005392 , L0005393 , L0005394 , L0005395 , L0005396 , L0005397 ,
L0005398 , L0005399 , L0005400 , L0005401 , L0005402 , L0005403 , L0005404 , L0005405 ,
L0005406 , L0005407 , L0005408 , L0005409 , L0005410 , L0005411 , L0005412 , L0005413 ,
L0005414 , L0005415 , L0005416 , L0005417 , L0005418 , L0005419 , L0005420 , L0005421 ,
L0005422 , L0005423 , L0005424 , L0005425 , L0005426 , L0005427 , L0005428 , L0005429 ,
L0005430 , L0005431 , L0005432 , L0005433 , L0005434 , L0005435 , L0005436 , L0005437 ,
L0005438 , L0005439 , L0005440 , L0005441 , L0005442 , L0005443 , L0005444 , L0005445 ,
L0005446 , L0005447 , L0005448 , L0005449 , L0005450 , L0005451 , L0005452 , L0005453 ,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
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*** AERMET - VERSION 14134 *** *** ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0005454 , L0005455 , L0005456 , L0005457 , L0005458 , L0005459 , L0005460 , L0005461 ,
L0005462 , L0005463 , L0005464 , L0005465 , L0005466 , L0005467 , L0005468 , L0005469 ,
L0005470 , L0005471 , L0005472 , L0005473 , L0005474 , L0005475 , L0005476 , L0005477 ,
L0005478 , L0005479 , L0005480 , L0005481 , L0005482 , L0005483 , L0005484 , L0005485 ,
L0005486 , L0005487 , L0005488 , L0005489 , L0005490 , L0005491 , L0005492 , L0005493 ,
L0005494 , L0005495 , L0005496 , L0005497 , L0005498 , L0005499 , L0005500 , L0005501 ,
L0005502 , L0005503 , L0005504 , L0005505 , L0005506 , L0005507 , L0005508 , L0005509 ,
L0005510 , L0005511 , L0005512 , L0005513 , L0005514 , L0005515 , L0005516 , L0005517 ,
L0005518 , L0005519 , L0005520 , L0005521 , L0005522 , L0005523 , L0005524 , L0005525 ,
L0005526 , L0005527 , L0005528 , L0005529 , L0005530 , L0005531 , L0005532 , L0005533 ,
L0005534 , L0005535 , L0005536 , L0005537 , L0005538 , L0005539 , L0005540 , L0005541 ,
L0005542 , L0005543 , L0005544 , L0005545 , L0005546 , L0005547 , L0005548 , L0005549 ,
L0005550 , L0005551 , L0005552 , L0005553 , L0005554 , L0005555 , L0005556 , L0005557 ,
L0005558 , L0005559 , L0005560 , L0005561 , L0005562 , L0005563 , L0005564 , L0005565 ,
L0005566 , L0005567 , L0005568 , L0005569 , L0005570 , L0005571 , L0005572 , L0005573 ,
L0005574 , L0005575 , L0005576 , L0005577 , L0005578 , L0005579 , L0005580 , L0005581 ,
L0005582 , L0005583 , L0005584 , L0005585 , L0005586 , L0005587 , L0005588 , L0005589 ,
L0005590 , L0005591 , L0005592 , L0005593 , L0005594 , L0005595 , L0005596 , L0005597 ,
L0005598 , L0005599 , L0005600 , L0005601 , L0005602 , L0005603 , L0005604 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
L0005605 ,

L0005606 , L0005607 , L0005608 , L0005609 , L0005610 , L0005611 , L0005612 , L0005613 ,
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0005614 , L0005615 , L0005616 , L0005617 , L0005618 , L0005619 , L0005620 , L0005621 ,

L0005622 , L0005623 , L0005624 , L0005625 , L0005626 , L0005627 , L0005628 , L0005629 ,

L0005630 , L0005631 , L0005632 , L0005633 , L0005634 , L0005635 , L0005636 , L0005637 ,

L0005638 , L0005639 , L0005640 , L0005641 , L0005642 , L0005643 , L0005644 , L0005645 ,

L0005646 , L0005647 , L0005648 , L0005649 , L0005650 , L0005651 , L0005652 , L0005653 ,

L0005654 , L0005655 , L0005656 , L0005657 , L0005658 , L0005659 , L0005660 , L0005661 ,

L0005662 , L0005663 , L0005664 , L0005665 , L0005666 , L0005667 , L0005668 , L0005669 ,

L0005670 , L0005671 , L0005672 , L0005673 , L0005674 , L0005675 , L0005676 , L0005677 ,

L0005678 , L0005679 , L0005680 , L0005681 , L0005682 , L0005683 , L0005684 , L0005685 ,

L0005686 , L0005687 , L0005688 , L0005689 , L0005690 , L0005691 , L0005692 , L0005693 ,

L0005694 , L0005695 , L0005696 , L0005697 , L0005698 , L0005699 , L0005700 , L0005701 ,

L0005702 , L0005703 , L0005704 , L0005705 , L0005706 , L0005707 , L0005708 , L0005709 ,

L0005710 , L0005711 , L0005712 , L0005713 , L0005714 , L0005715 , L0005716 , L0005717 ,

L0005718 , L0005719 , L0005720 , L0005721 , L0005722 , L0005723 , L0005724 , L0005725 ,

L0005726 , L0005727 , L0005728 , L0005729 , L0005730 , L0005731 , L0005732 , L0005733 ,

L0005734 , L0005735 , L0005736 , L0005737 , L0005738 , L0005739 , L0005740 , L0005741 ,

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
L0005742 , L0005743 , L0005744 , L0005745 , L0005746 , L0005747 , L0005748 , L0005749 ,

L0005750 , L0005751 , L0005752 , L0005753 , L0005754 , L0005755 , L0005756 , L0005757 ,

L0005758 , L0005759 , L0005760 , L0005761 , L0005762 , L0005763 , L0005764 , L0005765 ,

L0005766 , L0005767 , L0005768 , L0005769 , L0005770 , L0005771 , L0005772 , L0005773 ,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0005774 , L0005775 , L0005776 , L0005777 , L0005778 , L0005779 , L0005780 , L0005781 ,

L0005782 , L0005783 , L0005784 , L0005785 , L0005786 , L0005787 , L0005788 , L0005789 ,

L0005790 , L0005791 , L0005792 , L0005793 , L0005794 , L0005795 , L0005796 , L0005797 ,

L0005798 , L0005799 , L0005800 , L0005801 , L0005802 , L0005803 , L0005804 , STCK1 ,

STCK2 , STCK3 , STCK4 ,
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004494 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004495 ; SOURCE TYPE = VOLUME :

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004496 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004497 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004498 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

Residential

SOURCE ID = L0004500 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004501 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004502 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004503 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004504 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004505     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004506     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004507     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004508     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:38:09

   PAGE  57
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004509     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

Residential

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004510     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004511     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004512     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004513     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                        ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
   15:38:09

   PAGE  58
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0004514 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004515 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004516 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004517 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004518 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

- - - - - - - -

SOURCE ID = L0004519 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004520 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004521 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004522 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004523 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

PAGE 60
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

Residential

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004524 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004525 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004526 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004527 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004528 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004529 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004530 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004531 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004532 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004533 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004534 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004535 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004536 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004537 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004538 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004539 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004540 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004541 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004542 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004543 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004544 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004545 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004546 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004547 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004548 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0004558 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004559 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004560 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004561 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004562 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004563 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004564 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004565 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004566 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004567 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12

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Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004568 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004573 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

Residential

SOURCE ID = L0004577 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004578 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004579 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004580 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004581 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004582 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004583 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004587 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004588 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004589 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004590 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0004591 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004592 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004593 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004594 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004595 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0004596 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004597 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004598 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004601 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004602 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004603 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004604 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004605 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004606 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004607 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004608 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0004610 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004611 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004612 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004613 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004614 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004615 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004616 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004617 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004618 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004619 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004620     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004621     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004622     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004623     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:38:09

   PAGE  80
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004624     ; SOURCE TYPE = VOLUME   :
```

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004625 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004626 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004627 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004628 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
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SOURCE ID = L0004629 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004630 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004631 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004632 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004633 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SCALAR

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Residential
* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004639 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004640 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004641 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004642 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004643 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004644 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004645 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004646 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004647 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004648 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004649 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004650 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004651 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004652 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004653 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004654 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004655 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004656 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004657 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004658 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
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Residential
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004664 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004665 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004666 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004667 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0004668 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004669 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004670 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004671 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004672 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0004673 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004678 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004683 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0004687 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004688 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004689 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004690 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004691 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004692 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004693 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004694 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004695 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004696 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004697 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004698 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004702 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004703 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004704 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004705 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0004706 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004707 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004708 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004709 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004710 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004711 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004712 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004713 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004716 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004717 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004718 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004719 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0004720 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004721 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004722 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004723 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004724 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0004725 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004726 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004727 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004728 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

```
                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004730     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004731     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004732     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004733     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:38:09

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 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004734     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004735 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004736 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004737 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004738 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

SOURCE ID = L0004739 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004740 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004741 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004742 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004743 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

SOURCE ID = L0004744 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004745 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004746 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004747 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004748 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

```
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004749     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004750     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004751     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004752     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004753     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:38:09

   PAGE 106
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004754 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004755 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004756 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004757 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004758 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004759 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004760 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004761 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004762 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004763 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004764 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004765 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004766 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004767 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004768 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004769 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004770 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004771 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004772 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004773 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

PAGE 110
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004779 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004780 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004781 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004782 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0004783 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004784 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004785 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004786 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004787 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004788 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

```
                                                Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004793     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0004794     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004795     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0004796     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Residential

SOURCE ID = L0004797 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004798 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004799 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004800 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004801 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0004802 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004803 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004804 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004805 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004806 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004807 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004808 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004812 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004813 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0004816 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004817 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004818 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004819 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004820 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004821 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004822 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004823 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004824 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004825 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004826 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004827 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004828 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004831 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004832 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004833 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004834 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0004835 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004836 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004837 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004838 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004839 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004840 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004841 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004842 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004843 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
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Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004845 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004846 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004847 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004848 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0004849 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004850 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004851 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004852 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004853 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

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SOURCE ID = L0004854 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004855 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004856 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004857 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004858 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

Residential

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004859 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004860 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004861 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004862 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004863 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

Residential

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004864	; SOURCE TYPE = VOLUME :										
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004865	; SOURCE TYPE = VOLUME :										
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004866	; SOURCE TYPE = VOLUME :										
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004867	; SOURCE TYPE = VOLUME :										
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004868	; SOURCE TYPE = VOLUME :										
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004869 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004870 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004871 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004872 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004873 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004874 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004875 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004876 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004877 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004878 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004879 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004880 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004881 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004882 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004883 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

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Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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PAGE 133
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0004893 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004894 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004895 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004896 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004897 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004898 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

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SOURCE ID = L0004899 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004900 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004901 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004902 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004903 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004908 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

Residential

SOURCE ID = L0004912 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004913 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004914 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004915 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004916 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004917 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004918 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004922 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004923 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0004926 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004927 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004928 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004929 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004930 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0004931 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004932 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004933 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004936 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004937 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004938 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004941 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004942 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004943 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0004945 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004946 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004947 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004948 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0004949 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004950 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004951 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004952 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004953 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0004954 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004955 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004956 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004957 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0004958 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004960 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004961 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004962 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0004963 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0004964 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004965 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004966 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004967 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0004968 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

SCALAR
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Residential
* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004974 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004975 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004976 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004977 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004978 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004979 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004980 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004981 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004982 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004983 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0004984 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004985 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004986 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004987 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0004988 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
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Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
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Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

SOURCE ID = L0005003 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005004 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005005 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005006 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005007 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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Residential
.00000E+00

SOURCE ID = L0005008 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005009 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005010 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005011 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005012 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005013 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005018 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0005022 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005023 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005024 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005025 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005026 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005027 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005028 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005032 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005033 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

```
                                                Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005037     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005038     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

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    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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   PAGE 163
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005039     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005040     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0005041 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005042 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005043 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005044 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005045 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005046 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005047 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005048 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005051 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005052 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005053 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005054 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0005055 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005056 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005057 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005058 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005059 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005060 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005061 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005062 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005063 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005064 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005065     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005066     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005067     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005068     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:38:09

   PAGE 169
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005069     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005070 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005071 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005072 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005073 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

SOURCE ID = L0005074 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005075 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005076 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005077 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005078 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

- - - -

Residential

```
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005084     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005085     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005086     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005087     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005088     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:38:09

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005089 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005090 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005091 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005092 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005093 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005094 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005095 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005096 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005097 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005098 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005099 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005100 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005101 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005102 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005103 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005104 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005105 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005106 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005107 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005108 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

PAGE 177
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

PAGE 178
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0005118 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

PAGE 179
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005119 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005120 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005121 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005122 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005123 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

PAGE 180
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

```
                                                Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005128     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:38:09

   PAGE 181
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005129     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005130     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005131     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Residential

SOURCE ID = L0005132 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005133 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005134 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005135 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005136 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005137 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005138 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005142 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005143 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005147 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005148 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0005151 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005152 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005153 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005154 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005155 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005156 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005157 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005158 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005159 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005160 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005161 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005162 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005163 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005166 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005167 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005168 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0005170 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005171 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005172 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005173 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005174 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005175 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005176 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005177 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005178 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005180 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005181 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005182 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005183 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0005184 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005185 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005186 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005187 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005188 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

- - - - - - - -

SOURCE ID = L0005189 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005190 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005191 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005192 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005193 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                  Residential
     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -

 SOURCE ID = L0005194     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

 SOURCE ID = L0005195     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

 SOURCE ID = L0005196     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

 SOURCE ID = L0005197     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

 SOURCE ID = L0005198     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:38:09

   PAGE 195
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN
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Residential

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005199 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005200 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005201 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005202 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005203 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005204 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005205 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005206 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005207 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005208 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005209 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005210 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005211 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005212 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005213 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

PAGE 198
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005214 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005215 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005216 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005217 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005218 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005219 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005220 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005221 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005222 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005223 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

PAGE 200
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0005228 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005229 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005230 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005231 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005232 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005233     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:38:09

   PAGE 202
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005234     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005235     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005236     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005237     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

Residential
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005238 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005243 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

Residential

SOURCE ID = L0005247 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005248 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005249 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005250 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005251 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005252 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005253 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005257     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005258     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:38:09

   PAGE 207
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005259     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005260     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0005261 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005262 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005263 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005264 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005265 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005266 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005267 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005268 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005269 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005270 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005271 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005272 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005273 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005274 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005275 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005276 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005277 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005278 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
15:38:09

PAGE 211
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0005280 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005281 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005282 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005283 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005284 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005285 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005286 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005287 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005288 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005289 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005290 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005291 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005292 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005293 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005295 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005296 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005297 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005298 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Residential

SOURCE ID = L0005299 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005300 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005301 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005302 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005303 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SCALAR

- - - -

Residential
* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005309 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005310 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005311 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005312 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005313 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005314 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005315 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005316 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005317 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005318 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005319 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005320 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005321 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005322 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005323 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005324 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005325 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005326 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005327 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005328 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

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Residential
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
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Residential
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0005338 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005339 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005340 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005341 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005342 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005343 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005344 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005345 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005346 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005347 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005348 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005353 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0005357 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005358 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005359 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005360 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005361 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005362 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005363 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005367 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005368 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005372 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005373 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005374 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005375 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0005376 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005377 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005378 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005379 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005380 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005381 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005382 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005383 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005386 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005387 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005388 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0005390 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005391 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005392 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005393 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

PAGE 234
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005394 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005395 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005396 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005397 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005398 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005399 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005400     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005401     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005402     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005403     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:38:09

   PAGE 236
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005404     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005405 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005406 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005407 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005408 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

SOURCE ID = L0005409 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005410 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005411 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005412 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005413 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

- - - -

Residential

```
     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005419     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0005420     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0005421     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0005422     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0005423     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   15:38:09

   PAGE 240
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005424 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005425 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005426 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005427 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005428 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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06/30/16
*** AERMET - VERSION 14134 *** *** ***

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005429 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005430 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005431 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005432 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005433 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005434 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005435 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005436 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005437 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005438 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005439 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005440 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005441 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005442 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005443 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
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Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0005453 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005454 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005455 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005456 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005457 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005458 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005463 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0005467 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005468 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005469 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005470 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005471 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005472 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005473 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

```
                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005477     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005478     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   15:38:09

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 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005479     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005480     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005481     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005482 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005483 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0005486 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005487 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005488 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005489 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005490 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005491 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005492 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005493 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005496 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005497 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005498 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005501 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005502 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005503 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005504 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Residential

SOURCE ID = L0005505 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005506 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005507 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005508 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005509 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005510 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005511 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005512 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005513 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005515 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005516 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005517 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005518 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0005519 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005520 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005521 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005522 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005523 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Residential

- - - - - - - -

SOURCE ID = L0005524 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005525 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005526 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005527 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005528 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                  Residential
     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -

 SOURCE ID = L0005529     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

 SOURCE ID = L0005530     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

 SOURCE ID = L0005531     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

 SOURCE ID = L0005532     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

 SOURCE ID = L0005533     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:38:09

   PAGE 262
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005534 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005535 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005536 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005537 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005538 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005539 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005540 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005541 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005542 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005543 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005544 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005545 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005546 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005547 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005548 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

PAGE 265
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005549 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005550 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005551 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005552 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005553 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

PAGE 266
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005554 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005555 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005556 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005557 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005558 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

PAGE 267
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0005563 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005564 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005565 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005566 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005567 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                  Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005568     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:38:09

   PAGE 269
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005569     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005570     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005571     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005572     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005573 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

PAGE 270
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005578 ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - -

```
 SOURCE ID = L0005582     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005583     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   15:38:09

   PAGE 272
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005584     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005585     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005586     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005587 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005588 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

PAGE 273
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005592 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005593 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005594 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005595 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0005596 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005597 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005598 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005599 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005600 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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Residential
.00000E+00

SOURCE ID = L0005601 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005602 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005603 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005606 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005607 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005608 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005609 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005610 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005611 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005612 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005613 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0005615 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005616 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005617 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005618 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005619 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005620 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005621 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005622 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005623 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005624 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005625 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005626 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005627 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005628 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005630 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005631 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005632 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005633 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Residential

SOURCE ID = L0005634 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005635 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005636 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005637 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005638 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SCALAR

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Residential
* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005644 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005645 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005646 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005647 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005648 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005649 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005650 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005651 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005652 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005653 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005654 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005655 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005656 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005657 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005658 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005659 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005660 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005661 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005662 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005663 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

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      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

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    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005669     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005670     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005671     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005672     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
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Residential

SOURCE ID = L0005673 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005674 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005675 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005676 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005677 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005678 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005679 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005680 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005681 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005682 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005683 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005688 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

SOURCE ID = L0005692 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005693 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005694 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005695 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005696 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005697 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005698 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005702 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005703 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005707 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005708 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005709 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005710 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0005711 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005712 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005713 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005714 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005715 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005716 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005717 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005718 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005721 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005722 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005723 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0005724 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

SOURCE ID = L0005725 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005726 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005727 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005728 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005729 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = L0005730 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005731 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005732 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005733 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005734 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005735     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005736     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005737     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005738     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

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 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005739     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Residential

.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005740 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005741 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005742 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005743 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

SOURCE ID = L0005744 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005745 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005746 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005747 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005748 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

SOURCE ID = L0005749 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005750 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005751 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005752 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005753 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

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     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005754     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005755     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005756     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005757     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005758     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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   PAGE 307
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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005759 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005760 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005761 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005762 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005763 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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06/30/16
*** AERMET - VERSION 14134 *** *** ***

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = L0005764 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005765 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005766 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005767 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = L0005768 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005769 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005770 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005771 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005772 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005773 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005774 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005775 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005776 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005777 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005778 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

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06/30/16
*** AERMET - VERSION 14134 *** *** ***
15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

SOURCE ID = L0005788 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005789 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005790 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005791 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005792 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = L0005793 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR
- - - -

Residential
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0005798 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc *** 06/30/16
*** AERMET - VERSION 14134 *** *** *** 15:38:09

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- - - -

Residential

SOURCE ID = L0005802 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = L0005803 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = L0005804 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = STCK1 ; SOURCE TYPE = POINT :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = STCK2 ; SOURCE TYPE = POINT :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential
.00000E+00

SOURCE ID = STCK3 ; SOURCE TYPE = POINT :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

SOURCE ID = STCK4 ; SOURCE TYPE = POINT :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6
.00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12
.10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18
.10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24
.00000E+00

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(480106.8, 3748414.6, 446.0, 780.0, 0.0); (480183.6, 3748455.4, 446.0, 780.0,
0.0);
(480229.6, 3748802.5, 449.2, 780.0, 0.0); (479799.0, 3748866.3, 450.7, 780.0,
0.0);
(480729.6, 3746810.3, 459.0, 780.0, 0.0);

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
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*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1

Residential
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\peri8.sfc Met Version: 14134
Profile file: ..\peri8.PFL
Surface format: FREE

Profile format: FREE

Surface station no.: 0 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2007 Year: 2007

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
07	01	01	1	01	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	133.	9.1	279.9	5.5
07	01	01	1	02	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	192.	9.1	279.2	5.5
07	01	01	1	03	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	160.	9.1	277.5	5.5
07	01	01	1	04	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	75.	9.1	277.5	5.5
07	01	01	1	05	-0.6	0.026	-9.000	-9.000	-999.	10.	2.6	0.19	1.00	1.00	0.50	282.	9.1	278.8	5.5
07	01	01	1	06	-0.6	0.026	-9.000	-9.000	-999.	10.	2.6	0.19	1.00	1.00	0.50	96.	9.1	277.5	5.5
07	01	01	1	07	-0.5	0.026	-9.000	-9.000	-999.	10.	3.0	0.19	1.00	1.00	0.50	129.	9.1	278.1	5.5
07	01	01	1	08	-0.4	0.026	-9.000	-9.000	-999.	10.	3.7	0.19	1.00	0.54	0.50	99.	9.1	277.5	5.5
07	01	01	1	09	27.8	0.091	0.542	0.005	196.	66.	-2.3	0.19	1.00	0.33	0.50	133.	9.1	278.1	5.5
07	01	01	1	10	76.9	0.104	1.050	0.005	516.	81.	-1.3	0.19	1.00	0.26	0.50	174.	9.1	281.4	5.5
07	01	01	1	11	110.0	0.109	1.374	0.009	810.	87.	-1.0	0.19	1.00	0.23	0.50	95.	9.1	284.9	5.5
07	01	01	1	12	125.7	0.201	1.589	0.018	1095.	216.	-5.5	0.19	1.00	0.22	1.30	94.	9.1	288.1	5.5
07	01	01	1	13	121.7	0.287	1.641	0.022	1248.	369.	-16.6	0.19	1.00	0.22	2.20	24.	9.1	291.4	5.5
07	01	01	1	14	102.8	0.414	1.559	0.021	1265.	639.	-59.1	0.19	1.00	0.23	3.60	13.	9.1	292.5	5.5
07	01	01	1	15	69.9	0.619	1.374	0.021	1276.	1169.	-291.2	0.19	1.00	0.27	5.80	318.	9.1	292.0	5.5

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                    Residential
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00   0.36    5.80  329.    9.1  291.4
 5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00   0.64    4.50  333.    9.1  289.9
 5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00   1.00    3.60  305.    9.1  288.8
 5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00   1.00    4.50  276.    9.1  287.5
 5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00   1.00    3.60  323.    9.1  287.5
 5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00   1.00    4.00  322.    9.1  288.1
 5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00   1.00    4.50   30.    9.1  288.1
 5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00   1.00    4.00  343.    9.1  287.0
 5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00   1.00    1.80  155.    9.1  283.8
 5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   15:38:09

   PAGE 320
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5 YEARS FOR SOURCE GROUP: ALL
 ***
                                INCLUDING SOURCE(S):     L0004494    , L0004495    , L0004496    , L0004497    ,
L0004498    ,
                L0004499    , L0004500    , L0004501    , L0004502    , L0004503    , L0004504    , L0004505    ,
L0004506    ,
                L0004507    , L0004508    , L0004509    , L0004510    , L0004511    , L0004512    , L0004513    ,
L0004514    ,
                L0004515    , L0004516    , L0004517    , L0004518    , L0004519    , L0004520    , L0004521    ,
. . .       ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                      ** CONC OF DPM      IN MICROGRAMS/M**3                          **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -
        480106.84    3748414.59        0.00003                      480183.64    3748455.37        0.00003

        480229.58    3748802.48        0.00003                      479799.02    3748866.27        0.00003

        480729.61    3746810.26        0.00003

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\ISCC\School\School.isc                          ***
    06/30/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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   PAGE 321
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   5 YEARS ***
```


Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Residential

** CONC OF DPM IN MICROGRAMS/M**3 **

NETWORK GROUP ID GRID-ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE
ALL	1ST HIGHEST VALUE IS	0.00003 AT (479799.02, 3748866.27, 450.66, 780.00, 0.00)	DC
	2ND HIGHEST VALUE IS	0.00003 AT (480106.84, 3748414.59, 446.00, 780.00, 0.00)	DC
	3RD HIGHEST VALUE IS	0.00003 AT (480183.64, 3748455.37, 446.00, 780.00, 0.00)	DC
	4TH HIGHEST VALUE IS	0.00003 AT (480229.58, 3748802.48, 449.17, 780.00, 0.00)	DC
	5TH HIGHEST VALUE IS	0.00003 AT (480729.61, 3746810.26, 458.99, 780.00, 0.00)	DC
	6TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00, 0.00)	
	7TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00, 0.00)	
	8TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00, 0.00)	
	9TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00, 0.00)	
	10TH HIGHEST VALUE IS	0.00000 AT (0.00, 0.00, 0.00, 0.00, 0.00)	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\ISCC\School\School.isc ***
06/30/16
*** AERMET - VERSION 14134 *** *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 1895 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 90 Calm Hours Identified

A Total of 1805 Missing Hours Identified (4.12 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** AERMOD Finishes Successfully ***
****

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 5.2:

RISK CALCULATIONS

Table A1

Quantification of Carcinogenic Risks

Residential Exposure Scenario

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.00065
DBR (l/kg)	302
EF (350/365)	0.95890411
conv factor	0.000001
DOSEair =	1.88233E-07
CPF	1.1E+00
ED	70
AT	70
RISKair =	2.07E-07
RISK Per Million =	0.21

Quantification of Non Carcinogenic Risks

Residential Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.00013

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Table A2
Quantification of Carcinogenic Risks
Worker Exposure Scenario

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1×10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.00414
DBR (l/kg)	149
EF (245/365)	0.671232877
conv factor	0.000001
DOSEair =	4.14057E-07
CPF	1.1E+00
ED	40
AT	70
RISKair =	2.60E-07
RISK Per Million =	0.26

Quantification of Non Carcinogenic Risks
Worker Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.000828

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Table A3
Quantification of Carcinogenic Risks
School Child Exposure Scenario

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.00003
DBR (l/kg)	581
EF (180/365)	0.493150685
conv factor	0.000001
DOSEair =	8.59562E-09
CPF	1.1E+00
ED	9
AT	70
RISKair =	1.22E-09
RISK Per Million =	0.001

Quantification of Non Carcinogenic Risks
School Child Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.000006

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 5.3:

DPM EMISSIONS FROM PROJECT TRUCKS

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

AVERAGE EMISSION FACTOR
SCAQMD 2018-2087

Speed	LHD1	MHD	HHD
0	0.433885	0.012737	0.00361
5	0.029018	0.013493	0.01346
25	0.01245	0.007038	0.00815

Speed	**Weighted Average Emissions**
0	**0.10001**
5	**0.01689**
25	**0.00890**

Year	Speed	LHD1	MHD	HHD
2018	0 mph	0.79237	0.318506	0.033047001
	5 mph	0.118906	0.264861	0.060229435
	25 mph	0.039063	0.105149	0.030573797
2019	0 mph	0.785893	0.265333	0.028932169
	5 mph	0.113867	0.200402	0.054609263
	25 mph	0.037792	0.085494	0.028215482
2020	0 mph	0.776866	0.152423	0.01632181
	5 mph	0.108467	0.067683	0.0413094
	25 mph	0.036392	0.047065	0.023472852
2021	0 mph	0.764808	0.018632	0.014388297
	5 mph	0.102795	0.014181	0.035796349
	25 mph	0.034878	0.008087	0.021145027
2022	0 mph	0.748926	0.015736	0.012631094
	5 mph	0.096792	0.012873	0.031840065
	25 mph	0.033228	0.007374	0.018749452
2023	0 mph	0.732006	0.007051	0.008043089
	5 mph	0.09067	0.006767	0.012539176
	25 mph	0.031516	0.003954	0.0075383
2024	0 mph	0.713873	0.006123	0.007278717
	5 mph	0.08443	0.006719	0.01247209
	25 mph	0.029748	0.003967	0.007532255
2025	0 mph	0.69507	0.005269	0.006630151
	5 mph	0.078217	0.006658	0.012365025
	25 mph	0.027963	0.003967	0.007496328
2026	0 mph	0.675079	0.004542	0.006035825
	5 mph	0.072089	0.006587	0.012221168
	25 mph	0.026177	0.003955	0.007433986
2027	0 mph	0.653271	0.003989	0.005502393
	5 mph	0.066183	0.006502	0.012079574
	25 mph	0.024426	0.00393	0.007370102

2028	0 mph	0.631137	0.003543	0.005066544
	5 mph	0.060559	0.006445	0.011959475
	25 mph	0.022738	0.003917	0.007315487
2029	0 mph	0.607532	0.003188	0.004550467
	5 mph	0.055156	0.006387	0.011806858
	25 mph	0.021097	0.0039	0.007240578
2030	0 mph	0.584502	0.002857	0.004058412
	5 mph	0.050141	0.006322	0.011648329
	25 mph	0.019555	0.003877	0.0071606
2031	0 mph	0.561275	0.00258	0.00368926
	5 mph	0.045479	0.00626	0.011516857
	25 mph	0.018103	0.003852	0.007093872
2032	0 mph	0.541441	0.00237	0.003383885
	5 mph	0.041392	0.006203	0.011385668
	25 mph	0.01681	0.003829	0.007026898
2033	0 mph	0.522448	0.002196	0.003078176
	5 mph	0.037788	0.006154	0.011261433
	25 mph	0.015652	0.003809	0.006964223
2034	0 mph	0.503866	0.002055	0.002750014
	5 mph	0.034529	0.006103	0.011132304
	25 mph	0.014593	0.003786	0.006899484
2035	0 mph	0.486447	0.001926	0.002495272
	5 mph	0.031578	0.00605	0.011031422
	25 mph	0.013629	0.003761	0.006849825
2036	0 mph	0.470384	0.001818	0.002352542
	5 mph	0.028981	0.005998	0.010971038
	25 mph	0.012773	0.003737	0.006823726
2037	0 mph	0.455082	0.00174	0.002239967
	5 mph	0.026618	0.005951	0.01092839
	25 mph	0.011989	0.003713	0.006805247
2038	0 mph	0.440642	0.001674	0.002146598
	5 mph	0.024519	0.005914	0.010904338
	25 mph	0.011288	0.003694	0.006796094
2039	0 mph	0.427796	0.001621	0.002035919
	5 mph	0.022675	0.005882	0.0108819
	25 mph	0.010669	0.003677	0.006790942
2040	0 mph	0.41617	0.001572	0.001957292
	5 mph	0.021118	0.005856	0.010872957
	25 mph	0.01014	0.003664	0.006790877
2041	0 mph	0.405665	0.001532	0.001893924
	5 mph	0.019763	0.005834	0.0108664
	25 mph	0.009679	0.003652	0.006791336
2042	0 mph	0.396259	0.0015	0.001841465
	5 mph	0.018617	0.005816	0.010863683
	25 mph	0.009287	0.003643	0.006794107
2043	0 mph	0.388144	0.001472	0.001799068
	5 mph	0.017696	0.005803	0.010863687
	25 mph	0.008967	0.003637	0.006798152
2044	0 mph	0.380136	0.001448	0.001752527
	5 mph	0.016747	0.005793	0.010861017
	25 mph	0.008648	0.003632	0.006801351

2045	0 mph	0.372913	0.001425	0.001703377
	5 mph	0.015908	0.005786	0.010855396
	25 mph	0.008367	0.003629	0.006803496
2046	0 mph	0.365937	0.001407	0.00165982
	5 mph	0.015092	0.005782	0.010851429
	25 mph	0.008099	0.003627	0.00680546
2047	0 mph	0.359557	0.001392	0.001625269
	5 mph	0.014363	0.005778	0.010849564
	25 mph	0.007862	0.003625	0.006806968
2048	0 mph	0.353391	0.001381	0.001588277
	5 mph	0.013649	0.005778	0.01085121
	25 mph	0.007633	0.003625	0.006808583
2049	0 mph	0.347599	0.001373	0.001557941
	5 mph	0.013005	0.005779	0.010855216
	25 mph	0.007427	0.003625	0.006810689
2050	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2051	0 mph	0.347599	0.001373	0.001557941
	5 mph	0.013005	0.005779	0.010855216
	25 mph	0.007427	0.003625	0.006810689
2052	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2053	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2054	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2055	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2056	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2057	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2058	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2059	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2060	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2061	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526

2062	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2063	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2064	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2065	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2066	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2067	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2068	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2069	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2070	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2071	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2072	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2073	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2074	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2075	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2076	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2077	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2078	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526

2079	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2080	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2081	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2082	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2083	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2084	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2085	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2086	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526
2087	0 mph	0.342374	0.001367	0.001534072
	5 mph	0.012445	0.00578	0.01086022
	25 mph	0.007248	0.003626	0.006813526

AVERAGE EMISSION FACTOR
SCAQMD 2018-2057

Speed	LHD1	MHD	HHD
0	0.501474	0.01838	0.00627
5	0.038897	0.016887	0.01550
25	0.01572	0.008565	0.00919

Speed	**Weighted Average Emissions**
0	**0.11750**
5	**0.02090**
25	**0.01052**

Year	Speed	LHD1	MHD	HHD
2018	0 mph	0.797224	0.278174	0.044570434
	5 mph	0.111528	0.221972	0.060043409
	25 mph	0.037058	0.088593	0.030634806
2019	0 mph	0.789742	0.227647	0.038305427
	5 mph	0.106225	0.164772	0.054504214
	25 mph	0.03572	0.070994	0.028300161
2020	0 mph	0.779549	0.130914	0.022508763
	5 mph	0.100705	0.057329	0.041607954
	25 mph	0.034289	0.039832	0.023662018
2021	0 mph	0.765814	0.015921	0.018815229
	5 mph	0.095027	0.012803	0.036249172
	25 mph	0.032775	0.007476	0.021383743
2022	0 mph	0.74834	0.013362	0.01484053
	5 mph	0.089172	0.011645	0.032311715
	25 mph	0.031165	0.006825	0.019005407
2023	0 mph	0.729799	0.005355	0.009751114
	5 mph	0.083296	0.006312	0.012803391
	25 mph	0.029521	0.003795	0.007623878
2024	0 mph	0.710253	0.004579	0.008709656
	5 mph	0.077412	0.006297	0.012704459
	25 mph	0.027851	0.003812	0.007607986
2025	0 mph	0.690394	0.003962	0.007741953
	5 mph	0.071631	0.006271	0.012554254
	25 mph	0.026186	0.003819	0.007556373
2026	0 mph	0.669535	0.003488	0.006950832
	5 mph	0.065988	0.006237	0.012384383
	25 mph	0.024536	0.003816	0.007485729
2027	0 mph	0.647001	0.003126	0.006078038
	5 mph	0.060594	0.006186	0.012193283
	25 mph	0.022931	0.0038	0.007402399
2028	0 mph	0.62464	0.002809	0.00555985
	5 mph	0.055507	0.006155	0.012061678

	25 mph	0.021395	0.003794	0.007345112
2029	0 mph	0.601184	0.00255	0.005005429
	5 mph	0.050674	0.006123	0.011905036
	25 mph	0.019917	0.003785	0.007270531
2030	0 mph	0.578314	0.002314	0.00447508
	5 mph	0.046191	0.006084	0.011742445
	25 mph	0.018527	0.00377	0.007190514
2031	0 mph	0.555789	0.002136	0.00398068
	5 mph	0.042066	0.006048	0.011595959
	25 mph	0.01723	0.003755	0.007118472
2032	0 mph	0.536566	0.001993	0.003689976
	5 mph	0.038468	0.006013	0.011474401
	25 mph	0.016077	0.00374	0.007057172
2033	0 mph	0.517997	0.001881	0.003395156
	5 mph	0.035267	0.005985	0.011357635
	25 mph	0.015034	0.003728	0.006999086
2034	0 mph	0.500242	0.00179	0.003088982
	5 mph	0.032423	0.005954	0.011239035
	25 mph	0.014092	0.003714	0.006940349
2035	0 mph	0.483189	0.001713	0.002824311
	5 mph	0.029788	0.005921	0.011138358
	25 mph	0.013216	0.003697	0.006892119
2036	0 mph	0.467738	0.001652	0.002627241
	5 mph	0.027502	0.005889	0.011064121
	25 mph	0.012449	0.003681	0.00686232
2037	0 mph	0.452947	0.001602	0.002475895
	5 mph	0.02541	0.005859	0.011012599
	25 mph	0.01174	0.003665	0.006841237

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

2038	0 mph	0.438979	0.001564	0.002344769
	5 mph	0.023538	0.005836	0.010979915
	25 mph	0.011101	0.003653	0.006829631
2039	0 mph	0.426504	0.001531	0.002235251
	5 mph	0.02188	0.005818	0.010961271
	25 mph	0.010532	0.003643	0.006824697
2040	0 mph	0.415137	0.001502	0.002130339
	5 mph	0.020462	0.005802	0.010947318
	25 mph	0.01004	0.003635	0.006823177
2041	0 mph	0.404953	0.001476	0.002037225
	5 mph	0.019241	0.00579	0.010934086
	25 mph	0.009614	0.003628	0.006821976
2042	0 mph	0.395858	0.001453	0.001969833
	5 mph	0.018211	0.00578	0.010928056
	25 mph	0.009252	0.003623	0.006823783
2043	0 mph	0.387965	0.001435	0.001912267
	5 mph	0.017379	0.005775	0.010923925
	25 mph	0.008954	0.003621	0.006826753
2044	0 mph	0.380329	0.001418	0.001848363
	5 mph	0.016539	0.005771	0.010915981
	25 mph	0.008663	0.003619	0.006828726
2045	0 mph	0.373428	0.001404	0.001783717
	5 mph	0.015791	0.005769	0.010905325
	25 mph	0.008406	0.003618	0.006829696
2046	0 mph	0.366773	0.001393	0.001725535
	5 mph	0.015057	0.005768	0.010896323
	25 mph	0.008158	0.003619	0.006830451
2047	0 mph	0.360684	0.001382	0.001667877
	5 mph	0.014402	0.005768	0.010884771
	25 mph	0.007939	0.003619	0.006830451
2048	0 mph	0.354783	0.001373	0.001628782
	5 mph	0.013752	0.00577	0.010886244
	25 mph	0.007725	0.00362	0.006831119
2049	0 mph	0.34925	0.001368	0.001595328
	5 mph	0.013164	0.005772	0.010889723
	25 mph	0.007532	0.003621	0.006832867
2050	0 mph	0.344114	0.001364	0.001556576
	5 mph	0.01263	0.005774	0.010892846
	25 mph	0.007358	0.003623	0.006834309

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

2051	0 mph	0.34925	0.001368	0.001595328
	5 mph	0.013164	0.005772	0.010889723
	25 mph	0.007532	0.003621	0.006832867
2052	0 mph	0.344114	0.001364	0.001556576
	5 mph	0.01263	0.005774	0.010892846
	25 mph	0.007358	0.003623	0.006834309
2053	0 mph	0.344114	0.001364	0.001556576
	5 mph	0.01263	0.005774	0.010892846
	25 mph	0.007358	0.003623	0.006834309
2054	0 mph	0.344114	0.001364	0.001556576
	5 mph	0.01263	0.005774	0.010892846
	25 mph	0.007358	0.003623	0.006834309
2055	0 mph	0.344114	0.001364	0.001556576
	5 mph	0.01263	0.005774	0.010892846
	25 mph	0.007358	0.003623	0.006834309
2056	0 mph	0.344114	0.001364	0.001556576
	5 mph	0.01263	0.005774	0.010892846
	25 mph	0.007358	0.003623	0.006834309
2057	0 mph	0.344114	0.001364	0.001556576
	5 mph	0.01263	0.005774	0.010892846
	25 mph	0.007358	0.003623	0.006834309

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

AVERAGE EMISSION FACTOR
SCAQMD 2018-2026

Speed	LHD1	MHD	HHD
0	0.742294	0.075933	0.01913
5	0.088998	0.054849	0.03057
25	0.03101	0.02544	0.01703

Speed	**Weighted Average Emissions**
0	**0.18848**
5	**0.04773**
25	**0.02159**

Year	Speed	LHD1	MHD	HHD
2018	0 mph	0.797224	0.278174	0.044570434
	5 mph	0.111528	0.221972	0.060043409
	25 mph	0.037058	0.088593	0.030634806
2019	0 mph	0.789742	0.227647	0.038305427
	5 mph	0.106225	0.164772	0.054504214
	25 mph	0.03572	0.070994	0.028300161
2020	0 mph	0.779549	0.130914	0.022508763
	5 mph	0.100705	0.057329	0.041607954
	25 mph	0.034289	0.039832	0.023662018
2021	0 mph	0.765814	0.015921	0.018815229
	5 mph	0.095027	0.012803	0.036249172
	25 mph	0.032775	0.007476	0.021383743
2022	0 mph	0.74834	0.013362	0.01484053
	5 mph	0.089172	0.011645	0.032311715
	25 mph	0.031165	0.006825	0.019005407
2023	0 mph	0.729799	0.005355	0.009751114
	5 mph	0.083296	0.006312	0.012803391
	25 mph	0.029521	0.003795	0.007623878
2024	0 mph	0.710253	0.004579	0.008709656
	5 mph	0.077412	0.006297	0.012704459
	25 mph	0.027851	0.003812	0.007607986
2025	0 mph	0.690394	0.003962	0.007741953
	5 mph	0.071631	0.006271	0.012554254
	25 mph	0.026186	0.003819	0.007556373
2026	0 mph	0.669535	0.003488	0.006950832
	5 mph	0.065988	0.006237	0.012384383
	25 mph	0.024536	0.003816	0.007485729

Emission Rates - Residential Exposure (Average of emission factors for years 2018 through 2087)

Truck Emission Rates (70 year average)						
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
95% Inbound from I-215 Freeway	167	307.10	0.0089		2.86	3.315E-05
90% Outbound to I-215 Freeway	158	290.94	0.0089		2.71	3.140E-05
5% Inbound from Nandina Avenue	9	9.87	0.0089		0.09	1.066E-06
5% Outbound to Nandina Avenue	9	9.87	0.0089		0.09	1.066E-06
5% Outbound to Grove View Road	9	5.38	0.0089		0.05	5.809E-07
On-Site Idling	176			0.1000	4.40	5.093E-05
On-Site Travel	352	83.14	0.0169		1.42	1.639E-05

Attachment: Appendix C - Air Quality Analysis [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Emission Rates - Worker Exposure (Average of emission factors for years 2018 through 2057)

Truck Emission Rates (40 year average)						
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
95% Inbound from I-215 Freeway	167	307.10	0.0105		3.39	3.925E-05
90% Outbound to I-215 Freeway	158	290.94	0.0105		3.21	3.718E-05
5% Inbound from Nandina Avenue	9	9.87	0.0105		0.20	2.337E-06
5% Outbound to Nandina Avenue	9	9.87	0.0105		0.11	1.262E-06
5% Outbound to Grove View Road	9	5.38	0.0105		0.06	6.878E-07
On-Site Idling	176			0.1175	5.17	5.984E-05
On-Site Travel	352	83.14	0.0209		1.75	2.028E-05

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Emission Rates - School Child Exposure (Average of emission factors for years 2018 through 2026)

Truck Emission Rates (9 year average)						
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
95% Inbound from I-215 Freeway	167	307.10	0.0216		7.03	8.135E-05
90% Outbound to I-215 Freeway	158	290.94	0.0216		6.66	7.707E-05
5% Inbound from Nandina Avenue	9	9.87	0.0216		0.23	2.615E-06
5% Outbound to Nandina Avenue	9	9.87	0.0216		0.23	2.615E-06
5% Outbound to Grove View Road	9	5.38	0.0216		0.12	1.426E-06
On-Site Idling	176			0.1885	8.29	9.598E-05
On-Site Travel	352	83.14	0.0477		4.00	4.634E-05

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Idling / TRU Unmitigated

Emission Factor:

TRU EF	0.028571429	g/bhp-hr	weighted average (2018-2020 and 2021-2087)
TRU HP	34	HP	
TRU Load Factor	0.53		
TRU EF @34 HP and 0.53 LF	0.514857143	g/idle-hr	

Emission Calculations:

TRUs Building 1

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	56	truck trip/day (one-way)
Idle Rate	840	idle minutes/day
	0.583333333	idle-hrs/hr
Total Emissions:	**0.000083426**	**g/s**
Emissions per TRU Source:	**0.000020856**	**g/s**

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Idling / TRU Unmitigated

Emission Factor:

TRU EF	0.035	g/bhp-hr	weighted average (2018-2020 and 2021-2057)
TRU HP	34	HP	
TRU Load Factor	0.53		
TRU EF @34 HP and 0.53 LF	0.6307	g/idle-hr	

Emission Calculations:

TRUs Building 1

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	56	truck trip/day (one-way)
Idle Rate	840	idle minutes/day
	0.583333333	idle-hrs/hr
Total Emissions:	**0.000102197**	**g/s**
Emissions per TRU Source:	**0.000025549**	**g/s**

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Idling / TRU Unmitigated

Emission Factor:

TRU EF	0.086666667	g/bhp-hr	weighted average (2018-2020 and 2021-2026)
TRU HP	34	HP	
TRU Load Factor	0.53		
TRU EF @34 HP and 0.53 LF	1.561733333	g/idle-hr	

Emission Calculations:

TRUs Building 1

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	56	truck trip/day (one-way)
Idle Rate	840	idle minutes/day
	0.583333333	idle-hrs/hr
Total Emissions:	**0.000253059**	**g/s**
Emissions per TRU Source:	**0.000063265**	**g/s**

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Indian Street Commerce Center

GREENHOUSE GAS ANALYSIS

CITY OF MORENO VALLEY

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JULY 7, 2016

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LIST OF ABBREVIATED TERMS

(1)	Reference
ARB	California Air Resources Board
AQIA	Air Quality Impact Analysis
BAU	Business as Usual
CAA	Federal Clean Air Act
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CAP	Climate Action Plan
CAT	Climate Action Team
CBSC	California Building Standards Commission
CCR	California Code of Regulations
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH4	Methane
CO2	Carbon Dioxide
CO2e	Carbon Dioxide Equivalent
CO	Carbon Monoxide
CREED	Citizens for Responsible Equitable Environmental Development
EISA	Energy Independence and Security Act
EPA	Environmental Protection Agency
EPS	Emission Performance Standard
GCC	Global Climate Change
GHGA	Greenhouse Gas Analysis
Gg	Gigagrams
GWP	Global Warming Potential
HFCs	Hydrofluorocarbons
LCA	Life-Cycle Analysis
MMs	Mitigation Measures
MMTCO2e	Million Metric Ton of Carbon Dioxide Equivalent
MTCO2e	Metric Ton of Carbon Dioxide Equivalent

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NEPA	National Environmental Policy Act
NHTSA	National Highway Traffic Safety Administration
NIOSH	National Institute for Occupational Safety and Health
NOx	Oxides of Nitrogen
PFCs	Perfluorocarbons
PM10	Particulate Matter 10 microns in diameter or less
PM2.5	Particulate Matter 2.5 microns in diameter or less
PPM	Parts Per Million
Project	Indian Street Commerce Center
RTP	Regional Transportation Plan
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
TSF	Thousand Square Feet
UNFCCC	United Nations' Framework Convention on Climate Change
USEPA	United States Environmental Protection Agency
WCI	Western Regional Climate Action Initiative
ZEV	Zero Emission Vehicle

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EXECUTIVE SUMMARY

For informational purposes herein, the Project's GHG emissions are evaluated to determine if they fall 28.5% or more below 2005 BAU, in accordance with the goals of AB 32. The total amount of Project-related GHG emissions for 2005 BAU without accounting for any project design features or regulatory developments that would reduce GHG emissions from direct and indirect sources combined would total 14,948.63 MMTCO2e.

The total amount of Project-related GHG emissions when accounting for applicable regulatory developments and project design features that would reduce GHG emissions from direct and indirect sources combined would total 11,498.60 MMTCO2e in 2020. This results in a 23.08% reduction from 2005 BAU, thus with implementation of the Project's design features and regulatory developments, the Project's GHG reduction would not meet the AB 32 reduction target of 28.5% (1). Both of these quantities are above the significance criterion used herein of 10,000 MTCO2e per year. Thus, GHG emissions is a significant cumulatively considerable impact of the proposed Project.

INCREMENTAL PROJECT GHG EMISSIONS ARE CUMULATIVELY CONSIDERABLE

The City of Moreno Valley does not have an adopted threshold of significance for GHG emissions. For CEQA purposes, the City has discretion to select an appropriate significance criterion, based on substantial evidence. The AQMD's adopted numerical threshold of 10,000 MTCO2e per year for industrial stationary source emissions is selected as the significance criterion. The AQMD-adopted industrial threshold was selected by the City because the proposed Project is analogous to an industrial use much more closely than any other land use such as commercial or residential in terms of its expected operating characteristics. The Project proposes large buildings with loading bays and fenced truck courts that are expected to house businesses that serve mid- stream functions in the goods movement chain between manufacturers and consumers, characteristic of an industrial operation. Further, analysis of the Project's traffic generation in this Environmental Impact Report (EIR) is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012 for industrial and warehouse uses. Also, 10,000 MTCO2e has been used as the significance threshold by many local government lead agencies for logistics projects throughout the SCAG region since the AQMD adopted this threshold for its own use. Further, to ensure that the threshold is conservative in its application, although the AQMD uses their adopted 10,000 MTCO2e threshold to determine the significance of stationary source emissions for industrial projects, the 10,000 MTCO2e threshold used in this EIR is applied to all sources of Project-related GHG emissions whether stationary source, mobile source, area source, or other.

Use of this threshold is also consistent with guidance provided in the CAPCOA *CEQA and Climate Change* handbook, as such the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD

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using this method is 10,000 metric tons carbon dioxide equivalent (MTCO2E) per year for industrial projects. This threshold is based on the review of 711 CEQA projects.

The Project will result in approximately 1,338.22 MTCO2e per year (approximately 11% of total Project GHG emissions) from construction, area, energy, waste, water usage, and on-site emissions. In addition, the Project has the potential to result in an additional 10,816.76 MTCO2e per year (approximately 89% of total Project GHG emissions) from mobile sources, if the assumption is made that all of the vehicle trips to and from the Project are "new" trips resulting from the development of the Project. As such, the Project has the potential to generate a total of approximately 12,154.98 MTCO2e per year in 2018 and would exceed the SCAQMD's numeric threshold of 10,000 MTCO2e if it were applied. Neither the Project Applicant nor the Lead Agency can substantively or materially affect reductions in Project mobile-source GHG emissions. These emissions sources are regulated by CARB and USEPA. As a result of CARB and USEPA actions, Basin-wide vehicular-source emissions (including GHG Emissions) have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve. Future CARB and USEPA actions could be expected to have a positive effect on Project-related vehicular-source emissions, resulting in incremental reductions in vehicular-source GHG emissions when compared to GHG emissions estimates presented here. No further feasible measures are available that would substantively mitigate the Project's operational-source GHG emissions.[1] Thus, the Project has the potential to result in a cumulatively considerable impact with respect to GHG emissions.

1 It is noted further, that in developing the 10,000 MT CO2e/year significance threshold for industrial uses, SCAQMD specifically excluded GHG emissions from mobile sources. If this same protocol was employed here rather than the conservative approach taken, Project GHG emissions would total less than 1,400 MTCO2e/year; substantively less than the 10,000 MT CO2e/year significance threshold employed by SCAQMD.

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1 INTRODUCTION

This report presents the results of greenhouse gas analysis (GHGA) prepared by Urban Crossroads, Inc. for the proposed Indian Street Commerce Center ("Project"). The purpose of this GHGA is to evaluate Project-related construction and operational emissions and determine the level of greenhouse gas (GHG) impacts as a result of constructing and operating the proposed Project.

1.1 SITE LOCATION

The proposed Indian Street Commerce Center site is located at 17845 Indian Street in the City of Moreno Valley, as shown on Exhibit 1-A. Interstate 215 (I-215) Freeway is located approximately one mile west of the Project site. The March Air Reserve Base/Inland Port Airport (MARB/IPA) is located approximately one-half mile west of the Project site.

1.2 STUDY AREA

The Project site is currently vacant and is designated by the City of Moreno Valley General Plan Land Use Map, Figure 2-2, as Business Park/Light Industrial land use. (2) The properties adjacent to the Project site on all sides are also designated as Business Park/Light Industrial land use. Existing Open Space land use is located west of the Project site at the southern boundary of the MARB/IPA. The existing land uses are shown on Exhibit 1-B.

1.3 PROJECT DESCRIPTION

The Project is proposed to consist of approximately 446,350 square feet, of which 357,080 square feet would be allocated to high-cube warehouse/distribution center use and 89,270 square feet to manufacturing use within a single building. Supporting office uses would be also incorporated in the building design. The Project's site plan is illustrated on Exhibit 1-C. The Project is anticipated to have an Opening Year of 2018[2].

As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) will be powered by non-diesel fueled engines and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

The City of Moreno Valley's General Plan Land Use designation for the Project site is Business Park/Light Industrial (BP/LI), which allows for "manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities (2)." The land uses and development proposed by the Project are permitted/conditionally permitted under

[2] Notwithstanding, the Traffic Impact Analysis (TIA) prepared for the project evaluates an Opening Year of 2020 since the City of Moreno Valley traffic study guidelines require the Opening Year to be a minimum of 5 years from baseline (2015) conditions. Using a 2018 Opening Year for purposes of the GHGA herein represents a conservative estimate of emissions compared to if a 2020 opening year consistent with the traffic study were utilized.

the Project site's current BP/LI Land Use designations. The Project is located within Specific Plan 208 (SP 208), Moreno Valley Industrial Area Plan (MVIAP) (formerly the Oleander Specific Plan. SP 208 land uses of the Project site are zoned Industrial. The development concepts and uses proposed by the Project are permitted or conditionally permitted under the site's current SP 208 Industrial zoning designation. As such, the Project's land uses and development are permitted/conditionally permitted under the City General Plan Land Use designations and under the SP 208's zoning designation. Therefore, no changes are proposed to these existing designations.

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EXHIBIT 1-A: LOCATION MAP

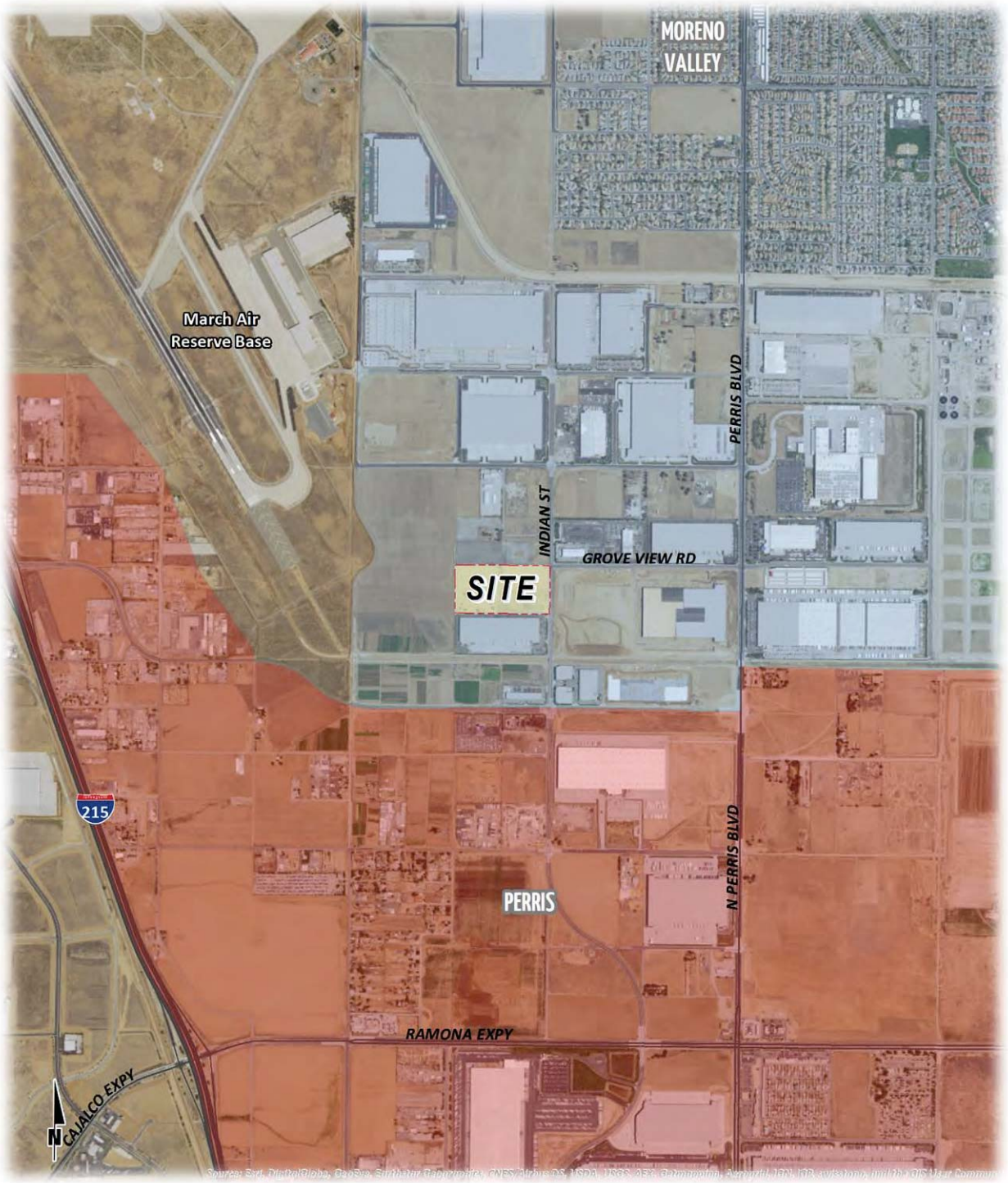

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EXHIBIT 1-B: EXISTING LAND USES



Source: Google Earth, Applied Planning.

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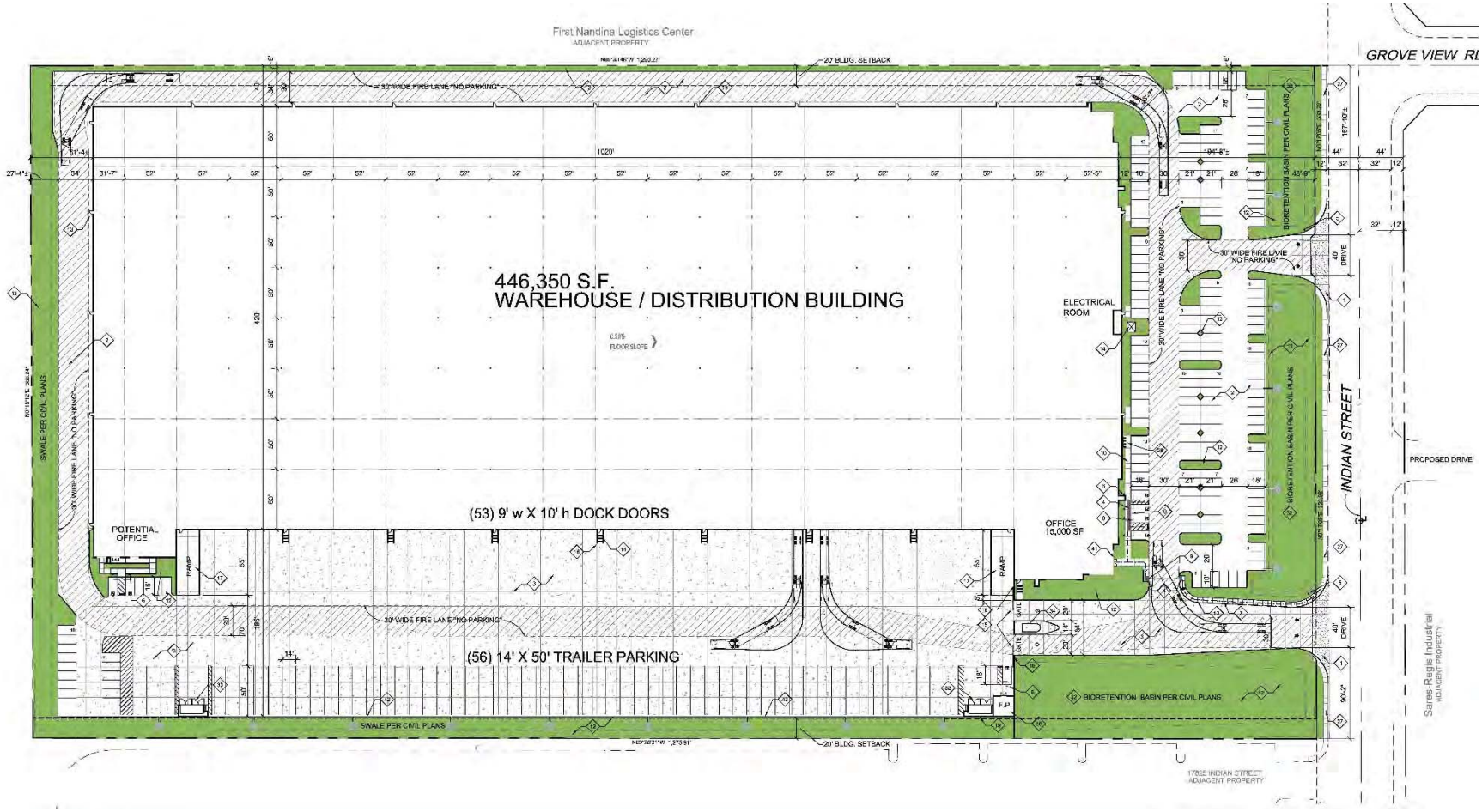
EXHIBIT 1-C: SITE PLAN



1.4 PROJECT DESIGN FEATURES

Energy-saving and sustainable design features and operational programs would be incorporated into all facilities developed pursuant to the Indian Street Commerce Center. The Project in total would **provide** sustainable design features necessary to achieve a "Certified" rating under the United States Green Building Council's Leadership in Energy & Environmental Design (LEED) programs. The Project also incorporates and expresses the following design features and attributes promoting energy efficiency and sustainability. Because these features/attributes are integral to the Project, and/or are regulatory requirements, they are not considered to be mitigation measures.

- The Project design concept allow for inclusion of a photo-voltaic electrical generation system (PV system) capable of generating sufficient power to serve all Project office areas. Energy savings from such a PV system is preliminarily estimated at 160,350 kilowatt hours per year. Alternatively, as a Condition of Approval, the Project would be required to obtain an equivalent amount of electricity from a utility provide that receives its energy from renewable (non-fossil fuel) sources, and provide documentation to this effect to the City.
- All on-site cargo handling equipment (CHE) would be powered by non-diesel fueled engines (e.g., electric or natural gas).
- Regional vehicle miles traveled (VMT) and associated vehicular-source emissions are reduced by the following Project design features/attributes:
    - Sidewalks along the Project site's Indian Street frontage would be constructed as part of the Project, and would connect to existing and planned sidewalks to the north and south of the Project site. Facilitating pedestrian access encourages people to walk instead of drive. The Project would not impose barriers to pedestrian access and interconnectivity.
    - Distribution warehouse uses proposed by the Project act to reduce truck travel distances and truck trips within the region by consolidating and reducing requirements for single-delivery truck trips.
- To reduce water demands and associated energy use, development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy)[3]. Development proposals within the Specific Plan Area would also be required to implement the following:
    - Landscaping palette emphasizing drought tolerant plants consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;
    - Use of water-efficient irrigation techniques consistent with provisions of the MVIAP and/or City of Moreno Valley requirements;
    - U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads.

3 Reduction of 20% indoor water usage is consistent with the current CalGreen Code performance standards for residential and non-residential land uses. Per CalGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

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- The Project in total would surpass by a minimum of 5%, incumbent performance standards established under the Building Energy Efficiency Standards contained in the California Code of Regulations (CCR), Title 24, Part 6 (Title 24, Title 24 Energy Efficiency Standards).

1.5 OTHER REQUIREMENTS

The Project would be required to comply with regulations imposed by the State of California and the South Coast Air Quality Management District aimed at the reduction of air pollutant emissions. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of greenhouse gas emissions include:

- Global Warming Solutions Act of 2006 (AB32) (1). AB 32 is applicable to the Project because, as a development Project, the Indian Street Commerce Center will need to meet 2020 GHG reduction goals set forth in AB 32. AB 32 requires the California Air Resources Board (CARB or ARB) to develop regulations and market mechanisms to reduce California's greenhouse gas emissions to 1990 levels by the year of 2020. Many of the GHG reduction measures outlined in AB 32 (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted over the last five years and implementation activities are ongoing.
- Pavley Fuel Efficiency Standards (AB1493). Establishes fuel efficiency ratings for new vehicles (3). AB 1493 (Pavley) establishes fuel efficiency rating for model year 2009-2016 passenger cars and light trucks. AB 1493 is applicable to the Project because model year 2009-2016 passenger cars and light duty truck vehicles traveling to and from the Project site are required by the State of California to implement GHG emission reduction standards related to fuel efficiency. The CARB anticipates that implementation of the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 30 percent in 2016 compared to emissions that occurred prior to 2009 when AB 1492 was enacted.
- Title 24 California Code of Regulations (California Building Code). Establishes energy efficiency requirements for new construction (4). The Title 24 energy standards address the energy efficiency of new (and altered) homes and commercial buildings. Because energy efficiency reduces energy costs, increases reliability and availability of electricity, improves building occupant comfort, and reduces impacts to the environment, standards are important and necessary for California's energy future. Therefore, a new development such as the Indian Street Commerce Center is required to comply with Title 24 Code of Regulations and would therefore increase the Project's energy efficiency and reduce its environmental impact.
- Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020 (5). Because the LCFS applies to any transportation fuel that is sold, supplied, or offered for sale in California, and to any person who, as a regulated party, is responsible for a transportation fuel in a calendar year, all vehicles accessing the site will be required to comply with LCFS. Implementation of such a standard will reduce greenhouse gas emissions by reducing the full fuel-cycle, carbon intensity of the transportation fuel pool used in California.
- California Water Conservation in Landscaping Act of 2006 (AB1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscapes (6). As a new development project within the State of California, the Indian Street Commerce Center is required to comply with the City of Moreno Valley's adopted water efficient landscape requirements and would therefore be consistent with

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the requirements of AB1881 in order to help conserve California's water resources and to promote efficient water use.

1.6 Construction Activity Mitigation Measures

The Project Air Quality Impact Analysis (AQIA) establishes construction activity mitigation measures that would globally reduce air pollutant emissions generated by development of the Project site. Although these measures could act to reduce GHG emissions, there is insufficient data to support any substantive reductions in GHG emissions associated with the construction activity mitigation measures identified in the AQIA. Thus, as a conservative measure no reduction in GHG emissions are taken for construction activity mitigation measures identified in the AQIA.

1.7 Operational Activity Mitigation Measures

The Project Air Quality Impact Analysis (AQIA) establishes operational activity mitigation measures that would globally reduce air pollutant emissions generated by development within the Project site. Although these measures could act to reduce GHG emissions, there is insufficient data to support any substantive reductions in GHG emissions associated with the operational activity mitigation measures identified in the AQIA. Thus, as a conservative measure no reduction in GHG emissions are taken for operational activity mitigation measures identified in the AQIA.

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2 BACKGROUND

2.1 INTRODUCTION TO GLOBAL CLIMATE CHANGE

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. GCC is currently one of the most controversial environmental issues in the United States, and much debate exists within the scientific community about whether or not GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred in the past over the course of thousands or millions of years. These historical changes to the Earth's climate have occurred naturally without human influence, as in the case of an ice age. However, many scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases in the earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of greenhouse gases resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed Project evaluated in this GHGA cannot generate enough greenhouse gas emissions to effect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of greenhouse gasses combined with the cumulative increase of all other sources of greenhouse gases, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, Section 3.0 will evaluate the potential for the proposed Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

2.2 GREENHOUSE GAS EMISSIONS INVENTORIES

Global

Worldwide anthropogenic (man-made) GHG emissions are tracked by the Intergovernmental Panel on Climate Change for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Man-made GHG emissions data for Annex I nations are available through 2012. For the Year 2011 the sum of these emissions totaled approximately 28,865,994 gigagrams (Gg) Carbon Dioxide Equivalent (CO_2e[4]) (7) (8). The GHG emissions in more recent years may differ from the inventories presented in Table 2-1; however, the data is representative of currently available inventory data.

United States

As noted in Table 2-1, the United States, as a single country, was the number two producer of GHG emissions in 2012. The primary greenhouse gas emitted by human activities in the United

[4] The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2005 data, the UNFCCC data for the most recent year were used. United Nations Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF,"

States was CO2, representing approximately 83 percent of total greenhouse gas emissions (9). Carbon dioxide from fossil fuel combustion, the largest source of US greenhouse gas emissions, accounted for approximately 78 percent of the GHG emissions.

TABLE 2-1: TOP GHG PRODUCER COUNTRIES AND THE EUROPEAN UNION[5]

Emitting Countries	GHG Emissions (Gg CO2e)
China	10,975,500
United States	6,665,700
European Union (27 member countries)	4,544,224
Russian Federation	2,322,220
India	3,013,770
Japan	1,344,580
Total	**28,865,994**

State of California

CARB compiles GHG inventories for the State of California. CARB GHG inventory data indicates that in 2013 (the most recent inventory of record) California GHG emissions totaled approximately 459.3 Million Metric Tons of Carbon Dioxide Equivalent ($MMTCO_2e$).[6] "In 2010, California accounted for 6.8 percent of all emissions in the country [United States], and ranked second highest among the states with total emissions of 453 $MMTCO_2e$, only behind Texas with 763 $MMTCO_2e$. From a per capita standpoint, California has the 45th lowest emissions with 12.1 $MMTCO_2e$ /person in 2010."[7]

City of Moreno Valley

Year 2010 Baseline Community GHG emissions for the City of Moreno Valley are estimated at 920,712 MTCO2e/year, as summarized at Table 2-2.

TABLE 2-2: CITY OF MORENO VALLEY YEAR 2010 GHG BASELINE EMISSIONS INVENTORY

Sector	$MTCO_2e$/year	Percentof Total
Transportation	513,581	56%
Energy	277,230	30%
Area Sources	69,437	7%
Solid Waste	43,633	5%
Water and Wastewater	16,831	2%
Total	920,712	100%

[5] Used http://unfccc.int data for Annex I countries. Consulted the CAIT Climate Data Explorer http://www.wrig.org site to reference Non-Annex I countries such as China and India.

6 Cal EPA. "California Greenhouse Gas Emission Inventory - 2015 Edition." California's Greenhouse Gas Emission Inventory. Cal EPA, n.d. Web. 29 Oct. 2015.

7 California Environmental Protection Agency. Air Resources Board. California's Greenhouse Gas Emission Inventory - 2014 Edition (May 2014), p. 28.

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Source: City of Moreno Valley Greenhouse Gas Analysis Table 3-6 (2012)

Project Site Greenhouse Gas Emissions

The Project site is currently vacant and undeveloped and is not a source of GHG emissions.

2.3 GLOBAL CLIMATE CHANGE DEFINED

Global Climate Change refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO2 (Carbon Dioxide), N2O (Nitrous Oxide), CH4 (Methane), hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the Earth's atmosphere, but prevent radioactive heat from escaping, thus warming the Earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages. According to the California Air Resources Board (CARB), the climate change since the industrial revolution differs from previous climate changes in both rate and magnitude (10).

Gases that trap heat in the atmosphere are often referred to as greenhouse gases. Greenhouse gases are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural greenhouse gas effect, the Earth's average temperature would be approximately 61° Fahrenheit (F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

2.4 GREENHOUSE GASES

For the purposes of this analysis, emissions of carbon dioxide, methane, and nitrous oxide were evaluated (see Table 3-2 later in this report) because these gasses are the primary contributors to GCC from development projects. Although other substances such as fluorinated gases also contribute to GCC, sources of fluorinated gases are not well-defined and no accepted emissions factors or methodology exist to accurately calculate these gases.

Greenhouse gases have varying global warming potential values; Global Warming Potential (GWP) values represent the potential of a gas to trap heat in the atmosphere. Carbon dioxide is utilized as the reference gas for GWP, and thus has a GWP of 1.

The atmospheric lifetime and GWP of selected greenhouse gases are summarized at Table 2-3. As shown in the table below, GWP range from 1 for carbon dioxide to 23,900 for sulfur hexafluoride.

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TABLE 2-3: GLOBAL WARMING POTENTIAL AND ATMOSPHERIC LIFETIME OF SELECT GHGS

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	25
Nitrous Oxide	120	298
HFC-23	264	14,800
HFC-134a	14.6	1,430
HFC-152a	1.5	124
Sulfur Hexafluoride (SF6)	3,200	22,800
Source: Environmental Protection Agency (EPA) 2013 (URL: http://www.epa.gov/ghgreporting/documents/pdf/2013/documents/2013-data-elements.pdf)		

Water Vapor: Water vapor (H20) is the most abundant, important, and variable greenhouse gas in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change.

As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

There are no human health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and the water vapor can then act as a pollutant-carrying agent. The main source of water vapor is evaporation from the oceans (approximately 85 percent). Other sources include: evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.

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Carbon Dioxide: Carbon dioxide (CO2) is an odorless and colorless GHG. Outdoor levels of carbon dioxide are not high enough to result in negative health effects. Carbon dioxide is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. Carbon dioxide is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks (11).

Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Left unchecked, the concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources (12).

Methane: Methane (CH4) is an extremely effective absorber of radiation, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs. No health effects are known to occur from exposure to methane.

Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide: Nitrous oxide (N2O), also known as laughing gas, is a colorless greenhouse gas. Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage) (13).

Concentrations of nitrous oxide also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. Nitrous oxide can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction

Chlorofluorocarbons: Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C2H6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of

air at the Earth's surface). CFCs are no longer being used; therefore, it is not likely that health effects would be experienced. Nonetheless, in confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons: Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the greenhouse gases, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF3), HFC-134a (CF3CH2F), and HFC-152a (CH3CHF2). Prior to 1990, the only significant emissions were of HFC-23. HFC-134a emissions are increasing due to its use as a refrigerant. The U.S. EPA estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt (14). No health effects are known to result from exposure to HFCs, which are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons: Perfluorocarbons (PFCs) have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above Earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF4) and hexafluoroethane (C2F6). The U.S. EPA estimates that concentrations of CF4 in the atmosphere are over 70 ppt.

No health effects are known to result from exposure to PFCs. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur Hexafluoride: Sulfur hexafluoride (SF6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900). The U.S. EPA indicates that concentrations in the 1990s were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.

Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

2.5 EFFECTS OF CLIMATE CHANGE IN CALIFORNIA

The California Environmental Protection Agency (CalEPA) published a report titled "Scenarios of Climate Change in California: An Overview" (Climate Scenarios report) in February 2006

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(California Climate Change Center 2006), that while not adequate for a CEQA project-specific or cumulative analysis, is generally instructive about the statewide impacts of global warming.

The Climate Scenarios report uses a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0-5.5°F); medium warming range (5.5-8.0°F); and higher warming range (8.0-10.5°F). The Climate Scenarios report then presents an analysis of future climate in California under each warming range, that while uncertain, present a picture of the impacts of global climate change trends in California.

In addition, most recently on August 5, 2009, the State's Natural Resources Agency released a public review draft of its "California Climate Adaptation Strategy" report that details many vulnerabilities arising from climate change with respect to matters such as temperature extremes, sea level rise, wildfires, floods and droughts and precipitation changes. This report responds to the Governor's Executive Order S-13-2008 that called on state agencies to develop California's strategy to identify and prepare for expected climate impacts

According to the reports, substantial temperature increases arising from increased GHG emissions potentially could result in a variety of impacts to the people, economy, and environment of California associated with a projected increase in extreme conditions, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. Under the emissions scenarios of the Climate Scenarios report, the impacts of global warming in California have the potential to include, but are not limited to, the following areas:

Air Quality/General Thermal Effects

According to Cal EPA, higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35 percent under the lower warming range to 75 to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become difficult to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

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Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25 percent of the water supply they need. Although higher CO2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate O3 pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts.

In addition, continued global climate change could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued global climate change could alter the

abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90 percent due to decreased precipitation.

Moreover, continued global climate change has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80 percent by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of global climate change.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches.

2.6 HUMAN HEALTH EFFECTS

The potential health effects related directly to the emissions of carbon dioxide, methane, and nitrous oxide as they relate to development projects such as the proposed Project are still being debated in the scientific community. Their cumulative effects to global climate change have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (15). Exhibit 2-A presents the potential impacts of global warming.

Water Vapor: There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.

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Carbon Dioxide: According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of carbon dioxide can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of carbon dioxide in the earth's atmosphere are estimated to be approximately 370 parts per million (ppm), the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15 minute period (16).

Specific health effects associated with directly emitted GHG emissions are as follows:

Methane: Methane is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Methane is also an asphyxiant and may displace oxygen in an enclosed space (17).

Nitrous Oxide: Nitrous Oxide is often referred to as laughing gas; it is a colorless greenhouse gas. The health effects associated with exposure to elevated concentrations of nitrous oxide include dizziness, euphoria, slight hallucinations, and in extreme cases of elevated concentrations nitrous oxide can also cause brain damage (17).

Fluorinated Gases: High concentrations of fluorinated gases can also result in adverse health effects such as asphyxiation, dizziness, headache, cardiovascular disease, cardiac disorders, and in extreme cases, increased mortality (16).

Aerosols: The health effects of aerosols are similar to that of other fine particulate matter. Thus aerosols can cause elevated respiratory and cardiovascular diseases as well as increased mortality (18).

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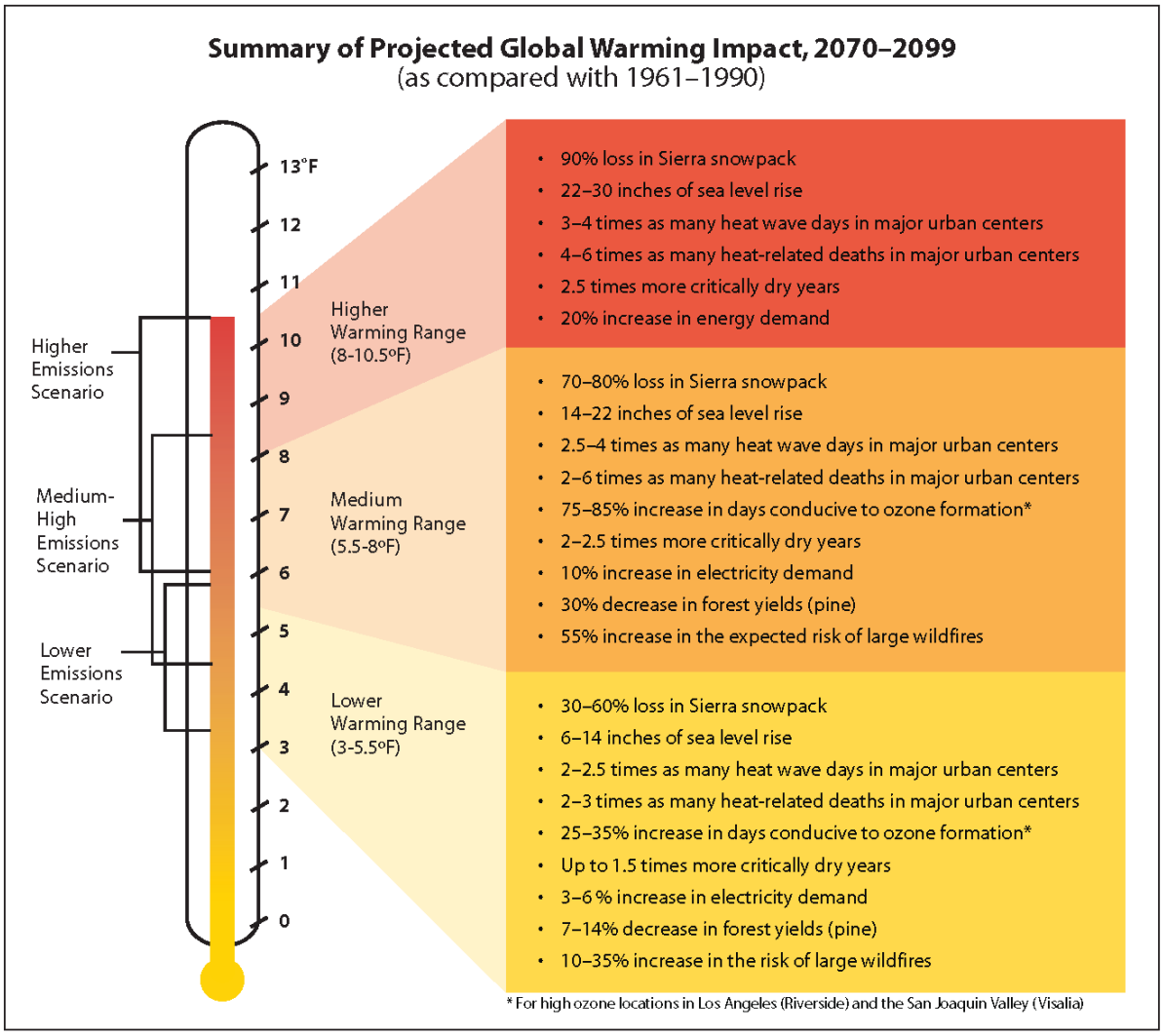
EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT



2.7 REGULATORY SETTING

<u>International Regulation and the Kyoto Protocol:</u>

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling greenhouse gas emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined

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in the Kyoto protocol are met, global GHG emissions could be reduced an estimated five percent from 1990 levels during the first commitment period of 2008-2012. Notably, while the United States is a signatory to the Kyoto protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments. In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Kyoto. There have been no international agreements on specific levels of GHG reductions within any particular time frames, or on specific methods of achieving reductions by developed and developing nations.

2015 United Nations Paris Climate Change Conference

On December 12, 2015, which marks the 11th meeting of the Parties to the Kyoto Protocol, 195 nations, including the United States and China, agreed upon a strategy for combatting global climate change to be in effect in 2020. This historic meeting, known as the 21st annual Conference of the Parties (COP21), focused on five key elements: mitigation, a transparency system and global stock-take, adaptation, loss and damage, and support.

In mitigating global climate change, COP 21 participating nations agreed upon a universal long-term goal of keeping the global temperature to well below 2°C or 3.6°F well above pre-industrial levels. The agreement also encouraged participating nations to limit temperature increases even further to 1.5°C or 2.7°F above pre-industrial levels. In addition to that, nations agreed to peak their GHG emissions as soon as possible, with the recognition that developing countries may take longer than developed countries. Thereafter, nations are to undergo rapid reductions in accordance to best available technological advances. The nations are to submit national climate action plans that detail future objectives to address climate change.

In supporting a transparency system and global stock-take, the participating nations agreed to meet every 5 years to set more ambitious targets on global climate change as technologically feasible. The nations are to report to each other and to the public on their progress towards implementing targets and goals through a transparency and accountability system.

In adaptation, participating nations are to strengthen the ability of nations to deal with climate impacts and provide continued international support for adaptation to developing countries.

In supporting loss and damage, participating nations understand the importance of minimizing and addressing the loss and damage associated with adverse effects of global climate change. These nations acknowledge the need to corporate with each other and support each other through safeguards, such as early warning systems, emergency preparedness, and risk insurance.

Participating nations are to support each other in their efforts to fight against global climate change. Developed countries within the COP21 are to continue their existing collective goal of utilizing 100 billion per year in support of the poorest and most vulnerable participating nations, known as climate finance, until 2025, when a new collective goal will be set. (19) (20)

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Federal Regulation and the Clean Air Act:

Coinciding 2009 meeting in Copenhagen, on December 7, 2009, the U.S. Environmental Protection Agency issued an Endangerment Finding under Section 202(a) of the Clean Air Act, opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the Clean Air Act.

The Act requires that when new industrial facilities are designed and built, good pollution control must be part of the design. This means that as new, cleaner facilities are built, the country's industrial base becomes cleaner overall. Public health is protected as economic growth proceeds. In areas not meeting air quality standards, to avoid making pollution worse, new and modified large plants and factories must meet the lowest achievable emission rate and obtain offsetting emissions reductions from other sources. In areas that meet air quality standards, new and modified large plants and factories must apply the best available technology considering cost and avoid causing significant degradation of air quality or visibility impairment in national parks. For example, new coal-fired power plants typically install control devices that capture up to 98 percent of the sulfur dioxide and in many cases 90 percent of the nitrogen oxide emissions, relative to uncontrolled levels.

These requirements are applied through pre-construction permitting programs that are administered by state, local, tribal, or EPA permitting authorities, depending on the location. State and local permitting authorities usually administer the pre-construction permit programs that determine how to apply these requirements to facilities.

To date, the EPA has not promulgated regulations on GHG emissions, but it has already begun to develop them. Previously the EPA had not regulated GHGs under the Clean Air Act (21) because it asserted that the Act did not authorize it to issue mandatory regulations to address global climate change and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In Massachusetts v. Environmental Protection Agency et al. (127 S. Ct. 1438 (2007), however, the U.S. Supreme Court held that GHGs are pollutants under the Clean Air Act and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

Title 24 Energy Standards:

Although global climate change did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the unintended reduction of greenhouse gas emissions. In order to manage the state's energy needs and promote energy efficiency, AB 1575 created the California Energy Commission (CEC) in 1975.

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The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (22) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The Energy Commission's most recent standard, 2013 Building Energy Efficiency Standard, is 25 percent more efficient than previous standards for residential construction and 30 percent better for nonresidential construction. The Standards, which took effect on January 1, 2014, offer builders better windows, insulation, lighting, ventilation systems and other features that reduce energy consumption in homes and businesses. Some improved measures in the Standards include:

Residential:

- Solar-ready roofs to allow homeowners to add solar photovoltaic panels at a future date
- More efficient windows to allow increased sunlight, while decreasing heat gain
- Insulated hot water pipes, to save water and energy and reduce the time it takes to deliver hot water
- Whole house fans to cool homes and attics with evening air reducing the need for air conditioning load
- Air conditioner installation verification to insure efficient operation

Nonresidential:

- High performance windows, sensors and controls that allow buildings to use "daylighting"
- Efficient process equipment in supermarkets, computer data centers, commercial kitchens, laboratories, and parking garages
- Advanced lighting controls to synchronize light levels with daylight and building occupancy, and provide demand response capability
- Solar-ready roofs to allow businesses to add solar photovoltaic panels at a future date
- Cool roof technologies

CALGreen

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code) (23). The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality.” The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). The CBSC has released the 2010 California Green Building Standards Code on its Web site. Unless

otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code.

CALGreen contains both mandatory and voluntary measures, for Non-Residential land uses there are 39 mandatory measures including, but not limited to: exterior light pollution reduction, wastewater reduction by 20%, and commissioning of projects over 10,000 sf. There are two tiers of voluntary measures for Non-Residential land uses for a total of 36 additional elective measures.

The 2013 CALGreen includes additions and amendments to the water efficiency standards for non residential buildings in order to comply with the reduced flow rate table. The 2013 CALGreen has also been rewritten to clarify and definitively identify the requirements and applicability for residential and nonresidential buildings.

Vehicle Standards for Fuel Economy and Reducing Carbon Content

Other regulations have been adopted to address vehicle standards including United States Environmental Protection Agency (USEPA) and National Highway Traffic Safety Administration (NHTSA) joint rulemaking for vehicle standards:

- On March 30, 2009, the NHTSA issued a final rule for model year 2011 (24).
- On May 7, 2010, the USEPA and NHTSA issued a Supplemental Notice of Intent announcing plans to propose stringent, coordinated federal greenhouse gas and fuel economy standards for model year 2017-2025 light-duty vehicles (25)
- On August 9, 2011 USEPA and NHTSA issued a Supplemental Notice of Intent announcing plans to propose stringent, coordinated federal greenhouse has and fuel economy standards for model year 2017-2025 light-duty vehicles (26)
- The NHSTA intends to set standards for model years 2022-2025 in a future rulemaking (27)
- In addition to the regulations applicable to cars and light-duty trucks, on August 9, 2011, the USEPA and the NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks, which applies to vehicles from model year 2014–2018 (28)

Energy Independence and Security Act

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law (29). Among other key measures, the Act would do the following, which would aid in the reduction of national GHG emissions, both mobile and non-mobile.

Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) Guidelines on GHG

On February 18, 2010, the White House Council on Environmental Quality published draft guidance on the consideration of greenhouse gases and climate change for NEPA analyses (30). It recommends that proposed federal actions that are reasonably expected to directly emit 25,000 metric tons of CO2e/year should prepare a quantitative and qualitative NEPA analysis of direct and indirect greenhouse gas emissions.

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The draft guidance provides reporting tools and instructions on how to assess the effects of climate change. The draft guidance does not apply to land and resource management actions, nor does it propose to regulate greenhouse gases. Although CEQ has not yet issued final guidance, various NEPA documents are beginning to incorporate the approach recommended in the draft guidance (31)

Other Applicable Regulations and Policies

In addition to the federal regulations and programs described above, there are still more policies and programs to address climate change. A database compiled by the International Energy Agency lists more than 300 policies and measures addressing climate change in the United States (32).

The Western Regional Climate Action Initiative (WCI)

The Western Regional Climate Action Initiative (WCI) is a partnership among seven states, including California, and four Canadian provinces to implement a regional, economy-wide cap-and-trade system to reduce global warming pollution. The WCI will cap GHG emissions from the region's electricity, industrial, and transportation sectors with the goal to reduce the heat trapping emissions that cause global warming to 15% below 2005 levels by 2020. When the WCI adopted this goal in 2007, it estimated that this would require 2007 levels to be reduced worldwide between 50% and 85% by 2050. California is working closely with the other states and provinces to design a regional GHG reduction program that includes a cap-and-trade approach. Air Resource Board's (ARB) planned cap and-trade program, discussed below, is also intended to link California and the other member states and provinces.

California Assembly Bill No. 1493 (AB 1493):

AB 1493 requires CARB to develop and adopt the nation's first greenhouse gas emission standards for automobiles. The Legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in California (33). Further, the legislature stated that technological solutions to reduce greenhouse gas emissions would stimulate the California economy and provide jobs.

To meet the requirements of AB 1493, ARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13 1961) and adoption of Section 1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016.

In December 2004 a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against ARB to prevent enforcement of CCR 13 1900 and CCR 13 1961 as amended by AB 1493 and CCR 13 1961.1 (Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in her official capacity as Executive Director of the

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California Air Resources Board, et al.). The suit, heard in the U.S. District Court for the Eastern District of California, contended that California's implementation of regulations that in effect regulate vehicle fuel economy violates various federal laws, regulations, and policies. In January 2007, the judge hearing the case accepted a request from the State Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court Case, Massachusetts vs. EPA, the primary issue in question is whether the Federal Clean Air Act (CAA) provides authority for USEPA to regulate CO2 emissions. In April 2007, the U.S. Supreme Court ruled in Massachusetts' favor, holding that GHGs are air pollutants under the CAA. On December 11, 2007, the judge in the Central Valley Chrysler-Jeep case rejected each plaintiff's arguments and ruled in California's favor. On December 19, 2007, the USEPA denied California's waiver request. California filed a petition with the Ninth Circuit Court of Appeals challenging USEPA's denial on January 2, 2008.

The Obama administration subsequently directed the USEPA to re-examine their decision. On May 19, 2009, challenging parties, automakers, the State of California, and the federal government reached an agreement on a series of actions that would resolve these current and potential future disputes over the standards through model year 2016. In summary, the USEPA and the U.S. Department of Transportation agreed to adopt a federal program to reduce GHGs and improve fuel economy, respectively, from passenger vehicles in order to achieve equivalent or greater greenhouse gas benefits as the AB 1493 regulations for the 2012–2016 model years. Manufacturers agreed to ultimately drop current and forego similar future legal challenges, including challenging a waiver grant, which occurred on June 30, 2009. The State of California committed to (1) revise its standards to allow manufacturers to demonstrate compliance with the fleet-average GHG emission standard by "pooling" California and specified State vehicle sales; (2) revise its standards for 2012–2016 model year vehicles so that compliance with USEPA-adopted GHG standards would also comply with California's standards; and (3) revise its standards, as necessary, to allow manufacturers to use emissions data from the federal CAFE program to demonstrate compliance with the AB 1493 regulations (34). Both of these programs are aimed at light-duty auto and light-duty trucks.

Executive Order S-3-05:

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change (35). It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 1990 level by 2020, and to 80% below the 1990 level by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary also is required to submit biannual reports to the Governor and state Legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Action Team (CAT) made up of members from various state agencies and commission. CAT released its first

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report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

California Assembly Bill 32 (AB 32):

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020 (36). This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

In November 2007, CARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 MMTs (emission sources by sector were: transportation – 35 percent; electricity generation – 26 percent; industrial – 24 percent; residential – 7 percent; agriculture – 5 percent; and commercial – 3 percent). Accordingly, 427 MMTs of CO2 equivalent was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG emissions was 473 MMT for 2000 and 532 MMT for 2010. "Business as usual" conditions (without the 28.4 percent reduction to be implemented by CARB regulations) for 2020 were projected to be 596 MMTs.

In December 2007, CARB approved a regulation for mandatory reporting and verification of GHG emissions for major sources. This regulation covered major stationary sources such as cement plants, oil refineries, electric generating facilities/providers, and co-generation facilities, which comprise 94 percent of the point source CO2 emissions in the State.

On December 11, 2008, CARB adopted a scoping plan to reduce GHG emissions to 1990 levels. The Scoping Plan's recommendations for reducing GHG emissions to 1990 levels by 2020 include emission reduction measures, including a cap-and-trade program linked to Western Climate Initiative partner jurisdictions, green building strategies, recycling and waste-related measures, as well as Voluntary Early Actions and Reductions. Implementation of individual measures must begin no later than January 1, 2012, so that the emissions reduction target can be fully achieved by 2020.

Table 2-4 shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the 2020

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emissions reduction, local land use changes are estimated to result in a reduction of 5 MMTons of CO2e, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target (see Climate Change Scoping Plan, Page 27) (37). According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 MMTons of CO2e (or approximately 1.2 percent of the GHG reduction target).

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TABLE 2-4: SCOPING PLAN GHG REDUCTION MEASURES TOWARDS 2020 TARGET

Recommended Reduction Measures	*Reductions Counted toward 2020 Target of 169 MMT CO2e*	*Percentage of Statewide 2020 Target*
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined[2]	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMTons CO2e: million metric tons of CO2e

[1]Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.

[2]According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO2e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

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Overall, CARB determined that achieving the 1990 emission level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent in the absence of new laws and regulations (referred to as "Business-As-Usual" [BAU]). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and California Climate Action Team early actions and additional GHG reduction measures, identifies additional measures to be pursued as regulations, and outlines the role of the cap-and-trade program.

In connection with its preparation of the August 2011 Final Supplement to the Scoping Plan's Functional Equivalent Document, CARB released revised estimates of the 2020 emissions level projection in light of the economic recession and the availability of updated information from development of measure-specific regulations. Based on the new economic data, CARB determined the 2020 emissions level projection in the BAU condition would be reduced from 596 metric tons of CO2 equivalent (MTCO2e) to 545 MTCO2e. (38) Under this scenario, achieving the 1990 emissions level in 2020 would require a reduction of GHG emissions of 118 MTCO2e, or 21.7 percent (down from 28.5 percent), from the BAU condition.

When the 2020 emissions level projection also was updated to account for implemented regulatory measures, including Pavley (vehicle model-years 2009 - 2016) and the renewable portfolio standard (12% - 20%), the 2020 projection in the BAU condition was reduced further to 507 MTCO2e. As a result, based on the updated economic and regulatory data, CARB determined that achieving the 1990 emissions level in 2020 would now only require a reduction of GHG emissions of 80 MTCO2e, or approximately 16 percent (down from 28.5 percent), from the BAU condition. (38) (39)

On February 10, 2014, CARB released a Draft Proposed First Update of the Scoping Plan. The draft recalculates 1990 GHG emissions using new global warming potentials identified in the IPCC Fourth Assessment Report released in 2007. Using those GWPs, the 427 MTCO2e 1990 emissions level and 2020 GHG emissions limit identified in the 2008 Scoping Plan would be slightly higher, at 431 MTCO2e. (40) Based on the revised 2020 emissions level projection identified in the 2011 Final Supplement and the updated 1990 emissions levels identified in the discussion draft of the First Update, achieving the 1990 emissions level in 2020 would require a reduction of 78 MTCO2e (down from 509 MTCO2e), or approximately 15.3 percent (down from 28.5 percent), from the BAU condition. (38) (39) (40)

<u>California Senate Bill No. 1368 (SB 1368):</u>

In 2006, the State Legislature adopted Senate Bill 1368 ("SB 1368"), which was subsequently signed into law by the Governor (41). SB 1368 directs the California Public Utilities Commission ("CPUC") to adopt a greenhouse gas emission performance standard ("EPS") for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Due to the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants.

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Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out of state producers that cannot satisfy the EPS standard required by SB 1368.

Senate Bill 97 (SB 97):

Pursuant to the direction of SB 97, OPR released preliminary draft CEQA Guideline amendments for greenhouse gas emissions on January 8, 2009, and submitted its final proposed guidelines to the Secretary for Natural Resources on April 13, 2009 (42). The Natural Resources Agency adopted the Guideline amendments and they became effective on March 18, 2010.

Of note, the new guidelines state that a lead agency shall have discretion to determine whether to use a quantitative model or methodology, or in the alternative, rely on a qualitative analysis or performance based standards. CEQA Guideline § 15064.4(a)"A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use . . .; or (2) Rely on a qualitative analysis or performance based standards."

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a project's incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emission are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support determination that a project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

CEQA emphasizes that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis. (See CEQA Guidelines Section 15130(f)).

Section 15064.4(b) of the CEQA Guidelines provides direction for lead agencies for assessing the significance of impacts of greenhouse gas emissions:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or

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3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The CEQA Guideline amendments do not identify a threshold of significance for greenhouse gas emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. Specific GHG language incorporated in the Guidelines' suggested Environmental Checklist (Guidelines Appendix G) is as follows:

VII. GREENHOUSE GAS EMISSIONS

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Executive Order S-01-07:

On January 18, 2007 California Governor Arnold Schwarzenegger, through Executive Order S-01-07, mandated a statewide goal to reduce the carbon intensity of California's transportation fuel by at least ten percent by 2020 (43). The order also requires that a California specific Low Carbon Fuel Standard be established for transportation fuels.

Executive Order B-30-15

In January 2015, Governor Brown, in his inaugural address and annual report to the Legislature, established supplementary goals which would further reduce GHG emissions over the next 15 years. These goals include an increase in California's renewable energy portfolio from 33% to 50%, a reduction in vehicle petroleum use for cars and trucks by up to 50% measures to double the efficiency of existing buildings, and decreasing emissions associated with heating fuels.

On April 29, 2015 California Governor Jerry Brown, through Executive Order B-30-15 ("BEO") states a new statewide policy goal to reduce GHG emissions 40 percent below their 1990 levels by 2030.

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The BEO sets an ambitious new Statewide GHG emissions reduction target of 40% below 1990 levels by 2030 as a "mid-term" benchmark needed to achieve the 80% below 1990 levels by 2050. It should be noted however that this target has not been formally enacted by the Legislature or even CARB. As such, the BEO does not appear to constitute a new regulation or requirement adopted to implement a statewide, regional or local plan for the reduction of GHG emissions within the context of CEQA.

The Project reduces its GHG emissions to the maximum extent feasible as discussed in this document. At this time, no further analysis is necessary or required by CEQA as it pertains to Executive Order B-30-15.

Additionally, as described previously, the project applicant would not actively interfere with any future City-mandated, state-mandated, or federally-mandated retrofit obligations enacted or promulgated to legally require development City-wide, state-wide, or nation-wide to assist in meeting state-adopted greenhouse gas emissions reduction targets, including that established under Executive Order S-3-05 or Executive Order B-30-15.

Based on the foregoing, the Project does not interfere with the state's implementation of (i) Executive Order B-30-15's target of reducing statewide GHG emissions to 40% below 1990 levels by 2030 or (ii) Executive Order S-3-05's target of reducing statewide GHG emissions to 80% below 1990 levels by 2050 because it does not interfere with the state's implementation of GHG reduction plans described in the CARB's Updated Scoping Plan, including the state providing for 12,000 MW of renewable distributed generation by 2020, the California Building Commission mandating net zero energy homes in the building code after 2020, or existing building retrofits under AB 758. Therefore, the project's impacts on greenhouse gas emissions in the 2030 and 2050 horizon years are less than significant.

Senate Bills 1078 and 107 and Executive Order S-14-08:

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20% of their supply from renewable sources by 2017 (44). SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010 (43). In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33% renewable power by 2020 (45).

Senate Bill 375:

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPO's regional transportation plan. ARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035.

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These reduction targets will be updated every 8 years but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. ARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects will not be eligible for funding programmed after January 1, 2012.

This law also extends the minimum time period for the regional housing needs allocation cycle from 5 years to 8 years for local governments located within an MPO that meets certain requirements. City or county land use policies (including general plans) are not required to be consistent with the regional transportation plan (and associated SCS or APS). However, new provisions of CEQA would incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or APS, categorized as "transit priority projects."

The Southern California Association of Governments (SCAG) is required by law to update the Southern California Regional Transportation Plan (RTP) every four years. The 2012 draft plan has been released; this draft plan differs from past plans because it includes development of a SCS. The RTP/SCS incorporates land use and housing policies to meet the greenhouse gas emissions targets established by the California Air Resource Board for 2020 (8% reduction) and 2035 (13% reduction). On April 4, 2012, the Regional Council of SCAG adopted the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future.

CARB's Preliminary Draft Staff Proposal for Interim Significance Thresholds:

Separate from its Scoping Plan approved in December of 2008 (46), CARB issued a Staff Proposal in October 2008, as its first step toward developing recommended statewide interim thresholds of significance for GHGs that may be adopted by local agencies for their own use. CARB staff's objective in this proposal is to develop a threshold of significance that will result in the vast majority (approximately 90 percent statewide) of GHG emissions from new industrial projects being subject to CEQA's requirement to impose feasible mitigation. The proposal does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that, collectively, are responsible for substantial GHG emissions – specifically, industrial, residential, and commercial projects. CARB is developing these thresholds in these sectors to advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state. These draft thresholds are under revision in response to comments. There is currently no timetable for finalized thresholds at this time.

As currently proposed by CARB, a quantitative threshold of 7,000 metric tons (MT) of CO2e per year for operational emissions (excluding transportation), and performance standards yet to be defined for construction and transportation emissions are under consideration. However, CARB's proposal is not yet final, and thus cannot be applied to the Project.

South Coast Air Quality Management District Recommendations for Significance Thresholds:

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In April 2008, the South Coast Air Quality Management District (SCAQMD), in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group." The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until CARB (or some other state agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects—residential; non-residential; industrial; etc. (47). However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects where it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of carbon dioxide equivalent (MTCO2e) as a screening numerical threshold for stationary sources. More importantly it should be noted that when setting the 10,000 MTCO2e threshold, the SCAQMD did not consider mobile sources (vehicular travel), rather the threshold is based mainly on stationary source generators such as boilers, refineries, power plants, etc. Therefore it would be misleading to apply a threshold that was developed without consideration for mobile sources to a project where the majority of emissions are related to mobile sources. Thus there is no SCAQMD threshold that can be applied to this Project.

In September 2010 (48), the Working Group released additional revisions that consist of the following recommended tiered approach:

- Tier 1 consists of evaluating whether or not the Project qualifies for applicable CEQA exemptions.
- Tier 2 consists of determining whether or not a Project is consistent with a greenhouse gas reduction plan. If a Project is consistent with a greenhouse gas reduction plan, it would not have a significant impact.
- Tier 3 consists of screening values at the discretion of the lead agency; however they should be consistent for all projects within its jurisdiction. Project-related construction emissions should be amortized over 30 years and should be added back the Project's operational emissions. The following thresholds are proposed for consideration:
    - 3,000 MTCO2e per year for all land use types

      or
    - 3,500 MTCO2e per year for residential; 1,400 MTCO2e per year for commercial; or 3,000 MTCO2e per year for mixed-use projects
- Tier 4 has the following options:
    - Option 1: Reduce emissions from business as usual by a certain percentage (currently undefined)
    - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
    - Option 3: A project-level efficiency target of 4.8 MTCO2e per service population as a 2020 target and 3.0 MTCO2e per service population as a 2035 target. The recommended

plan-level target for 2020 is 6.6 MTCO2e and the plan level target for 2035 is 4.1 MTCO2e

- Tier 5 involves mitigation offsets to achieve target significance thresholds

The SCAQMD has also adopted Rules 2700, 2701, and 2702 that address GHG reductions. However, these rules address boilers and process heaters, forestry, and manure management projects, none of which are proposed by the Project.

2.8 SCAG Regional Transportation Plan/Sustainable Communities Strategy

The 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the SCAG region was prepared to ensure that the Southern California region attains the per capita vehicle miles targets for passenger vehicles identified by CARB, as required by Senate Bill 375 (49). The Project would be consistent with the plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The Project's consistency with the proposed RTP strategies would therefore not conflict with GHG reduction goals set forth in the SAG 2012 RTP/SCS.

2.9 City of Moreno Valley General Plan Measures

Although the City of Moreno Valley General Plan does not identify specific GHG or climate change policies or goal, a number of the measures identified in the General Plan's Air Quality Element act to reduce or control criteria pollutant emissions and peripherally reduce GHG emissions. The proposed Project has been evaluated for consistency with the City's General Plan Air Quality Element, as shown on Table 2-4.

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TABLE 2-4: CITY OF MORENO VALLEY GENERAL PLAN CONSISTENCY

Objective 6.6: Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.	**Consistent.** *The Project site is providing employment opportunities to Moreno Valley and the surrounding area.*
Objective 6.7: Reduce mobile and stationary source air pollutant emissions.	**Consistent.** *The Project site is located proximate to existing and proposed major roadways, acting to generally reduce vehicle trip lengths, thereby reducing mobile source emissions. The Project will further reduce mobile source emissions by creating local employment opportunities, reducing commuter vehicle miles traveled (VMT) within the region. Additionally, the Project will implement energy efficient designs and operational programs meeting or surpassing California Code of Regulations (CCR) Title 24 Building Standards, including but not limited to compliance with or betterment of, energy conservation requirements identified at CCR Title 24, Part 6, and Energy Code. Energy efficient designs and programs implemented by the Project reduce resources consumption with correlating reductions in stationary-source emissions.*
Policy 6.7.5: Require grading activities to comply with South Coast Air Quality Management District's Rule 403 regarding the control of fugitive dust.	**Consistent.** *The Project will be required to implement fugitive dust control measures consistent with SCAQMD Rule 403.*
Policy 6.7.6: Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code [California Code of Regulations].	**Consistent.** *Pursuant to City and State Building Code requirements, the Project will meet or surpass applicable CCR Title 24 energy conservation requirements.*

Source: City of Moreno Valley General Plan, Safety Element

2.10 CITY OF MORENO VALLEY ENERGY EFFICIENCY AND CLIMATE ACTION STRATEGY

The City of Moreno Valley released an Energy Efficiency and Climate Action Strategy (CAS) as well as a Greenhouse Gas Analysis for public review on May 8, 2012. The documents were approved on October 9, 2012. The CAS identifies ways that the City can reduce energy and water consumption and greenhouse gas emissions as an organization (its employees and the operation of its facilities) and outlines the actions that the City can encourage and community members can employ to reduce their own energy and water consumption and greenhouse gas emissions. The policies in the document are to reduce greenhouse gas emissions in 2010 by 15 percent by 2020. The following consists of an analysis of Project consistency with the policies in the CAS.

- R2-T1: Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.

  Project consistency: Not applicable.

- R2-T3: Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.

  Project consistency: Consistent. Trip reductions are part of the Project's design features.

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- R2-E1: New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards. (Reach Code)

  Project consistency: Not applicable; this measure applies to residential projects.

- R2-E2: New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (photovoltaic) panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources offsite.

  Project consistency: Not applicable; this measure applies to residential projects.

- R2-E5: New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10% beyond the 2008 Title 24 standards (which were in effect at the time the CAP was adopted). (Reach Code)

  Project consistency: Consistent; Current 2013 Title 24 requirements would achieve greater reduction than envisioned by the City's Climate Action Strategy. Further, the Project would be required to comply with any adopted municipal code requirements set forth by the City of Moreno Valley. As such the Project would be consistent with R2-E5.

- R3-E1: Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy efficient projects.

- Project consistency: Not applicable on a project-level.

- R3-L2: Heat Island Plan. Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.

  Project consistency: Consistent; the Project will comply with the City of Moreno Valley's landscaping requirements.

- R2-W1: Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal, which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.

  Project consistency: Consistent. California Green Building Standards Code, Chapter 5, Division 5.3, Section 5.303.2 requires that indoor water use be reduced by 20 percent. Section 5.304.3 requires irrigation controllers and sensors. Water conservation is part of the Project's design features.

- R3-W1: Water Efficiency Training and Education. Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.

  Project consistency: Not applicable at a project-level.

- R2-S1: City Diversion Program. For Solid Waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.

  Project consistency: Consistent; the Project will comply with the City of Moreno Valley's citywide goal of solid waste reduction. Additionally the Project will be compliant with the City of Moreno Valley's Municipal Code 8.80.030 by implementing a Waste Management Plan.

As shown above and in Appendix 3.2, Project Consistency with Moreno Valley Energy Efficiency and Climate Action Strategy, of this report, many of the measures are not applicable to the Project.

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2.11 CONSISTENCY WITH CARB SCOPING PLAN

Table 3-5 below, presents the 39 Recommended Actions (qualitative measures) identified to date by CARB in its Climate Change Proposed Scoping Plan. Of the 39 measures identified, those that would be considered to be applicable to the Project would primarily be those actions related to transportation, electricity and natural gas use, green building design and industrial uses. Consistency of the Project with these measures is evaluated by each source-type measure below. Table 3-5 identifies which CARB Recommended Actions apply to the Project, and of those, whether the Project is consistent therewith. A discussion of how the Project is consistent with each applicable CARB Recommended Action is set forth after Table 3-5.

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TABLE 2-5: RECOMMENDED ACTIONS FOR CLIMATE CHANGED PROPOSED SCOPING PLAN

ID #	Sector	Strategy Name	Applicable to Project?	Will Project Conflict With Implementation?
T-1	Transportation	Pavley I and II – Light-Duty Vehicle GHG Standards	NO	NO
T-2	Transportation	Low Carbon Fuel Standard (Discrete Early Action)	NO	NO
T-3	Transportation	Regional Transportation-Related GHG Targets	NO	NO
T-4	Transportation	Vehicle Efficiency Measures	NO	NO
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)	NO	NO
T-6	Transportation	Goods-movement Efficiency Measures	NO	NO
T-7	Transportation	Heavy Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	NO	NO
T-8	Transportation	Medium and Heavy-Duty Vehicle Hybridization	NO	NO
T-9	Transportation	High Speed Rail	NO	NO
E-1	Electricity and Natural Gas	Increased Utility Energy efficiency programs More stringent Building and Appliance Standards	YES	NO
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000GWh	NO	NO
E-3	Electricity and Natural Gas	Renewable Portfolio Standard	NO	NO
E-4	Electricity and Natural Gas	Million Solar Roofs	YES	NO
CR-1	Electricity and Natural Gas	Energy Efficiency	YES	NO
CR-2	Electricity and Natural Gas	Solar Water Heating	NO	NO
GB-1	Green Buildings	Green Buildings	YES	NO
W-1	Water	Water Use Efficiency	YES	NO
W-2	Water	Water Recycling	NO	NO
W-3	Water	Water System Energy Efficiency	YES	NO
W-4	Water	Reuse Urban Runoff	NO	NO
W-5	Water	Increase Renewable Energy Production	NO	NO
W-6	Water	Public Goods Charge (Water)	NO	NO
I-1	Industry	Energy Efficiency and Co-benefits Audits for Large Industrial Sources	YES	NO
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction	NO	NO
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission	NO	NO
I-4	Industry	Refinery Flare Recovery Process Improvements	NO	NO
I-5	Industry	Removal of Methane Exemption from Existing Refinery Regulations	NO	NO
RW-1	Recycling and Waste Management	Landfill Methane Control (Discrete Early Action)	NO	NO
RW-2	Recycling and Waste Management	Additional Reductions in Landfill Methane – Capture Improvements	NO	NO
RW-3	Recycling and Waste Management	High Recycling/Zero Waste	NO	NO
F-1	Forestry	Sustainable Forest Target	NO	NO
H-1	High Global Warming Potential Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)	NO	NO
H-2	High Global Warming Potential Gases	SF_6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	NO	NO
H-3	High Global Warming Potential Gases	Reduction in Perfluorocarbons in Semiconductor Manufacturing (Discrete Early Action)	NO	NO
H-4	High Global Warming Potential Gases	Limit High GWP Use in Consumer Products (Discrete Early Action, Adopted June 2008)	NO	NO
H-5	High Global Warming Potential Gases	High GWP Reductions from Mobile Sources	NO	NO
H-6	High Global Warming Potential Gases	High GWP Reductions from Stationary Sources	NO	NO
H-7	High Global Warming Potential Gases	Mitigation Fee on High GWP Gases	NO	NO
A-1	Agriculture	Methane Capture at Large Dairies	NO	NO

SOURCE: CARB, 2008.

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Discussion of the applicability of each measure and Project consistency with or support of its implementation follows. It also noted that certain measures and enforcement actions listed below are beyond the scope of control of the Project. Notwithstanding implementation and enforcement of these measures by the State or other responsible entity will act to reduce areawide GHG emissions.

Transportation

CARB's Scoping Plan identifies nine transportation-related recommended actions. Action T-1 concerns improvements to light-duty vehicle technology for the purposes of reducing GHG emissions. This action focuses on legislating improved controls for vehicle manufacturers and would not generally be considered applicable to the proposed Project. Implementation of the Pavley standards is dependent on implementation by the State on vehicle fuel economy standards.

Implementation of such a standard is not within the purview of this Project. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

Action T-2 concerns implementation of a low carbon fuel standard. To reduce the carbon intensity of transportation fuels, CARB is developing a Low Carbon Fuel Standard (LCFS), which would reduce the carbon intensity of California's transportation fuels by at least ten percent by 2020 as called for by Governor Schwarzenegger in Executive Order S-01-07. LCFS will incorporate compliance mechanisms that provide flexibility to fuel providers in how they meet the requirements to reduce greenhouse gas emissions.

Implementation of such a standard is not within the purview of this Project. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

Action T-3 addressees regional transportation targets for reducing GHG emissions. SB 375 requires CARB to develop, in consultation with metropolitan planning organizations (MPOs), passenger vehicle greenhouse gas emissions reduction targets for 2020 and 2035. It sets forth a collaborative process to establish these targets, including the appointment by CARB of a Regional Targets Advisory Committee to recommend factors to be considered and methodologies for setting greenhouse gas emissions reduction targets. SB 375 also provides incentives – relief from certain California Environmental Quality Act (CEQA) requirements for development projects that are consistent with regional plans that achieve the targets.

Implementation of such a standard is not within the purview of this Project. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

Action T-4 is concerned with vehicle efficiency measures. The California Integrated Waste Management Board (CIWMB) with various partners continues to conduct a public awareness campaign to promote sustainable tire practices. CARB is pursuing a regulation to ensure that tires are properly inflated when vehicles are serviced. In addition, CEC in consultation with

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CIWMB is developing an efficient tire program focusing first on data gathering and outreach, then on potential adoption of minimum fuel-efficient tire standards, and lastly on the development of consumer information requirements for replacing tires. CARB is also pursuing ways to reduce engine load via lower friction oil and reducing the need for air conditioner use. ARB is actively engaged in the regulatory development process for the tire inflation component of this measure.

Implementation of such a standard is not within the purview of this Project. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

Action T-5 addresses electrification of ships at ports and is not applicable to the proposed Project.

Action T-6 also primarily addresses port operations and is not applicable to the proposed Project.

Action T-7 requires existing trucks/trailers to be retrofitted with the best available technology and/or CARB-approved technology.

Implementation of such a standard is not within the purview of the proposed Project since various trucks fleets from numerous commercial entities may access the site. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

Action T-8 focuses on hybridization of medium- and heavy-duty vehicles. The implementation approach to Action T-8 is to adopt a regulation and/or incentive program that reduces GHG emissions by encouraging hybrid technology as applied to vocational applications that have significant urban, stop-and-go driving, idling, and power take-off operations in their duty cycle. Such applications include parcel delivery trucks and vans.

Implementation of such a standard is not within the purview of the proposed Project since various trucks fleets from numerous commercial entities may access the site. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

Action T-9 concerns implementation of a high speed rail system. This measure is not applicable to the Project.

<u>Electricity and Natural Gas</u>

Action E-1/CR-1, together with Action GB-1 (Green Building), aims to reduce electricity demand by increased efficiency of Utility Energy Programs and adoption of more stringent building and appliance standards.

The Project will comply with or surpass incumbent Title 24 Energy Efficiency Standards. Therefore, the proposed Project would not conflict with this measure.

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Action E-2 encourages an increase in the use of combined heat and power (CHP) use, or co-generation, facilities. California has supported CHP for many years, but market and other barriers continue to keep CHP from reaching its full market potential. Increasing the deployment of efficient CHP will require a multi-pronged approach that includes addressing significant barriers and instituting incentives or mandates where appropriate.

Implementation of such a standard is not within the purview of the proposed Project. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

Action E-3 concerns Renewable Portfolio Standards for utilities and does not apply to development projects.

Action E-4 strives to promote solar generated electricity.

Project building designs will accommodate renewable energy sources, such as photovoltaic solar electricity systems, appropriate to their architectural design(s). The Project would therefore not conflict with the recommended measure.

Action CR-2 strives to promote solar water heaters (SWH). The ARB recommends that California pursue approaches with the goal of developing a viable SWH industry for 2020 and beyond.

Implementation of such a standard is not within the purview of the Project. However, the Project will be required to comply with the requirements of the measures as they are adopted by the responsible entity.

Water Use

Implementation of all but two of the Recommended Actions related to water use are not within the purview of the proposed Project. The two measures that apply are measures W-1 (Water Use Efficiency) and W-3 (Water System Energy Efficiency). However, since the proposed Project would not exceed the audit threshold of 25,000 MT CO_2 (50) from on-site combustion and related activities, the proposed Project is consistent with and would not obstruct the recommended actions.

Industrial Use

All but one of the Recommended Actions related to industrial use are specific to oil and gas extraction, refining and transmission and are not applicable to the proposed Project. The one other Action I-1 targets large emitters of GHGs (in excess of 0.5 million metric tons (MMT)/year of CO_2E (equivalent)) for auditing[8] (51). Because the proposed Project would not exceed the audit threshold, as set forth in Section 3.0, the proposed Project is consistent with and would not obstruct the recommended actions.

[8] Certain "covered sectors" of activities in California account for 85% of GHG emissions. Each source in these sectors will be subject to a system of declining GHG emissions allowances issued by CARB under a total emissions cap, as well as an allowance trading system. The Plan's lynch-pin is a cap-and-trade program that would apply to the electricity sector, the transportation sector, the commercial and residential sector, and large industrial sources (those emitting more than 0.5 million metric tons per year of carbon dioxide ("CO2") equivalents).

3 PROJECT GREENHOUSE GAS IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will result in a significant greenhouse gas impact. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related greenhouse gas impacts are taken from the Initial Study Checklist in Appendix G of the State CEQA Guidelines (14 California Code of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

For informational purposes, the SCAQMD's Tier 4 Option 1 approach is utilized within this greenhouse gas analysis in order to evaluate if the Project GHG emissions fall 28.5% or more below 2005 BAU in accordance with the goals of AB 32.

The City of Moreno Valley does not have an adopted threshold of significance for GHG emissions. For CEQA purposes, the City has discretion to select an appropriate significance criterion, based on substantial evidence. The AQMD's adopted numerical threshold of 10,000 MTCO2e per year for industrial stationary source emissions is selected as the significance criterion. The AQMD-adopted industrial threshold was selected by the City because the proposed Project is analogous to an industrial use much more closely than any other land use such as commercial or residential in terms of its expected operating characteristics. The Project proposes large buildings with loading bays and fenced truck courts that are expected to house businesses that serve mid- stream functions in the goods movement chain between manufacturers and consumers, characteristic of an industrial operation. Further, analysis of the Project's traffic generation in this EIR is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012 for industrial and warehouse uses. Also, 10,000 MTCO2e has been used as the significance threshold by many local government lead agencies for logistics projects throughout the SCAG region since the AQMD adopted this threshold for its own use. Further, to ensure that the threshold is conservative in its application, although the AQMD uses their adopted 10,000 MTCO2e threshold to determine the significance of stationary source emissions for industrial projects, the 10,000 MTCO2e threshold used in this EIR is applied to all sources of Project-related GHG emissions whether stationary source, mobile source, area source, or other.

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Use of this threshold is also consistent with guidance provided in the CAPCOA *CEQA and Climate Change* handbook, as such the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method is 10,000 metric tons carbon dioxide equivalent (MTCO2E) per year for industrial projects. This threshold is based on the review of 711 CEQA projects.

3.3 PROJECT RELATED GREENHOUSE GAS EMISSIONS

CEQA Guidelines 15064.4 (b) (1) states that a lead agency may use a model or methodology to quantify greenhouse gas emissions associated with a project (52).

On October 2, 2013, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2013.2.2. The purpose of this model is to more accurately calculate construction-source and operational-source criteria pollutant (NO_x, VOC, PM_{10}, $PM_{2.5}$, SO_x, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (53). Accordingly, the latest version of CalEEMod™ has been used for this Project to determine construction and operational air quality impacts. Output from the model runs for both construction and operational activity are provided in Appendix 3.1

3.4 CONSTRUCTION AND OPERATIONAL LIFE-CYCLE ANALYSIS

A full life-cycle analysis (LCA) for construction and operational activity is not included in this analysis due to the lack of consensus guidance on LCA methodology at this time. Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the project development, infrastructure and on-going operations) depends on emission factors or econometric factors that are not well established for all processes. At this time a LCA would be extremely speculative and thus has not been prepared.

Additionally, the SCAQMD recommends analyzing direct and indirect project GHG emissions generated within California and not life-cycle emissions because the life-cycle effects from a project could occur outside of California, might not be very well understood or documented, and would be challenging to mitigate (54). Additionally, the science to calculate life cycle emissions is not yet established or well defined, therefore SCAQMD has not recommended, and is not requiring, life-cycle emissions analysis.

3.5 CONSTRUCTION EMISSIONS

The report, Indian Street Commerce Center Air Quality Impact Analysis (Urban Crossroads, Inc., 2016) (Project AQIA) provides additional details on the specific construction-related inputs programmed in the CalEEMod model (55).

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Project construction activities would generate GHG emissions of CO_2 and CH_4. Construction-source GHG emissions are quantified and amortized over the life of the Project. To this end, and consistent with SCAQMD-recommended methodology, greenhouse gas emissions generated by Project construction activities were totaled and then divided by 30, reflecting an assumed 30 year Project life consistent with SCAQMD-recommended methodology. The resulting quotient was then summed with annual operational phase GHG emissions.

3.6 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of CO2, CH4, and N2O from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- Solid Waste
- Water Supply, Treatment and Distribution
- On-Site Equipment Emissions

3.6.1 AREA SOURCE EMISSIONS

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

3.6.2 ENERGY SOURCE EMISSIONS

Combustion Emissions Associated with Natural Gas and Electricity

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod™ default parameters were used.

3.6.3 MOBILE SOURCE EMISSIONS

Vehicles

Project-related operational air quality impacts derive predominantly from mobile sources. In this regard, approximately 92 percent (by weight) of all Project operational-source emissions would be generated by mobile sources (vehicles). Neither the Project Applicant nor the City has

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any regulatory control over these tail pipe emissions. Rather, vehicle tail pipe source emissions are regulated by CARB and USEPA. As summarized previously herein, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve.

Project mobile source air quality impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the report, Indian Street Commerce Center Traffic Impact Analysis (Urban Crossroads) 2016 were utilized in this analysis (56). It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. Notwithstanding, for purposes of the air quality study, the PCE trips were not used. Rather, to more accurately estimate and model vehicular-source emissions, the actual number of vehicles, by vehicle classification (e.g., passenger cars (including light trucks), heavy trucks) were used in the analysis.

For purposes of this analysis, the following ITE land use codes and vehicle mixes have been utilized:

- ITE land use code 140 (Manufacturing) has been used to derive site specific trip generation estimates. Manufacturing facilities (ITE Land Use Code 140) are areas where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research and associated functions. The ITE *Trip Generation* manual includes very limited data regarding the types of vehicles that are generated for manufacturing uses (passenger cars and various sizes of trucks). Total vehicle mix percentages were obtained from the City of Fontana's Truck Trip Generation Study for Heavy Industrial (Land Use Code 110) (57) for the manufacturing use proposed as part of the Project.
- ITE land use code 152 (High-Cube Warehousing) has been used to derive site specific trip generation. High-cube warehouse/distribution centers (ITE Land Use Code 152) are a unique land use type within the larger, more generalized industrial land use category. ITE's most recent edition of the Trip Generation manual (ITE 9th Edition), published in 2012, defines "high-cube warehouses" as "…used for storage of materials, goods and merchandise prior to their distribution to retail outlets, distribution centers or other warehouses. These facilities are typically characterized by ceiling heights of at least 24 feet with small employment counts due to a high level of mechanization." The average square footage for the sites surveyed for high-cube warehouse/distribution center (Land Use 152) use is above 500,000 square feet. The number of sites observed in the compilation of this data ranges from 57-70 sites of which more than 20 sites exceed 1,000,000 square feet in gross floor area. The weighted average daily trip generation

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rate for high-cube warehouse (Land Use 152) use is 1.68 trips per thousand square feet (TSF). Total vehicle mix percentages were also obtained from the ITE Trip Generation manual in conjunction with the South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type (58). The SCAQMD is currently recommending the use of the ITE Trip Generation manual in conjunction with their truck mix by axle-type to better quantify trip rates associated with local warehouse and distribution projects, as truck emission represent more than 90 percent of air quality impacts from these projects. This recommended procedure has been utilized for the purposes of this analysis in effort to be consistent with other technical studies being prepared for the Project. The percentage of trucks has been determined from the table shown on page 267 of the ITE *Trip Generation* manual. As shown on page 267, the truck trip generation rate for weekday daily traffic is 0.64 or 38.1% of the total traffic. Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks. For the purposes of this analysis, the percentage of trucks, by axle type, were obtained from the SCAQMD interim recommended truck mix. The SCAQMD has recently performed surveys of existing facilities and compiled the data to provide interim guidance on the mix of heavy trucks for these types of high-cube warehousing/distribution facilities. Based on this interim guidance from the SCAQMD, the following truck fleet mix was utilized for the purposes of estimating the truck trip generation for the site: 22.03% of the total trucks as 2-axle trucks, 17.76% of the total trucks as 3-axle trucks, and 60.31% of the total trucks as 4+-axle trucks.

3.5.3.1 Trip Length

Background

A technical deficiency inherent in calculating the projected vehicle emissions associated with any project is related to the estimation of trip length and vehicle miles traveled (VMT). VMT for a given project is calculated by the total number of vehicle trips to/from the Project x average trip length. This method of estimating VMT for use in calculating vehicle emissions likely results in the over-estimation and double-counting of emissions because, for a distribution warehouse center such as the Project, the land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. In this regard, the Project would, to a large extent, redistribute existing mobile-source emissions rather than generate additional emissions within the Basin. As such, the estimation of the Indian Street Commerce Center Project's vehicular-source emissions is likely overstated in that no credit for, or reduction in, emissions is assumed based on diversion of existing trips.

Provided below is a summary of the VMT recommendations of the SCAQMD and SCAG, followed by a description of the methodology used to calculate the VMT rates used in this AQIA.

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SCAQMD Recommendation

In the last five years, the SCAQMD has provided numerous comments on the trip length for warehouse/distribution and industrial land use projects (59). The SCAQMD asserts that the model-default trip length in CalEEMod™ and the URBan EMISsions (URBEMIS) 2007 model (version 9.2.4) would underestimate emissions. The SCAQMD asserts that for warehouse, distribution center, and industrial land use projects, most of the heavy-duty trucks would be hauling consumer goods, often from the Ports of Long Beach and Los Angeles (POLA and POLB) and/or to destinations outside of California. The SCAQMD states that for this reason, the CalEEMod™ and the URBan EMISsions model default trip length (approximately 12.6 miles) would not be representative of activities at like facilities. The SCAQMD generally recommends the use of a 40-mile one-way trip length.

Southern California Association of Government (SCAG) Heavy Duty Truck Model

SCAG is comprised of six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 190 cities in Southern California, and is the organization charged with addressing and resolving short- and long-term regional policy issues. The SCAG region also consists of 14 sub-regional entities recognized by the Regional Council as partners in the regional policy planning process. The SCAG region has more than 19 million residents and encompasses more than 38,000 square miles, representing the largest and most diverse region in the country.

SCAG maintains a regional transportation model. In its most recent (2008) transportation validation for the 2003 Regional Model, SCAG indicates the average internal truck trip length for the SCAG region is 5.92 miles for Light Duty Trucks, 13.06 miles for Medium Duty Trucks, and 24.11 miles for Heavy Duty Trucks.

Approach for Analysis of the Project

Trip lengths and VMT estimates employed in this AQIA report generate vehicular-source emissions that would represent a maximum impact scenario. Other Environmental Impact Reports (EIRs) for similar land use projects within the region have utilized these same or similar estimates. Though the VMT analyzed in this analysis may differ from the Project's traffic impact analysis, to maintain analytic consistency and establish the maximum impact scenario noted above, the following approach has been utilized in calculating emissions associated with vehicles accessing the Project. This approach is consistent with professional industry practice (60) (61) (62).

For passenger car trips, the CalEEMod default for a one-way trip length of 16.6 miles was assumed. For heavy duty trucks, an average trip length was derived from distances from the Project site to the far edges of the South Coast Air Basin (SCAB) as follows.

- Project site to the Port of Los Angeles/Long Beach: 80 miles;
- Project site to East on State Route 60: 30 miles;
- Project site to San Diego County line: 60 miles;
- Project site to Inland Empire: 50 miles;

- Project site to Perris destinations: 10 miles;
- Project site to Moreno Valley destinations: 10 miles;

Assuming that 50% of all delivery trips will travel to and from the Project and the Port of Los Angeles/Long Beach, 10% go East on the State Route 60, 20% go to San Diego, 10% go to the Inland Empire, 5% go to Perris destinations and the remainder as Moreno Valley destinations. The average truck trip length is calculated as 61 miles.

For each land use (Manufacturing and High-Cube Warehouse), two separate model runs were utilized in order to more accurately model emissions resulting from vehicle operations. The first run analyzed passenger car emissions, which incorporated a default trip length of 16.6 miles for passenger cars and a fleet mix of 100% Light-Duty-Auto vehicles (LDA). The second run analyzed truck emissions, which incorporated an average truck trip length of 61 miles. A fleet mix of 22.03% LHD, 17.66% MHD, and 60.31% HHD was used for High-Cube Warehouse and a fleet mix of 15.76% LHD, 32.82% MHD, and 51.42% HHD was used for Manufacturing Warehouse. The estimated emissions resulting from vehicle operations are summarized in Table 3-7 (presented later in this report.) Detailed emission calculations are provided in Appendix 3.2.

3.6.4 Solid Waste

The Project land uses will result in the generation and landfill disposal of solid waste. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by the CalEEMod™ model using default parameters.

3.6.5 Water Supply, Treatment and Distribution

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. Water demand was estimated based on the CalEEMod™ model using default parameters.

3.6.6 On-Site Equipment Emissions

It is common for an industrial warehouse project to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks have a horsepower (hp) range of approximately 175 hp to 200 hp (63). Based on the latest available information from SCAQMD (64); high-cube warehouse projects typically have 3.6 yard trucks per million square feet of building space. For this particular Project, on-site modeled operational equipment includes two (2) yard tractors operating at 4 hours a day (65) for 365 days of the year[9]. In addition to the use of yard trucks operating at the Project site,

[9] 4 hour daily on-site operation of the yard trucks is based on the Southern California International Gateway Recirculated Draft EIR. Table C1.2-BL-17 *Activity Data for Existing Business CHE – 2010 Baseline* indicates that the average annual hours of operation for all diesel Container Handling Equipment, Forklifts, and Yard Tractors totaled 72,187 annual operating hours. The total number of pieces of equipment equals 52. As

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forklifts are a common piece of equipment used in warehouse operations. The Project includes two (2) 89 hp yard forklifts operating at 4 hours a day for 365 days of the year interior to the building. However for purposes of the AQIA forklifts are not included in the health risk calculations since there is no diesel exhaust associated with the forklifts as they are assumed to be non-diesel consistent with industry standards.

As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) will be powered by non-diesel fueled engines and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

3.7 EMISSIONS SUMMARY

The total amount of Project-related GHG emissions would total 12,154.98 MTCO2e as shown on Table 3-3.

INCREMENTAL PROJECT GHG EMISSIONS ARE CUMULATIVELY CONSIDERABLE

The City of Moreno Valley does not have an adopted threshold of significance for GHG emissions. For CEQA purposes, the City has discretion to select an appropriate significance criterion, based on substantial evidence. The AQMD's adopted numerical threshold of 10,000 MTCO2e per year for industrial stationary source emissions is selected as the significance criterion. The AQMD-adopted industrial threshold was selected by the City because the proposed Project is analogous to an industrial use much more closely than any other land use such as commercial or residential in terms of its expected operating characteristics. The Project proposes large buildings with loading bays and fenced truck courts that are expected to house businesses that serve mid- stream functions in the goods movement chain between manufacturers and consumers, characteristic of an industrial operation. Further, analysis of the Project's traffic generation in this EIR is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012 for industrial and warehouse uses. Also, 10,000 MTCO2e has been used as the significance threshold by many local government lead agencies for logistics projects throughout the SCAG region since the AQMD adopted this threshold for its own use. Further, to ensure that the threshold is conservative in its application, although the AQMD uses their adopted 10,000 MTCO2e threshold to determine the significance of stationary source emissions for industrial projects, the 10,000 MTCO2e threshold used in this EIR is applied to all sources of Project-related GHG emissions whether stationary source, mobile source, area source, or other.

Use of this threshold is also consistent with guidance provided in the CAPCOA *CEQA and Climate Change* handbook, as such the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD

such, 72,187/52 = 1,388 annual hours per piece of equipment. 1,388 annual hours per piece of equipment/365 days = an average of 3.80 hours per day per piece of equipment. As a conservative measure this is rounded up to 4 hours for analytical purposes.

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using this method is 10,000 metric tons carbon dioxide equivalent (MTCO2E) per year for industrial projects. This threshold is based on the review of 711 CEQA projects.

The Project will result in approximately 1,338.22 MTCO2e per year (approximately 11% of total Project GHG emissions) from construction, area, energy, waste, water usage, and on-site emissions. In addition, the Project has the potential to result in an additional 10,816.76 MTCO2e per year (approximately 89% of total Project GHG emissions) from mobile sources, if the assumption is made that all of the vehicle trips to and from the Project are "new" trips resulting from the development of the Project. As such, the Project has the potential to generate a total of approximately 12,154.98 MTCO2e per year and would exceed the SCAQMD's numeric threshold of 10,000 MTCO2e if it were applied. Neither the Project Applicant nor the Lead Agency can substantively or materially affect reductions in Project mobile-source GHG emissions. These emissions sources are regulated by CARB and USEPA. As a result of CARB and USEPA actions, Basin-wide vehicular-source emissions (including GHG Emissions) have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve. Future CARB and USEPA actions could be expected to have a positive effect on Project-related vehicular-source emissions, resulting in incremental reductions in vehicular-source GHG emissions when compared to GHG emissions estimates presented here. No further feasible measures are available that would substantively mitigate the Project's operational-source GHG emissions.[10] Thus, the Project has the potential to result in a cumulatively considerable impact with respect to GHG emissions.

10 It is noted further, that in developing the 10,000 MT CO2e/year significance threshold for industrial uses, SCAQMD specifically excluded GHG emissions from mobile sources. If this same protocol was employed here rather than the conservative approach taken, Project GHG emissions would total less than 1,400 MTCO2e/year; substantively less than the 10,000 MT CO2e/year significance threshold employed by SCAQMD.

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TABLE 3-1: PROJECT GREENHOUSE GAS EMISSIONS

Emission Source	Emissions (metric tons per year)			
	CO_2	CH_4	N_2O	Total CO_2E
Annual construction-related emissions amortized over 30 years	45.02	6.67E-03	--	45.16
High-Cube				
Area	0.02	4.00E-05	--	0.02
Energy	2,297.67	0.11	0.03	262.43
Mobile Sources (Trucks)	6,252.59	0.05	--	6,253.70
Mobile Sources (Passenger Cars)	616.63	0.03	--	617.17
On-site Emissions	105.33	0.03		106.02
Waste	68.14	4.03	--	152.70
Water Usage	208.38	2.16	0.05	270.27
Manufacturing				
Area	4.05E-03	1.00E-05	--	4.28E-03
Energy	362.73	0.01	5.29E-03	364.70
Mobile Sources (Trucks)	3,598.15	0.03	0.02	3,598.73
Mobile Sources (Passenger Cars)	346.85	0.01	--	347.16
Waste	22.47	1.33	--	50.35
Water Usage	67.22	0.68	0.02	86.57
Total CO_2E (All Sources)	**12,154.98**			

Source: CalEEMod™ model output, See Appendix 3.1 for detailed model outputs.
Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding. Table results include scientific notation. *e* is used to represent *times ten raised to the power of* (which would be written as x 10^{n}) and is followed by the value of the exponent

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4 BUSINESS AS USUAL VS 2020 PROJECT EMISSIONS

To further evaluate GHG emissions impact significance, GHG emissions that would be generated pursuant to development of the Project area are compared with GHG emissions for the "Business as Usual" scenario. This comparison indicates whether GHG emissions generated by development of the Project area would likely be consistent with the CARB Scoping Plan GHG emissions reductions measures and GHG emissions reductions targets. In summary, as part of the AB 32 Scoping Plan, 2005, the Air Resources Board (ARB) recommended a greenhouse gas reduction goal for local governments of 28.5% below 2005 levels by 2020 to ensure that their municipal and community-wide emissions match the State's reduction target.

Results of the analysis indicate that the Project GHG emissions may result in or cause a potentially significant impact on the environment. To this end, the analysis demonstrates that the Project is consistent with, or otherwise not in conflict with, recommended measures and actions in the CARB Scoping Plan. The Scoping Plan establishes strategies and measures to implement in order to achieve the GHG reductions goals set forth in AB 32. As shown in Table 4-1, Project GHG emissions would be reduced by approximately 22.85% when compared to the 2005 BAU scenario. Thus, Project-related emissions may have a significant direct or indirect impact on GHG and climate change.

TABLE 4-1: SUMMARY OF GHG EMISSIONS FOR 2005 BAU VS 2020 PROJECT

Emission Source	CO2e Emissions Levels by Year (Metric Tons Per Year)	
	2005	2020
Annual Construction-related emissions amortized over 30 years	45.16	45.16
Area	0.02	0.02
Energy Use	870.08	587.56
Mobile Sources	13,193.19	10,237.08
On-Site	123.07	102.36
Waste	203.05	203.05
Water Usage	514.06	323.37
Total	14,948.63	11,498.60
Project Reduction over 2005 levels	**23.08%**	
CAP Minimum Improvement	**28.5%**	
Meets Requirement?	**NO**	

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6 CERTIFICATION

The contents of this greenhouse gas study report represent an accurate depiction of the greenhouse gas impacts associated with the proposed Indian Street Commerce Center Project. The information contained in this greenhouse gas report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 660-1994 ext. 217.

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Environmental Site Assessment – American Society for Testing and Materials • June, 2013
Planned Communities and Urban Infill – Urban Land Institute • June, 2011
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APPENDIX 3.1:

CALEEMOD EMISSIONS MODEL OUTPUTS

Construction-Mitigated

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	372.00	Space	9.39	148,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total lot acreage: 19.64; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Based on a 2018 opening year

Off-road Equipment - Based on a 8 hour workday and past project experience

Off-road Equipment - Based on a 8 hour workday

Off-road Equipment - Off-highway trucks=water trucks; based on past project experience

Off-road Equipment -

Off-road Equipment - Off-highway trucks=water trucks; based on past project experience

Demolition -

Grading -

Architectural Coating - Based on updated Rule 1113- All flat, nonflat, and default coatings should be no more than 50 g/L low VOC level; Interior/Exterior area based on information provided by the architect

Vehicle Trips - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Road Dust - Construction run only

Area Coating - Construction run only

Landscape Equipment - Construction run only

Energy Use - Construction run only

Water And Wastewater - Construction run only

Solid Waste - Construction run only

Construction Off-road Equipment Mitigation - For site preparation and grading phase, all construction equipment greater than 150 HP shall be CARB certified Tier 3

Consumer Products - Construction run only

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	225,407.00	125,820.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	676,221.00	131,376.00

tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	40.00
tblConsumerProducts	ROG_EF	1.98E-05	1E-10
tblEnergyUse	LightingElect	3.36	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	0.82	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	2.69	0.00
tblEnergyUse	T24E	0.45	0.00
tblEnergyUse	T24NG	16.16	0.00
tblEnergyUse	T24NG	2.11	0.00

tblGrading	MaterialImported	0.00	3,000.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LotAcreage	3.35	9.39
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	HorsePower	400.00	189.00
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	110.69	0.00
tblSolidWaste	SolidWasteGenerationRate	335.66	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00

tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00

tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	3.82	0.00
tblVehicleTrips	WD_TR	2.59	0.00
tblWater	IndoorWaterUseRate	20,643,687.50	0.00
tblWater	IndoorWaterUseRate	82,574,750.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.7621	6.7994	6.1724	0.0110	0.7632	0.3393	1.1024	0.2710	0.3155	0.5866	0.0000	940.5012	940.5012	0.1485	0.0000	943.6188
2018	0.5849	2.1330	2.5662	5.0100e-003	0.1799	0.1140	0.2940	0.0484	0.1077	0.1561	0.0000	409.9734	409.9734	0.0515	0.0000	411.0541
Total	**1.3470**	**8.9324**	**8.7385**	**0.0161**	**0.9431**	**0.4533**	**1.3964**	**0.3194**	**0.4232**	**0.7427**	**0.0000**	**1,350.4746**	**1,350.4746**	**0.1999**	**0.0000**	**1,354.6728**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.5654	5.0079	5.8857	0.0110	0.5082	0.2528	0.7610	0.1624	0.2397	0.4021	0.0000	940.5006	940.5006	0.1485	0.0000	943.6182
2018	0.5849	2.1330	2.5662	5.0100e-003	0.1799	0.1140	0.2940	0.0484	0.1077	0.1561	0.0000	409.9732	409.9732	0.0515	0.0000	411.0539
Total	**1.1503**	**7.1409**	**8.4518**	**0.0161**	**0.6881**	**0.3668**	**1.0549**	**0.2108**	**0.3474**	**0.5582**	**0.0000**	**1,350.4738**	**1,350.4738**	**0.1999**	**0.0000**	**1,354.6720**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**14.61**	**20.06**	**3.28**	**0.00**	**27.03**	**19.08**	**24.45**	**34.02**	**17.92**	**24.85**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0000e-005	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0000**	**9.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0000e-005	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0000**	**9.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/28/2017	2/10/2017	5	10	
2	Grading	Grading	2/11/2017	3/24/2017	5	30	
3	Building Construction	Building Construction	3/25/2017	5/18/2018	5	300	
4	Paving	Paving	5/19/2018	6/15/2018	5	20	
5	Architectural Coating	Architectural Coating	6/16/2018	8/10/2018	5	40	

Acres of Grading (Site Preparation Phase): 10

Acres of Grading (Grading Phase): 210

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 131,376; Non-Residential Outdoor: 125,820 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	2	8.00	208	0.43
Site Preparation	Excavators	4	8.00	162	0.38
Site Preparation	Off-Highway Trucks	2	8.00	189	0.50
Site Preparation	Rubber Tired Dozers	4	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	208	0.43
Grading	Excavators	0	8.00	162	0.38
Grading	Graders	4	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.50
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	4	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Aerial Lifts	4	8.00	62	0.31
Architectural Coating	Air Compressors	4	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	30.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	14	35.00	0.00	375.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	250.00	98.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	8	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1257	0.0000	0.1257	0.0668	0.0000	0.0668	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0448	0.5079	0.3239	4.4000e-004		0.0228	0.0228		0.0210	0.0210	0.0000	40.9655	40.9655	0.0126	0.0000	41.2291
Total	**0.0448**	**0.5079**	**0.3239**	**4.4000e-004**	**0.1257**	**0.0228**	**0.1486**	**0.0668**	**0.0210**	**0.0878**	**0.0000**	**40.9655**	**40.9655**	**0.0126**	**0.0000**	**41.2291**

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	8.0000e-004	8.2900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4827	1.4827	8.0000e-005	0.0000	1.4843
Total	**5.4000e-004**	**8.0000e-004**	**8.2900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4827**	**1.4827**	**8.0000e-005**	**0.0000**	**1.4843**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0490	0.0000	0.0490	0.0260	0.0000	0.0260	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0108	0.2091	0.2582	4.4000e-004		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003	0.0000	40.9654	40.9654	0.0126	0.0000	41.2290
Total	**0.0108**	**0.2091**	**0.2582**	**4.4000e-004**	**0.0490**	**8.4500e-003**	**0.0575**	**0.0260**	**8.4500e-003**	**0.0345**	**0.0000**	**40.9654**	**40.9654**	**0.0126**	**0.0000**	**41.2290**

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	8.0000e-004	8.2900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4827	1.4827	8.0000e-005	0.0000	1.4843
Total	**5.4000e-004**	**8.0000e-004**	**8.2900e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4827**	**1.4827**	**8.0000e-005**	**0.0000**	**1.4843**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2922	0.0000	0.2922	0.1114	0.0000	0.1114	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2120	2.4443	1.3705	2.0100e-003		0.1100	0.1100		0.1012	0.1012	0.0000	186.2917	186.2917	0.0571	0.0000	187.4904
Total	**0.2120**	**2.4443**	**1.3705**	**2.0100e-003**	**0.2922**	**0.1100**	**0.4022**	**0.1114**	**0.1012**	**0.2126**	**0.0000**	**186.2917**	**186.2917**	**0.0571**	**0.0000**	**187.4904**

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1700e-003	0.0502	0.0396	1.4000e-004	3.2100e-003	7.4000e-004	3.9500e-003	8.8000e-004	6.8000e-004	1.5600e-003	0.0000	12.4363	12.4363	9.0000e-005	0.0000	12.4381
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	2.7900e-003	0.0290	7.0000e-005	5.7600e-003	5.0000e-005	5.8100e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.1893	5.1893	2.7000e-004	0.0000	5.1949
Total	**5.0600e-003**	**0.0530**	**0.0686**	**2.1000e-004**	**8.9700e-003**	**7.9000e-004**	**9.7600e-003**	**2.4100e-003**	**7.2000e-004**	**3.1300e-003**	**0.0000**	**17.6255**	**17.6255**	**3.6000e-004**	**0.0000**	**17.6331**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1140	0.0000	0.1140	0.0434	0.0000	0.0434	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0492	0.9516	1.1494	2.0100e-003		0.0379	0.0379		0.0379	0.0379	0.0000	186.2915	186.2915	0.0571	0.0000	187.4901
Total	**0.0492**	**0.9516**	**1.1494**	**2.0100e-003**	**0.1140**	**0.0379**	**0.1519**	**0.0434**	**0.0379**	**0.0813**	**0.0000**	**186.2915**	**186.2915**	**0.0571**	**0.0000**	**187.4901**

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1700e-003	0.0502	0.0396	1.4000e-004	3.2100e-003	7.4000e-004	3.9500e-003	8.8000e-004	6.8000e-004	1.5600e-003	0.0000	12.4363	12.4363	9.0000e-005	0.0000	12.4381
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	2.7900e-003	0.0290	7.0000e-005	5.7600e-003	5.0000e-005	5.8100e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.1893	5.1893	2.7000e-004	0.0000	5.1949
Total	**5.0600e-003**	**0.0530**	**0.0686**	**2.1000e-004**	**8.9700e-003**	**7.9000e-004**	**9.7600e-003**	**2.4100e-003**	**7.2000e-004**	**3.1300e-003**	**0.0000**	**17.6255**	**17.6255**	**3.6000e-004**	**0.0000**	**17.6331**

3.4 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3302	2.8509	1.9371	2.8700e-003		0.1910	0.1910		0.1791	0.1791	0.0000	256.8521	256.8521	0.0643	0.0000	258.2016
Total	**0.3302**	**2.8509**	**1.9371**	**2.8700e-003**		**0.1910**	**0.1910**		**0.1791**	**0.1791**	**0.0000**	**256.8521**	**256.8521**	**0.0643**	**0.0000**	**258.2016**

3.4 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0797	0.8097	1.0823	2.1300e-003	0.0603	0.0124	0.0727	0.0172	0.0114	0.0286	0.0000	190.1746	190.1746	1.3600e-003	0.0000	190.2032
Worker	0.0898	0.1329	1.3816	3.3700e-003	0.2743	2.2500e-003	0.2765	0.0728	2.0700e-003	0.0749	0.0000	247.1092	247.1092	0.0128	0.0000	247.3773
Total	**0.1695**	**0.9426**	**2.4640**	**5.5000e-003**	**0.3346**	**0.0146**	**0.3492**	**0.0901**	**0.0135**	**0.1035**	**0.0000**	**437.2838**	**437.2838**	**0.0141**	**0.0000**	**437.5805**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3302	2.8509	1.9371	2.8700e-003		0.1910	0.1910		0.1791	0.1791	0.0000	256.8518	256.8518	0.0643	0.0000	258.2013
Total	**0.3302**	**2.8509**	**1.9371**	**2.8700e-003**		**0.1910**	**0.1910**		**0.1791**	**0.1791**	**0.0000**	**256.8518**	**256.8518**	**0.0643**	**0.0000**	**258.2013**

3.4 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0797	0.8097	1.0823	2.1300e-003	0.0603	0.0124	0.0727	0.0172	0.0114	0.0286	0.0000	190.1746	190.1746	1.3600e-003	0.0000	190.2032
Worker	0.0898	0.1329	1.3816	3.3700e-003	0.2743	2.2500e-003	0.2765	0.0728	2.0700e-003	0.0749	0.0000	247.1092	247.1092	0.0128	0.0000	247.3773
Total	**0.1695**	**0.9426**	**2.4640**	**5.5000e-003**	**0.3346**	**0.0146**	**0.3492**	**0.0901**	**0.0135**	**0.1035**	**0.0000**	**437.2838**	**437.2838**	**0.0141**	**0.0000**	**437.5805**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1419	1.2541	0.9359	1.4300e-003		0.0800	0.0800		0.0751	0.0751	0.0000	126.9258	126.9258	0.0316	0.0000	127.5900
Total	**0.1419**	**1.2541**	**0.9359**	**1.4300e-003**		**0.0800**	**0.0800**		**0.0751**	**0.0751**	**0.0000**	**126.9258**	**126.9258**	**0.0316**	**0.0000**	**127.5900**

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0373	0.3716	0.5185	1.0600e-003	0.0302	5.8400e-003	0.0360	8.6100e-003	5.3700e-003	0.0140	0.0000	93.4921	93.4921	6.8000e-004	0.0000	93.5063
Worker	0.0403	0.0603	0.6256	1.6800e-003	0.1371	1.0900e-003	0.1382	0.0364	1.0100e-003	0.0374	0.0000	118.9429	118.9429	5.9200e-003	0.0000	119.0673
Total	**0.0776**	**0.4319**	**1.1441**	**2.7400e-003**	**0.1673**	**6.9300e-003**	**0.1742**	**0.0450**	**6.3800e-003**	**0.0514**	**0.0000**	**212.4349**	**212.4349**	**6.6000e-003**	**0.0000**	**212.5736**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1419	1.2541	0.9359	1.4300e-003		0.0800	0.0800		0.0751	0.0751	0.0000	126.9256	126.9256	0.0316	0.0000	127.5898
Total	**0.1419**	**1.2541**	**0.9359**	**1.4300e-003**		**0.0800**	**0.0800**		**0.0751**	**0.0751**	**0.0000**	**126.9256**	**126.9256**	**0.0316**	**0.0000**	**127.5898**

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0373	0.3716	0.5185	1.0600e-003	0.0302	5.8400e-003	0.0360	8.6100e-003	5.3700e-003	0.0140	0.0000	93.4921	93.4921	6.8000e-004	0.0000	93.5063
Worker	0.0403	0.0603	0.6256	1.6800e-003	0.1371	1.0900e-003	0.1382	0.0364	1.0100e-003	0.0374	0.0000	118.9429	118.9429	5.9200e-003	0.0000	119.0673
Total	**0.0776**	**0.4319**	**1.1441**	**2.7400e-003**	**0.1673**	**6.9300e-003**	**0.1742**	**0.0450**	**6.3800e-003**	**0.0514**	**0.0000**	**212.4349**	**212.4349**	**6.6000e-003**	**0.0000**	**212.5736**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0161	0.1716	0.1449	2.2000e-004		9.3900e-003	9.3900e-003		8.6400e-003	8.6400e-003	0.0000	20.3687	20.3687	6.3400e-003	0.0000	20.5019
Paving	0.0123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0284**	**0.1716**	**0.1449**	**2.2000e-004**		**9.3900e-003**	**9.3900e-003**		**8.6400e-003**	**8.6400e-003**	**0.0000**	**20.3687**	**20.3687**	**6.3400e-003**	**0.0000**	**20.5019**

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	7.2000e-004	7.5100e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4273	1.4273	7.0000e-005	0.0000	1.4288
Total	**4.8000e-004**	**7.2000e-004**	**7.5100e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4273**	**1.4273**	**7.0000e-005**	**0.0000**	**1.4288**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0161	0.1716	0.1449	2.2000e-004		9.3900e-003	9.3900e-003		8.6400e-003	8.6400e-003	0.0000	20.3687	20.3687	6.3400e-003	0.0000	20.5019
Paving	0.0123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0284**	**0.1716**	**0.1449**	**2.2000e-004**		**9.3900e-003**	**9.3900e-003**		**8.6400e-003**	**8.6400e-003**	**0.0000**	**20.3687**	**20.3687**	**6.3400e-003**	**0.0000**	**20.5019**

3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	7.2000e-004	7.5100e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4273	1.4273	7.0000e-005	0.0000	1.4288
Total	**4.8000e-004**	**7.2000e-004**	**7.5100e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4273**	**1.4273**	**7.0000e-005**	**0.0000**	**1.4288**

3.6 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2980					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0352	0.2699	0.2837	4.5000e-004		0.0176	0.0176		0.0175	0.0175	0.0000	39.3012	39.3012	6.3400e-003	0.0000	39.4344
Total	**0.3332**	**0.2699**	**0.2837**	**4.5000e-004**		**0.0176**	**0.0176**		**0.0175**	**0.0175**	**0.0000**	**39.3012**	**39.3012**	**6.3400e-003**	**0.0000**	**39.4344**

3.6 Architectural Coating - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2300e-003	4.8200e-003	0.0501	1.3000e-004	0.0110	9.0000e-005	0.0111	2.9100e-003	8.0000e-005	2.9900e-003	0.0000	9.5154	9.5154	4.7000e-004	0.0000	9.5254
Total	**3.2300e-003**	**4.8200e-003**	**0.0501**	**1.3000e-004**	**0.0110**	**9.0000e-005**	**0.0111**	**2.9100e-003**	**8.0000e-005**	**2.9900e-003**	**0.0000**	**9.5154**	**9.5154**	**4.7000e-004**	**0.0000**	**9.5254**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2980					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0352	0.2699	0.2837	4.5000e-004		0.0176	0.0176		0.0175	0.0175	0.0000	39.3012	39.3012	6.3400e-003	0.0000	39.4344
Total	**0.3332**	**0.2699**	**0.2837**	**4.5000e-004**		**0.0176**	**0.0176**		**0.0175**	**0.0175**	**0.0000**	**39.3012**	**39.3012**	**6.3400e-003**	**0.0000**	**39.4344**

3.6 Architectural Coating - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2300e-003	4.8200e-003	0.0501	1.3000e-004	0.0110	9.0000e-005	0.0111	2.9100e-003	8.0000e-005	2.9900e-003	0.0000	9.5154	9.5154	4.7000e-004	0.0000	9.5254
Total	**3.2300e-003**	**4.8200e-003**	**0.0501**	**1.3000e-004**	**0.0110**	**9.0000e-005**	**0.0111**	**2.9100e-003**	**8.0000e-005**	**2.9900e-003**	**0.0000**	**9.5154**	**9.5154**	**4.7000e-004**	**0.0000**	**9.5254**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0000e-005	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Unmitigated	1.0000e-005	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0000**	**9.0000e-005**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Total	**1.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**0.0000**	**9.0000e-005**

0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

10.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

High Cube- Trucks

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total lot acreage: 19.6437; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Area Mitigation - Based on updated Rule 1113- All flat, nonflat, and default coatings shall be no more than 50 g/L low VOC level

Energy Mitigation - PV system to serve office area (80% of total project kWh)

Water Mitigation -

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	2.11	1.76
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00

tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.37
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00

tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1398	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	293.1447	293.1447	0.0158	3.7500e-003	294.6374
Mobile	1.2397	21.9104	11.8822	0.0722	2.1522	0.3674	2.5196	0.5968	0.3380	0.9348	0.0000	6,379.3688	6,379.3688	0.0536	0.0000	6,380.4934
Offroad	0.0614	0.8207	0.2946	1.1500e-003		0.0265	0.0265		0.0244	0.0244	0.0000	105.3329	105.3329	0.0328	0.0000	106.0216
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	242.7016	268.8988	2.7048	0.0665	346.3029
Total	**3.4444**	**22.7625**	**12.2116**	**0.0735**	**2.1522**	**0.3963**	**2.5485**	**0.5968**	**0.3648**	**0.9616**	**94.3331**	**7,020.5643**	**7,114.8974**	**6.8337**	**0.0702**	**7,280.1695**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.8054	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	261.1012	261.1012	0.0140	3.3500e-003	262.4331
Mobile	1.2188	21.4840	11.7176	0.0708	2.1091	0.3601	2.4692	0.5849	0.3313	0.9162	0.0000	6,252.5924	6,252.5924	0.0525	0.0000	6,253.6953
Offroad	0.0614	0.8207	0.2946	1.1500e-003		0.0265	0.0265		0.0244	0.0244	0.0000	105.3329	105.3329	0.0328	0.0000	106.0216
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	20.9577	187.4223	208.3800	2.1635	0.0531	270.2699
Total	**3.0889**	**22.3345**	**12.0458**	**0.0721**	**2.1091**	**0.3888**	**2.4980**	**0.5849**	**0.3579**	**0.9428**	**89.0937**	**6,806.4651**	**6,895.5587**	**6.2895**	**0.0564**	**7,045.1341**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**12.10**	**5.49**	**3.77**	**3.54**	**2.00**	**8.56**	**3.02**	**2.00**	**8.56**	**4.49**	**5.55**	**4.55**	**4.56**	**8.44**	**19.61**	**4.68**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

Packet Pg. 4127

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.r

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	1.2397	21.9104	11.8822	0.0722	2.1522	0.3674	2.5196	0.5968	0.3380	0.9348	0.0000	6,379.3688	6,379.3688	0.0536	0.0000	6,380.4934
Mitigated	1.2188	21.4840	11.7176	0.0708	2.1091	0.3601	2.4692	0.5849	0.3313	0.9162	0.0000	6,252.5924	6,252.5924	0.0525	0.0000	6,253.6953

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	228.53	228.53	228.53	5,074,307	4,972,821
Total	228.53	228.53	228.53	5,074,307	4,972,821

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.220300	0.000000	0.176600	0.603100	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	228.6693	228.6693	0.0133	2.7600e-003	229.8039
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	259.0360	259.0360	0.0151	3.1200e-003	260.3211
NaturalGas Mitigated	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	639173	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.4500e-003**	**0.0313**	**0.0263**	**1.9000e-004**		**2.3800e-003**	**2.3800e-003**		**2.3800e-003**	**2.3800e-003**	**0.0000**	**34.1087**	**34.1087**	**6.5000e-004**	**6.3000e-004**	**34.3163**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	607750	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.2800e-003**	**0.0298**	**0.0250**	**1.8000e-004**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**32.4319**	**32.4319**	**6.2000e-004**	**5.9000e-004**	**32.6292**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	23.6777	1.3800e-003	2.9000e-004	23.7952
Unrefrigerated Warehouse-No Rail	1.04267e+006	235.3582	0.0137	2.8400e-003	236.5260
Total		**259.0360**	**0.0151**	**3.1300e-003**	**260.3212**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	40756	9.1997	5.4000e-004	1.1000e-004	9.2453
Unrefrigerated Warehouse-No Rail	972285	219.4697	0.0128	2.6500e-003	220.5585
Total		**228.6693**	**0.0133**	**2.7600e-003**	**229.8039**

0 Area Detail

1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.1398	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Mitigated	1.8054	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.1000e-004	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**2.1398**	**8.0000e-005**	**8.4800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0836					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.1000e-004	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**1.8054**	**8.0000e-005**	**8.4800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	268.8988	2.7048	0.0665	346.3029
Mitigated	208.3800	2.1635	0.0531	270.2699

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	82.5747 / 0	268.8988	2.7048	0.0665	346.3029
Total		**268.8988**	**2.7048**	**0.0665**	**346.3029**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	66.0598 / 0	208.3800	2.1635	0.0531	270.2699
Total		**208.3800**	**2.1635**	**0.0531**	**270.2699**

0 Waste Detail

1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.1360	4.0267	0.0000	152.6971
Unmitigated	68.1360	4.0267	0.0000	152.6971

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.0614	0.8207	0.2946	1.1500e-003		0.0265	0.0265		0.0244	0.0244	0.0000	105.3329	105.3329	0.0328	0.0000	106.0216
Total	**0.0614**	**0.8207**	**0.2946**	**1.1500e-003**		**0.0265**	**0.0265**		**0.0244**	**0.0244**	**0.0000**	**105.3329**	**105.3329**	**0.0328**	**0.0000**	**106.0216**

10.0 Vegetation

High Cube- Passenger Cars

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total lot acreage: 19.6437; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Area Mitigation - Based on updated Rule 1113- All flat, nonflat, and default coatings shall be no more than 50 g/L low VOC level

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Mobile Land Use Mitigation -

Energy Mitigation - PV system to serve office area (80% of total project kWh)

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	2.11	1.76
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00

tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.37	0.37
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00

tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04

0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1398	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	293.1447	293.1447	0.0158	3.7500e-003	294.6374
Mobile	0.1349	0.2177	2.4619	9.0200e-003	0.8366	5.1500e-003	0.8418	0.2221	4.7600e-003	0.2269	0.0000	616.6264	616.6264	0.0258	0.0000	617.1675
Offroad	0.0614	0.8207	0.2946	1.1500e-003		0.0265	0.0265		0.0244	0.0244	0.0000	105.3329	105.3329	0.0328	0.0000	106.0216
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	242.7016	268.8988	2.7048	0.0665	346.3029
Total	**2.3395**	**1.0698**	**2.7913**	**0.0104**	**0.8366**	**0.0340**	**0.8707**	**0.2221**	**0.0315**	**0.2536**	**94.3331**	**1,257.8219**	**1,352.1550**	**6.8059**	**0.0702**	**1,516.8436**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.8054	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	261.1012	261.1012	0.0140	3.3500e-003	262.4331
Mobile	0.1339	0.2137	2.4177	8.8400e-003	0.8199	5.0500e-003	0.8249	0.2177	4.6700e-003	0.2223	0.0000	604.4494	604.4494	0.0253	0.0000	604.9801
Offroad	0.0614	0.8207	0.2946	1.1500e-003		0.0265	0.0265		0.0244	0.0244	0.0000	105.3329	105.3329	0.0328	0.0000	106.0216
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	20.9577	187.4223	208.3800	2.1635	0.0531	270.2699
Total	**2.0040**	**1.0643**	**2.7458**	**0.0102**	**0.8199**	**0.0338**	**0.8537**	**0.2177**	**0.0313**	**0.2490**	**89.0937**	**1,158.3221**	**1,247.4157**	**6.2623**	**0.0564**	**1,396.4188**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**16.96**	**77.23**	**12.19**	**12.93**	**2.00**	**78.44**	**4.99**	**2.00**	**77.93**	**11.44**	**5.55**	**16.28**	**15.54**	**8.47**	**19.61**	**14.93**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

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E.2.r

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

0 Operational Detail - Mobile

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	0.1349	0.2177	2.4619	9.0200e-003	0.8366	5.1500e-003	0.8418	0.2221	4.7600e-003	0.2269	0.0000	616.6264	616.6264	0.0258	0.0000	617.1675
Mitigated	0.1339	0.2137	2.4177	8.8400e-003	0.8199	5.0500e-003	0.8249	0.2177	4.6700e-003	0.2223	0.0000	604.4494	604.4494	0.0253	0.0000	604.9801

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	371.36	371.36	371.36	2,243,925	2,199,046
Total	371.36	371.36	371.36	2,243,925	2,199,046

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	228.6693	228.6693	0.0133	2.7600e-003	229.8039
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	259.0360	259.0360	0.0151	3.1200e-003	260.3211
NaturalGas Mitigated	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	639173	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.4500e-003**	**0.0313**	**0.0263**	**1.9000e-004**		**2.3800e-003**	**2.3800e-003**		**2.3800e-003**	**2.3800e-003**	**0.0000**	**34.1087**	**34.1087**	**6.5000e-004**	**6.3000e-004**	**34.3163**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	607750	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.2800e-003**	**0.0298**	**0.0250**	**1.8000e-004**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**32.4319**	**32.4319**	**6.2000e-004**	**5.9000e-004**	**32.6292**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	23.6777	1.3800e-003	2.9000e-004	23.7952
Unrefrigerated Warehouse-No Rail	1.04267e+006	235.3582	0.0137	2.8400e-003	236.5260
Total		**259.0360**	**0.0151**	**3.1300e-003**	**260.3212**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	40756	9.1997	5.4000e-004	1.1000e-004	9.2453
Unrefrigerated Warehouse-No Rail	972285	219.4697	0.0128	2.6500e-003	220.5585
Total		**228.6693**	**0.0133**	**2.7600e-003**	**229.8039**

0 Area Detail

1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.1398	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Mitigated	1.8054	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.1000e-004	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**2.1398**	**8.0000e-005**	**8.4800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0836					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.1000e-004	8.0000e-005	8.4800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**1.8054**	**8.0000e-005**	**8.4800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	268.8988	2.7048	0.0665	346.3029
Mitigated	208.3800	2.1635	0.0531	270.2699

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	82.5747 / 0	268.8988	2.7048	0.0665	346.3029
Total		**268.8988**	**2.7048**	**0.0665**	**346.3029**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	66.0598 / 0	208.3800	2.1635	0.0531	270.2699
Total		**208.3800**	**2.1635**	**0.0531**	**270.2699**

0 Waste Detail

1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.1360	4.0267	0.0000	152.6971
Unmitigated	68.1360	4.0267	0.0000	152.6971

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.0614	0.8207	0.2946	1.1500e-003		0.0265	0.0265		0.0244	0.0244	0.0000	105.3329	105.3329	0.0328	0.0000	106.0216
Total	**0.0614**	**0.8207**	**0.2946**	**1.1500e-003**		**0.0265**	**0.0265**		**0.0244**	**0.0244**	**0.0000**	**105.3329**	**105.3329**	**0.0328**	**0.0000**	**106.0216**

10.0 Vegetation

Warehouse- Trucks

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Area Mitigation - Based on updated Rule 1113- all flat, nonflat, default coatings shall have 50 g/L low VOC levels

Energy Mitigation - PV system to serve office areas (20% of total project kWh)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	WorkerTripNumber	8.00	0.00

tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.33

tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	1.48
tblVehicleTrips	SU_TR	0.62	1.48
tblVehicleTrips	WD_TR	3.82	1.48

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5342	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Energy	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	362.7339	362.7339	0.0154	5.2900e-003	364.6974
Mobile	0.6862	12.1463	6.4182	0.0407	1.2667	0.2161	1.4828	0.3558	0.1988	0.5546	0.0000	3,598.1480	3,598.1480	0.0275	0.0000	3,598.7262
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	60.6754	67.2247	0.6762	0.0166	86.5757
Total	**1.2351**	**12.2801**	**6.5327**	**0.0415**	**1.2667**	**0.2263**	**1.4930**	**0.3558**	**0.2090**	**0.5648**	**29.0184**	**4,021.5613**	**4,050.5797**	**2.0471**	**0.0219**	**4,100.3583**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4506	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Energy	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	350.1754	350.1754	0.0148	5.1200e-003	352.0730
Mobile	0.6747	11.9105	6.3292	0.0399	1.2413	0.2118	1.4532	0.3487	0.1949	0.5436	0.0000	3,526.6931	3,526.6931	0.0270	0.0000	3,527.2602
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	5.2394	46.8556	52.0950	0.5409	0.0133	67.5675
Total	**1.1397**	**12.0414**	**6.4412**	**0.0407**	**1.2413**	**0.2218**	**1.4631**	**0.3487**	**0.2048**	**0.5535**	**27.7085**	**3,923.7281**	**3,951.4366**	**1.9106**	**0.0184**	**3,997.2596**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**7.73**	**1.94**	**1.40**	**1.95**	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**	**4.51**	**2.43**	**2.45**	**6.67**	**16.03**	**2.51**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6747	11.9105	6.3292	0.0399	1.2413	0.2118	1.4532	0.3487	0.1949	0.5436	0.0000	3,526.6931	3,526.6931	0.0270	0.0000	3,527.2602
Unmitigated	0.6862	12.1463	6.4182	0.0407	1.2667	0.2161	1.4828	0.3558	0.1988	0.5546	0.0000	3,598.1480	3,598.1480	0.0275	0.0000	3,598.7262

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	132.12	132.12	132.12	2,933,584	2,874,912
Parking Lot	0.00	0.00	0.00		
Total	132.12	132.12	132.12	2,933,584	2,874,912

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	61.00	8.40	6.90	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.157600	0.000000	0.328200	0.514200	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	207.7025	207.7025	0.0121	2.5000e-003	208.7330
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	217.0573	217.0573	0.0127	2.6200e-003	218.1342
NaturalGas Mitigated	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
NaturalGas Unmitigated	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	2.72988e+006	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0147**	**0.1338**	**0.1124**	**8.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**145.6766**	**145.6766**	**2.7900e-003**	**2.6700e-003**	**146.5632**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	2.66984e+006	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0144**	**0.1309**	**0.1099**	**7.9000e-004**		**9.9500e-003**	**9.9500e-003**		**9.9500e-003**	**9.9500e-003**	**0.0000**	**142.4730**	**142.4730**	**2.7300e-003**	**2.6100e-003**	**143.3400**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	935550	211.1776	0.0123	2.5500e-003	212.2253
Parking Lot	26048	5.8797	3.4000e-004	7.0000e-005	5.9089
Total		**217.0573**	**0.0127**	**2.6200e-003**	**218.1342**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	910141	205.4423	0.0120	2.4800e-003	206.4616
Parking Lot	10013	2.2602	1.3000e-004	3.0000e-005	2.2714
Total		**207.7025**	**0.0121**	**2.5100e-003**	**208.7330**

0 Area Detail

1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4506	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Unmitigated	0.5342	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Total	**0.5342**	**2.0000e-005**	**2.1100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2900e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Total	**0.4506**	**2.0000e-005**	**2.1100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	52.0950	0.5409	0.0133	67.5675
Unmitigated	67.2247	0.6762	0.0166	86.5757

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	67.2247	0.6762	0.0166	86.5757
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**67.2247**	**0.6762**	**0.0166**	**86.5757**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	16.5149 / 0	52.0950	0.5409	0.0133	67.5675
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**52.0950**	**0.5409**	**0.0133**	**67.5675**

10 Waste Detail

10.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	22.4691	1.3279	0.0000	50.3546
Mitigated	22.4691	1.3279	0.0000	50.3546

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Warehouse- Passenger Cars

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	497.64	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces. Parking represents ratio of total parking

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Area Mitigation - Based on updated Rule 1113- all flat, nonflat, default coatings shall have 50 g/L low VOC levels

Mobile Land Use Mitigation -

Energy Mitigation - PV system to serve office areas (20% of total project kWh)

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	497.64
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	WorkerTripNumber	8.00	0.00

tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	LHD2	6.6470e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MCY	4.3620e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MH	2.1170e-003	0.00
tblVehicleEF	MHD	0.02	0.00

tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	OBUS	1.9400e-003	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	SBUS	5.8800e-004	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleEF	UBUS	2.5020e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	2.34
tblVehicleTrips	SU_TR	0.62	2.34
tblVehicleTrips	WD_TR	3.82	2.34

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5342	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Energy	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	362.7339	362.7339	0.0154	5.2900e-003	364.6974
Mobile	0.0759	0.1225	1.3848	5.0700e-003	0.4706	2.9000e-003	0.4735	0.1249	2.6800e-003	0.1276	0.0000	346.8524	346.8524	0.0145	0.0000	347.1567
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	60.6754	67.2247	0.6762	0.0166	86.5757
Total	**0.6248**	**0.2563**	**1.4993**	**5.8700e-003**	**0.4706**	**0.0131**	**0.4837**	**0.1249**	**0.0129**	**0.1378**	**29.0184**	**770.2657**	**799.2841**	**2.0340**	**0.0219**	**848.7888**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4506	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Energy	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	350.1754	350.1754	0.0148	5.1200e-003	352.0730
Mobile	0.0753	0.1202	1.3599	4.9700e-003	0.4612	2.8400e-003	0.4640	0.1224	2.6300e-003	0.1251	0.0000	340.0028	340.0028	0.0142	0.0000	340.3013
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	5.2394	46.8556	52.0950	0.5409	0.0133	67.5675
Total	**0.5404**	**0.2511**	**1.4720**	**5.7600e-003**	**0.4612**	**0.0128**	**0.4740**	**0.1224**	**0.0126**	**0.1350**	**27.7085**	**737.0379**	**764.7464**	**1.8978**	**0.0184**	**810.3007**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**13.52**	**2.04**	**1.83**	**1.87**	**2.00**	**2.14**	**2.00**	**1.99**	**2.10**	**2.00**	**4.51**	**4.31**	**4.32**	**6.70**	**16.03**	**4.53**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

cres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0753	0.1202	1.3599	4.9700e-003	0.4612	2.8400e-003	0.4640	0.1224	2.6300e-003	0.1251	0.0000	340.0028	340.0028	0.0142	0.0000	340.3013
Unmitigated	0.0759	0.1225	1.3848	5.0700e-003	0.4706	2.9000e-003	0.4735	0.1249	2.6800e-003	0.1276	0.0000	346.8524	346.8524	0.0145	0.0000	347.1567

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	208.89	208.89	208.89	1,262,208	1,236,964
Parking Lot	0.00	0.00	0.00		
Total	208.89	208.89	208.89	1,262,208	1,236,964

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	207.7025	207.7025	0.0121	2.5000e-003	208.7330
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	217.0573	217.0573	0.0127	2.6200e-003	218.1342
NaturalGas Mitigated	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
NaturalGas Unmitigated	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	2.72988e+006	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0147**	**0.1338**	**0.1124**	**8.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**145.6766**	**145.6766**	**2.7900e-003**	**2.6700e-003**	**146.5632**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	2.66984e+006	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0144**	**0.1309**	**0.1099**	**7.9000e-004**		**9.9500e-003**	**9.9500e-003**		**9.9500e-003**	**9.9500e-003**	**0.0000**	**142.4730**	**142.4730**	**2.7300e-003**	**2.6100e-003**	**143.3400**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	935550	211.1776	0.0123	2.5500e-003	212.2253
Parking Lot	26048	5.8797	3.4000e-004	7.0000e-005	5.9089
Total		**217.0573**	**0.0127**	**2.6200e-003**	**218.1342**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	910141	205.4423	0.0120	2.4800e-003	206.4616
Parking Lot	10013	2.2602	1.3000e-004	3.0000e-005	2.2714
Total		**207.7025**	**0.0121**	**2.5100e-003**	**208.7330**

0 Area Detail

1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4506	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Unmitigated	0.5342	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Total	**0.5342**	**2.0000e-005**	**2.1100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2900e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2900e-003
Total	**0.4506**	**2.0000e-005**	**2.1100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	52.0950	0.5409	0.0133	67.5675
Unmitigated	67.2247	0.6762	0.0166	86.5757

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	67.2247	0.6762	0.0166	86.5757
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**67.2247**	**0.6762**	**0.0166**	**86.5757**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	16.5149 / 0	52.0950	0.5409	0.0133	67.5675
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**52.0950**	**0.5409**	**0.0133**	**67.5675**

0 Waste Detail

1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	22.4691	1.3279	0.0000	50.3546
Mitigated	22.4691	1.3279	0.0000	50.3546

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

2005 BAU High Cube- Trucks

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2005
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Area Coating -

Energy Use - Using historical data

Water And Wastewater -

Solid Waste -

Area Mitigation -

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleEF	HHD	0.02	0.60

tblVehicleEF	HHD	0.02	0.60
tblVehicleEF	HHD	0.02	0.60
tblVehicleEF	LDA	0.50	0.00
tblVehicleEF	LDA	0.50	0.00
tblVehicleEF	LDA	0.50	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LHD1	0.02	0.22
tblVehicleEF	LHD1	0.02	0.22
tblVehicleEF	LHD1	0.02	0.22
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18

tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Energy	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	402.7928	402.7928	0.0172	4.2500e-003	404.4731
Mobile	7.3437	84.1308	50.9845	0.5872	1.8547	3.7116	5.5663	0.4843	3.4201	3.9044	0.0000	7,431.9734	7,431.9734	0.3373	0.0000	7,439.0564
Offroad	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	307.6883	333.8855	2.7048	0.0665	411.2896
Total	**9.6459**	**85.8853**	**51.4546**	**0.6011**	**1.8547**	**3.7760**	**5.6306**	**0.4843**	**3.4844**	**3.9688**	**94.3331**	**8,265.2691**	**8,359.6022**	**7.0989**	**0.0707**	**8,530.5999**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Energy	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	402.7928	402.7928	0.0172	4.2500e-003	404.4731
Mobile	7.3437	84.1308	50.9845	0.5872	1.8547	3.7116	5.5663	0.4843	3.4201	3.9044	0.0000	7,431.9734	7,431.9734	0.3373	0.0000	7,439.0564
Offroad	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	307.6883	333.8855	2.7044	0.0664	411.2478
Total	**9.6459**	**85.8853**	**51.4546**	**0.6011**	**1.8547**	**3.7760**	**5.6306**	**0.4843**	**3.4844**	**3.9688**	**94.3331**	**8,265.2691**	**8,359.6022**	**7.0984**	**0.0706**	**8,530.5581**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.63**	**1.99**	**0.82**	**2.26**	**0.00**	**1.61**	**1.08**	**0.00**	**1.75**	**1.54**	**0.00**	**1.49**	**1.47**	**0.19**	**0.14**	**1.44**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

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Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.r

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	7.3437	84.1308	50.9845	0.5872	1.8547	3.7116	5.5663	0.4843	3.4201	3.9044	0.0000	7,431.9734	7,431.9734	0.3373	0.0000	7,439.0564
Mitigated	7.3437	84.1308	50.9845	0.5872	1.8547	3.7116	5.5663	0.4843	3.4201	3.9044	0.0000	7,431.9734	7,431.9734	0.3373	0.0000	7,439.0564

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	228.53	228.53	228.53	5,074,307	5,074,307
Total	228.53	228.53	228.53	5,074,307	5,074,307

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.220300	0.000000	0.176600	0.603100	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	354.9644	354.9644	0.0163	3.3800e-003	356.3536
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	354.9644	354.9644	0.0163	3.3800e-003	356.3536
NaturalGas Mitigated	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	896271	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.8300e-003**	**0.0439**	**0.0369**	**2.6000e-004**		**3.3400e-003**	**3.3400e-003**		**3.3400e-003**	**3.3400e-003**	**0.0000**	**47.8284**	**47.8284**	**9.2000e-004**	**8.8000e-004**	**48.1195**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	896271	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.8300e-003**	**0.0439**	**0.0369**	**2.6000e-004**		**3.3400e-003**	**3.3400e-003**		**3.3400e-003**	**3.3400e-003**	**0.0000**	**47.8284**	**47.8284**	**9.2000e-004**	**8.8000e-004**	**48.1195**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	30.0178	1.3800e-003	2.9000e-004	30.1352
Unrefrigerated Warehouse-No Rail	1.13551e+006	324.9466	0.0149	3.0900e-003	326.2183
Total		**354.9644**	**0.0163**	**3.3800e-003**	**356.3536**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	30.0178	1.3800e-003	2.9000e-004	30.1352
Unrefrigerated Warehouse-No Rail	1.13551e+006	324.9466	0.0149	3.0900e-003	326.2183
Total		**354.9644**	**0.0163**	**3.3800e-003**	**356.3536**

0 Area Detail

1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Mitigated	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3800e-003	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Total	**2.1403**	**1.3000e-004**	**0.0106**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**8.0000e-005**	**0.0000**	**0.0179**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3800e-003	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Total	**2.1403**	**1.3000e-004**	**0.0106**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**8.0000e-005**	**0.0000**	**0.0179**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	333.8855	2.7048	0.0665	411.2896
Mitigated	333.8855	2.7044	0.0664	411.2478

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	82.5747 / 0	333.8855	2.7048	0.0665	411.2896
Total		**333.8855**	**2.7048**	**0.0665**	**411.2896**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	82.5747 / 0	333.8855	2.7044	0.0664	411.2478
Total		**333.8855**	**2.7044**	**0.0664**	**411.2478**

0 Waste Detail

1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.1360	4.0267	0.0000	152.6971
Unmitigated	68.1360	4.0267	0.0000	152.6971

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Total	**0.1570**	**1.7104**	**0.4225**	**0.0136**		**0.0610**	**0.0610**		**0.0610**	**0.0610**	**0.0000**	**122.7983**	**122.7983**	**0.0128**	**0.0000**	**123.0660**

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

10.0 Vegetation

2005 BAU High Cube- Passenger Cars

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2005
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Project Characteristics -

Land Use - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Area Coating -

Energy Use - Using historical data

Water And Wastewater -

Solid Waste -

Area Mitigation -

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00

tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	LDA	0.50	1.00
tblVehicleEF	LDA	0.50	1.00
tblVehicleEF	LDA	0.50	1.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LHD1	0.02	0.00
tblVehicleEF	LHD1	0.02	0.00
tblVehicleEF	LHD1	0.02	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00

tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Energy	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	402.7928	402.7928	0.0172	4.2500e-003	404.4731
Mobile	0.7865	1.0132	11.3949	0.0100	0.7705	0.0256	0.7961	0.1965	0.0255	0.2220	0.0000	914.0059	914.0059	0.0951	0.0000	916.0020
Offroad	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	307.6883	333.8855	2.7048	0.0665	411.2896
Total	**3.0886**	**2.7677**	**11.8650**	**0.0239**	**0.7705**	**0.0900**	**0.8604**	**0.1965**	**0.0899**	**0.2864**	**94.3331**	**1,747.3016**	**1,841.6347**	**6.8567**	**0.0707**	**2,007.5455**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Energy	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	402.7928	402.7928	0.0172	4.2500e-003	404.4731
Mobile	0.7865	1.0132	11.3949	0.0100	0.7705	0.0256	0.7961	0.1965	0.0255	0.2220	0.0000	914.0059	914.0059	0.0951	0.0000	916.0020
Offroad	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	307.6883	333.8855	2.7044	0.0664	411.2478
Total	**3.0886**	**2.7677**	**11.8650**	**0.0239**	**0.7705**	**0.0900**	**0.8604**	**0.1965**	**0.0899**	**0.2864**	**94.3331**	**1,747.3016**	**1,841.6347**	**6.8562**	**0.0706**	**2,007.5037**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**5.08**	**61.80**	**3.56**	**56.92**	**0.00**	**67.79**	**7.09**	**0.00**	**67.85**	**21.29**	**0.00**	**7.03**	**6.67**	**0.19**	**0.14**	**6.13**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

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E.2.r

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	0.7865	1.0132	11.3949	0.0100	0.7705	0.0256	0.7961	0.1965	0.0255	0.2220	0.0000	914.0059	914.0059	0.0951	0.0000	916.0020
Mitigated	0.7865	1.0132	11.3949	0.0100	0.7705	0.0256	0.7961	0.1965	0.0255	0.2220	0.0000	914.0059	914.0059	0.0951	0.0000	916.0020

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	371.36	371.36	371.36	2,243,925	2,243,925
Total	371.36	371.36	371.36	2,243,925	2,243,925

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	354.9644	354.9644	0.0163	3.3800e-003	356.3536
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	354.9644	354.9644	0.0163	3.3800e-003	356.3536
NaturalGas Mitigated	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	896271	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.8300e-003**	**0.0439**	**0.0369**	**2.6000e-004**		**3.3400e-003**	**3.3400e-003**		**3.3400e-003**	**3.3400e-003**	**0.0000**	**47.8284**	**47.8284**	**9.2000e-004**	**8.8000e-004**	**48.1195**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	896271	4.8300e-003	0.0439	0.0369	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003	0.0000	47.8284	47.8284	9.2000e-004	8.8000e-004	48.1195
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.8300e-003**	**0.0439**	**0.0369**	**2.6000e-004**		**3.3400e-003**	**3.3400e-003**		**3.3400e-003**	**3.3400e-003**	**0.0000**	**47.8284**	**47.8284**	**9.2000e-004**	**8.8000e-004**	**48.1195**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	30.0178	1.3800e-003	2.9000e-004	30.1352
Unrefrigerated Warehouse-No Rail	1.13551e+006	324.9466	0.0149	3.0900e-003	326.2183
Total		**354.9644**	**0.0163**	**3.3800e-003**	**356.3536**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	30.0178	1.3800e-003	2.9000e-004	30.1352
Unrefrigerated Warehouse-No Rail	1.13551e+006	324.9466	0.0149	3.0900e-003	326.2183
Total		**354.9644**	**0.0163**	**3.3800e-003**	**356.3536**

0 Area Detail

1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Mitigated	2.1403	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3800e-003	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Total	**2.1403**	**1.3000e-004**	**0.0106**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**8.0000e-005**	**0.0000**	**0.0179**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3800e-003	1.3000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0163	0.0163	8.0000e-005	0.0000	0.0179
Total	**2.1403**	**1.3000e-004**	**0.0106**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**8.0000e-005**	**0.0000**	**0.0179**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	333.8855	2.7048	0.0665	411.2896
Mitigated	333.8855	2.7044	0.0664	411.2478

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	82.5747 / 0	333.8855	2.7048	0.0665	411.2896
Total		**333.8855**	**2.7048**	**0.0665**	**411.2896**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	82.5747 / 0	333.8855	2.7044	0.0664	411.2478
Total		**333.8855**	**2.7044**	**0.0664**	**411.2478**

0 Waste Detail

1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.1360	4.0267	0.0000	152.6971
Unmitigated	68.1360	4.0267	0.0000	152.6971

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Total	**0.1570**	**1.7104**	**0.4225**	**0.0136**		**0.0610**	**0.0610**		**0.0610**	**0.0610**	**0.0000**	**122.7983**	**122.7983**	**0.0128**	**0.0000**	**123.0660**

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

10.0 Vegetation

2005 BAU Warehouse- Trucks

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2005
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Area Coating -

Energy Use - Using historical data

Area Mitigation -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblVehicleEF	HHD	0.02	0.51
tblVehicleEF	HHD	0.02	0.51
tblVehicleEF	HHD	0.02	0.51
tblVehicleEF	LDA	0.50	0.00
tblVehicleEF	LDA	0.50	0.00
tblVehicleEF	LDA	0.50	0.00

tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LHD1	0.02	0.16
tblVehicleEF	LHD1	0.02	0.16
tblVehicleEF	LHD1	0.02	0.16
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00

tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	1.48
tblVehicleTrips	SU_TR	0.62	1.48
tblVehicleTrips	WD_TR	3.82	1.48

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Energy	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	463.4456	463.4456	0.0170	5.8300e-003	465.6100
Mobile	3.7781	47.7302	27.2775	0.3459	1.0636	1.9662	3.0298	0.2771	1.8111	2.0881	0.0000	4,319.2479	4,319.2479	0.1728	0.0000	4,322.8759
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	76.9221	83.4714	0.6762	0.0166	102.8224
Total	**4.3288**	**47.8786**	**27.4047**	**0.3467**	**1.0636**	**1.9775**	**3.0411**	**0.2771**	**1.8223**	**2.0994**	**29.0184**	**4,859.6196**	**4,888.6379**	**2.1939**	**0.0224**	**4,941.6673**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Energy	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	463.4456	463.4456	0.0170	5.8300e-003	465.6100
Mobile	3.7781	47.7302	27.2775	0.3459	1.0636	1.9662	3.0298	0.2771	1.8111	2.0881	0.0000	4,319.2479	4,319.2479	0.1728	0.0000	4,322.8759
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	76.9221	83.4714	0.6761	0.0166	102.8120
Total	**4.3288**	**47.8786**	**27.4047**	**0.3467**	**1.0636**	**1.9775**	**3.0411**	**0.2771**	**1.8223**	**2.0994**	**29.0184**	**4,859.6196**	**4,888.6379**	**2.1937**	**0.0224**	**4,941.6569**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.09**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

0 Operational Detail - Mobile

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.7781	47.7302	27.2775	0.3459	1.0636	1.9662	3.0298	0.2771	1.8111	2.0881	0.0000	4,319.2479	4,319.2479	0.1728	0.0000	4,322.8759
Unmitigated	3.7781	47.7302	27.2775	0.3459	1.0636	1.9662	3.0298	0.2771	1.8111	2.0881	0.0000	4,319.2479	4,319.2479	0.1728	0.0000	4,322.8759

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	132.12	132.12	132.12	2,933,584	2,933,584
Parking Lot	0.00	0.00	0.00		
Total	132.12	132.12	132.12	2,933,584	2,933,584

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	61.00	8.40	6.90	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.157600	0.000000	0.328200	0.514200	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	302.0008	302.0008	0.0139	2.8700e-003	303.1827
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	302.0008	302.0008	0.0139	2.8700e-003	303.1827
NaturalGas Mitigated	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273
NaturalGas Unmitigated	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	3.02536e+006	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0163**	**0.1483**	**0.1246**	**8.9000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**161.4448**	**161.4448**	**3.0900e-003**	**2.9600e-003**	**162.4273**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	3.02536e+006	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0163**	**0.1483**	**0.1246**	**8.9000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**161.4448**	**161.4448**	**3.0900e-003**	**2.9600e-003**	**162.4273**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	1.02928e+006	294.5467	0.0135	2.8000e-003	295.6995
Parking Lot	26048	7.4541	3.4000e-004	7.0000e-005	7.4833
Total		**302.0008**	**0.0139**	**2.8700e-003**	**303.1827**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	1.02928e+006	294.5467	0.0135	2.8000e-003	295.6995
Parking Lot	26048	7.4541	3.4000e-004	7.0000e-005	7.4833
Total		**302.0008**	**0.0139**	**2.8700e-003**	**303.1827**

0 Area Detail

1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Unmitigated	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Total	**0.5344**	**3.0000e-005**	**2.6500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**2.0000e-005**	**0.0000**	**4.4500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Total	**0.5344**	**3.0000e-005**	**2.6500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**2.0000e-005**	**0.0000**	**4.4500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	83.4714	0.6761	0.0166	102.8120
Unmitigated	83.4714	0.6762	0.0166	102.8224

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	83.4714	0.6762	0.0166	102.8224
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**83.4714**	**0.6762**	**0.0166**	**102.8224**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	83.4714	0.6761	0.0166	102.8120
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**83.4714**	**0.6761**	**0.0166**	**102.8120**

0 Waste Detail

1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	22.4691	1.3279	0.0000	50.3546
Mitigated	22.4691	1.3279	0.0000	50.3546

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

2005 BAU Manufacturing- Passenger Cars

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2005
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Project Characteristics -

Land Use - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces. Parking represents ratio of total parking

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Area Coating -

Energy Use - Using Historical data

Area Mitigation - n

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2005
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	HHD	0.02	0.00
tblVehicleEF	LDA	0.50	1.00
tblVehicleEF	LDA	0.50	1.00
tblVehicleEF	LDA	0.50	1.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT1	0.08	0.00
tblVehicleEF	LDT2	0.23	0.00

tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LHD1	0.02	0.00
tblVehicleEF	LHD1	0.02	0.00
tblVehicleEF	LHD1	0.02	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	LHD2	6.7800e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MCY	5.6020e-003	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MDV	0.11	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MH	2.3120e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	OBUS	1.1540e-003	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	SBUS	7.9800e-004	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleEF	UBUS	1.5680e-003	0.00

tblVehicleEF	UBUS	1.5680e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	2.34
tblVehicleTrips	SU_TR	0.62	2.34
tblVehicleTrips	WD_TR	3.82	2.34

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Energy	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	463.4456	463.4456	0.0170	5.8300e-003	465.6100
Mobile	0.4424	0.5699	6.4097	5.6300e-003	0.4334	0.0144	0.4478	0.1105	0.0144	0.1249	0.0000	514.1283	514.1283	0.0535	0.0000	515.2511
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	76.9221	83.4714	0.6762	0.0166	102.8224
Total	**0.9930**	**0.7183**	**6.5369**	**6.5200e-003**	**0.4334**	**0.0257**	**0.4591**	**0.1105**	**0.0256**	**0.1362**	**29.0184**	**1,054.5000**	**1,083.5184**	**2.0746**	**0.0224**	**1,134.0426**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Energy	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	463.4456	463.4456	0.0170	5.8300e-003	465.6100
Mobile	0.4424	0.5699	6.4097	5.6300e-003	0.4334	0.0144	0.4478	0.1105	0.0144	0.1249	0.0000	514.1283	514.1283	0.0535	0.0000	515.2511
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	76.9221	83.4714	0.6761	0.0166	102.8120
Total	**0.9930**	**0.7183**	**6.5369**	**6.5200e-003**	**0.4334**	**0.0257**	**0.4591**	**0.1105**	**0.0256**	**0.1362**	**29.0184**	**1,054.5000**	**1,083.5184**	**2.0744**	**0.0224**	**1,134.0321**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.09**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4424	0.5699	6.4097	5.6300e-003	0.4334	0.0144	0.4478	0.1105	0.0144	0.1249	0.0000	514.1283	514.1283	0.0535	0.0000	515.2511
Unmitigated	0.4424	0.5699	6.4097	5.6300e-003	0.4334	0.0144	0.4478	0.1105	0.0144	0.1249	0.0000	514.1283	514.1283	0.0535	0.0000	515.2511

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	208.89	208.89	208.89	1,262,208	1,262,208
Parking Lot	0.00	0.00	0.00		
Total	208.89	208.89	208.89	1,262,208	1,262,208

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	302.0008	302.0008	0.0139	2.8700e-003	303.1827
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	302.0008	302.0008	0.0139	2.8700e-003	303.1827
NaturalGas Mitigated	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273
NaturalGas Unmitigated	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	3.02536e+006	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0163**	**0.1483**	**0.1246**	**8.9000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**161.4448**	**161.4448**	**3.0900e-003**	**2.9600e-003**	**162.4273**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	3.02536e+006	0.0163	0.1483	0.1246	8.9000e-004		0.0113	0.0113		0.0113	0.0113	0.0000	161.4448	161.4448	3.0900e-003	2.9600e-003	162.4273
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0163**	**0.1483**	**0.1246**	**8.9000e-004**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**161.4448**	**161.4448**	**3.0900e-003**	**2.9600e-003**	**162.4273**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	1.02928e+006	294.5467	0.0135	2.8000e-003	295.6995
Parking Lot	26048	7.4541	3.4000e-004	7.0000e-005	7.4833
Total		**302.0008**	**0.0139**	**2.8700e-003**	**303.1827**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	1.02928e+006	294.5467	0.0135	2.8000e-003	295.6995
Parking Lot	26048	7.4541	3.4000e-004	7.0000e-005	7.4833
Total		**302.0008**	**0.0139**	**2.8700e-003**	**303.1827**

0 Area Detail

1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Unmitigated	0.5344	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Total	**0.5344**	**3.0000e-005**	**2.6500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**2.0000e-005**	**0.0000**	**4.4500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	2.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	2.0000e-005	0.0000	4.4500e-003
Total	**0.5344**	**3.0000e-005**	**2.6500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**2.0000e-005**	**0.0000**	**4.4500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	83.4714	0.6761	0.0166	102.8120
Unmitigated	83.4714	0.6762	0.0166	102.8224

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	83.4714	0.6762	0.0166	102.8224
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**83.4714**	**0.6762**	**0.0166**	**102.8224**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	83.4714	0.6761	0.0166	102.8120
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**83.4714**	**0.6761**	**0.0166**	**102.8120**

0 Waste Detail

1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	22.4691	1.3279	0.0000	50.3546
Mitigated	22.4691	1.3279	0.0000	50.3546

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

2020 Project High Cube- Trucks

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater -

Solid Waste -

Mobile Land Use Mitigation -

Area Mitigation - Based on updated Rule 1113- All flat, nonflat, default coatings shall be no more than 50 g/L low VOC level

Energy Mitigation - PV system to serve office area (80% of total project kWh)

Water Mitigation -

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	2.11	1.76
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD1	0.04	0.22
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00

tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	MHD	0.02	0.18
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1397	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	277.1488	277.1488	0.0158	3.7500e-003	278.6416
Mobile	1.1583	17.8372	11.0863	0.0719	2.1526	0.3456	2.4982	0.5970	0.3180	0.9150	0.0000	6,112.5745	6,112.5745	0.0503	0.0000	6,113.6299
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	227.7144	253.9116	2.7048	0.0665	331.3157
Total	**3.3552**	**18.5207**	**11.4059**	**0.0732**	**2.1526**	**0.3694**	**2.5220**	**0.5970**	**0.3401**	**0.9371**	**94.3331**	**6,719.1196**	**6,813.4527**	**6.8305**	**0.0702**	**6,978.6575**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.8054	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	246.9805	246.9805	0.0140	3.3500e-003	248.3124
Mobile	1.1386	17.4912	10.9345	0.0704	2.1095	0.3387	2.4482	0.5851	0.3116	0.8967	0.0000	5,991.1028	5,991.1028	0.0493	0.0000	5,992.1378
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	20.9577	175.8487	196.8064	2.1635	0.0531	258.6963
Total	**3.0009**	**18.1733**	**11.2528**	**0.0718**	**2.1095**	**0.3624**	**2.4719**	**0.5851**	**0.3336**	**0.9187**	**89.0937**	**6,515.6138**	**6,604.7075**	**6.2864**	**0.0564**	**6,754.2168**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**12.16**	**5.40**	**3.84**	**3.54**	**2.00**	**7.69**	**2.83**	**2.00**	**7.69**	**4.06**	**5.55**	**4.54**	**4.56**	**8.45**	**19.61**	**4.68**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

0 Operational Detail - Mobile

Packet Pg. 4286

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.r

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	1.1583	17.8372	11.0863	0.0719	2.1526	0.3456	2.4982	0.5970	0.3180	0.9150	0.0000	6,112.5745	6,112.5745	0.0503	0.0000	6,113.6299
Mitigated	1.1386	17.4912	10.9345	0.0704	2.1095	0.3387	2.4482	0.5851	0.3116	0.8967	0.0000	5,991.1028	5,991.1028	0.0493	0.0000	5,992.1378

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	228.53	228.53	228.53	5,074,307	4,972,821
Total	228.53	228.53	228.53	5,074,307	4,972,821

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.220300	0.000000	0.176600	0.603100	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	214.5487	214.5487	0.0133	2.7600e-003	215.6832
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	243.0401	243.0401	0.0151	3.1200e-003	244.3253
NaturalGas Mitigated	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	639173	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.4500e-003**	**0.0313**	**0.0263**	**1.9000e-004**		**2.3800e-003**	**2.3800e-003**		**2.3800e-003**	**2.3800e-003**	**0.0000**	**34.1087**	**34.1087**	**6.5000e-004**	**6.3000e-004**	**34.3163**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	607750	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.2800e-003**	**0.0298**	**0.0250**	**1.8000e-004**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**32.4319**	**32.4319**	**6.2000e-004**	**5.9000e-004**	**32.6292**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	22.2156	1.3800e-003	2.9000e-004	22.3331
Unrefrigerated Warehouse-No Rail	1.04267e+006	220.8245	0.0137	2.8400e-003	221.9922
Total		**243.0401**	**0.0151**	**3.1300e-003**	**244.3253**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	40756	8.6316	5.4000e-004	1.1000e-004	8.6772
Unrefrigerated Warehouse-No Rail	972285	205.9171	0.0128	2.6500e-003	207.0060
Total		**214.5487**	**0.0133**	**2.7600e-003**	**215.6832**

0 Area Detail

1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.1397	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Mitigated	1.8054	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**2.1397**	**8.0000e-005**	**8.4100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0836					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**1.8054**	**8.0000e-005**	**8.4100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	253.9116	2.7048	0.0665	331.3157
Mitigated	196.8064	2.1635	0.0531	258.6963

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	82.5747 / 0	253.9116	2.7048	0.0665	331.3157
Total		**253.9116**	**2.7048**	**0.0665**	**331.3157**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	66.0598 / 0	196.8064	2.1635	0.0531	258.6963
Total		**196.8064**	**2.1635**	**0.0531**	**258.6963**

0 Waste Detail

1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.1360	4.0267	0.0000	152.6971
Unmitigated	68.1360	4.0267	0.0000	152.6971

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Total	**0.0537**	**0.6521**	**0.2849**	**1.1600e-003**		**0.0214**	**0.0214**		**0.0197**	**0.0197**	**0.0000**	**101.6656**	**101.6656**	**0.0329**	**0.0000**	**102.3561**

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

10.0 Vegetation

2020 Project High Cube- Passenger Cars

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	357.08	1000sqft	8.20	357,080.00	0
Parking Lot	298.00	Space	2.68	119,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater -

Solid Waste -

Mobile Land Use Mitigation -

Area Mitigation - Based on updated Rule 1113- all flat, nonflat, default coatings shall be no more than 50 g/L low VOC level

Energy Mitigation - PV system to serve office areas (80% of total project kWh)

Water Mitigation -

Operational Off-Road Equipment - All yard trucks shall be non-diesel

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	2.11	1.76
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00

tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1397	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	277.1488	277.1488	0.0158	3.7500e-003	278.6416
Mobile	0.1116	0.1890	2.1139	9.0000e-003	0.8366	5.2700e-003	0.8419	0.2221	4.8900e-003	0.2270	0.0000	564.5341	564.5341	0.0231	0.0000	565.0196
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	26.1972	227.7144	253.9116	2.7048	0.0665	331.3157
Total	**2.3084**	**0.8725**	**2.4334**	**0.0104**	**0.8366**	**0.0291**	**0.8657**	**0.2221**	**0.0270**	**0.2491**	**94.3331**	**1,171.0792**	**1,265.4123**	**6.8034**	**0.0702**	**1,430.0472**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.8054	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Energy	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	246.9805	246.9805	0.0140	3.3500e-003	248.3124
Mobile	0.1108	0.1854	2.0757	8.8200e-003	0.8199	5.1700e-003	0.8251	0.2177	4.8000e-003	0.2224	0.0000	553.3861	553.3861	0.0227	0.0000	553.8622
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	68.1360	0.0000	68.1360	4.0267	0.0000	152.6971
Water						0.0000	0.0000		0.0000	0.0000	20.9577	175.8487	196.8064	2.1635	0.0531	258.6963
Total	**1.9732**	**0.8675**	**2.3940**	**0.0102**	**0.8199**	**0.0289**	**0.8487**	**0.2177**	**0.0268**	**0.2444**	**89.0937**	**1,077.8971**	**1,166.9908**	**6.2597**	**0.0564**	**1,315.9412**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**16.85**	**75.32**	**13.33**	**13.04**	**2.00**	**74.34**	**4.43**	**2.00**	**73.72**	**9.77**	**5.55**	**16.64**	**15.81**	**8.47**	**19.61**	**15.14**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

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E.2.r

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	0.1116	0.1890	2.1139	9.0000e-003	0.8366	5.2700e-003	0.8419	0.2221	4.8900e-003	0.2270	0.0000	564.5341	564.5341	0.0231	0.0000	565.0196
Mitigated	0.1108	0.1854	2.0757	8.8200e-003	0.8199	5.1700e-003	0.8251	0.2177	4.8000e-003	0.2224	0.0000	553.3861	553.3861	0.0227	0.0000	553.8622

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	371.36	371.36	371.36	2,243,925	2,199,046
Total	371.36	371.36	371.36	2,243,925	2,199,046

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	214.5487	214.5487	0.0133	2.7600e-003	215.6832
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	243.0401	243.0401	0.0151	3.1200e-003	244.3253
NaturalGas Mitigated	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	639173	3.4500e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.1087	34.1087	6.5000e-004	6.3000e-004	34.3163
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.4500e-003**	**0.0313**	**0.0263**	**1.9000e-004**		**2.3800e-003**	**2.3800e-003**		**2.3800e-003**	**2.3800e-003**	**0.0000**	**34.1087**	**34.1087**	**6.5000e-004**	**6.3000e-004**	**34.3163**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	607750	3.2800e-003	0.0298	0.0250	1.8000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	32.4319	32.4319	6.2000e-004	5.9000e-004	32.6292
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.2800e-003**	**0.0298**	**0.0250**	**1.8000e-004**		**2.2600e-003**	**2.2600e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**32.4319**	**32.4319**	**6.2000e-004**	**5.9000e-004**	**32.6292**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	104896	22.2156	1.3800e-003	2.9000e-004	22.3331
Unrefrigerated Warehouse-No Rail	1.04267e+006	220.8245	0.0137	2.8400e-003	221.9922
Total		**243.0401**	**0.0151**	**3.1300e-003**	**244.3253**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	40756	8.6316	5.4000e-004	1.1000e-004	8.6772
Unrefrigerated Warehouse-No Rail	972285	205.9171	0.0128	2.6500e-003	207.0060
Total		**214.5487**	**0.0133**	**2.7600e-003**	**215.6832**

0 Area Detail

1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.1397	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Mitigated	1.8054	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4179					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**2.1397**	**8.0000e-005**	**8.4100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0836					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.9000e-004	8.0000e-005	8.4100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0163	0.0163	4.0000e-005	0.0000	0.0172
Total	**1.8054**	**8.0000e-005**	**8.4100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**4.0000e-005**	**0.0000**	**0.0172**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	253.9116	2.7048	0.0665	331.3157
Mitigated	196.8064	2.1635	0.0531	258.6963

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	82.5747 / 0	253.9116	2.7048	0.0665	331.3157
Total		**253.9116**	**2.7048**	**0.0665**	**331.3157**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	66.0598 / 0	196.8064	2.1635	0.0531	258.6963
Total		**196.8064**	**2.1635**	**0.0531**	**258.6963**

0 Waste Detail

1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	68.1360	4.0267	0.0000	152.6971
Unmitigated	68.1360	4.0267	0.0000	152.6971

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	335.66	68.1360	4.0267	0.0000	152.6971
Total		**68.1360**	**4.0267**	**0.0000**	**152.6971**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/Backhoes	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Total	**0.0537**	**0.6521**	**0.2849**	**1.1600e-003**		**0.0214**	**0.0214**		**0.0197**	**0.0197**	**0.0000**	**101.6656**	**101.6656**	**0.0329**	**0.0000**	**102.3561**

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

10.0 Vegetation

Warehouse- Trucks

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total lot acreage: 19.6437; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces.

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Vechicle Emission Factors - Trucks only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Area Mitigation - Based on updated Rule 1113- all flat, nonflat, default coatings shall have 50 g/L low VOC levels

Mobile Land Use Mitigation -

Energy Mitigation - PV system to serve office areas (20% of total project kWh)

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	WorkerTripNumber	8.00	0.00

tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	HHD	0.03	0.51
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDA	0.51	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD1	0.04	0.16
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MHD	0.02	0.33

tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	MHD	0.02	0.33
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	1.48
tblVehicleTrips	SU_TR	0.62	1.48
tblVehicleTrips	WD_TR	3.82	1.48

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5342	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Energy	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	349.3303	349.3303	0.0154	5.2900e-003	351.2938
Mobile	0.6308	9.6937	5.9050	0.0405	1.2669	0.1947	1.4616	0.3559	0.1792	0.5350	0.0000	3,447.4656	3,447.4656	0.0256	0.0000	3,448.0041
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	56.9286	63.4779	0.6762	0.0166	82.8289
Total	**1.1797**	**9.8275**	**6.0195**	**0.0413**	**1.2669**	**0.2049**	**1.4718**	**0.3559**	**0.1893**	**0.5452**	**29.0184**	**3,853.7285**	**3,882.7469**	**2.0452**	**0.0219**	**3,932.4857**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4506	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Energy	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	337.3495	337.3495	0.0148	5.1200e-003	339.2471
Mobile	0.6202	9.5063	5.8243	0.0397	1.2416	0.1909	1.4324	0.3488	0.1756	0.5244	0.0000	3,379.0052	3,379.0052	0.0252	0.0000	3,379.5333
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	5.2394	43.9622	49.2016	0.5409	0.0133	64.6741
Total	**1.0852**	**9.6372**	**5.9363**	**0.0405**	**1.2416**	**0.2008**	**1.4424**	**0.3488**	**0.1856**	**0.5343**	**27.7085**	**3,760.3210**	**3,788.0295**	**1.9087**	**0.0184**	**3,833.8134**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**8.01**	**1.94**	**1.38**	**1.98**	**2.00**	**2.01**	**2.00**	**2.00**	**2.00**	**2.00**	**4.51**	**2.42**	**2.44**	**6.67**	**16.03**	**2.51**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6202	9.5063	5.8243	0.0397	1.2416	0.1909	1.4324	0.3488	0.1756	0.5244	0.0000	3,379.0052	3,379.0052	0.0252	0.0000	3,379.5333
Unmitigated	0.6308	9.6937	5.9050	0.0405	1.2669	0.1947	1.4616	0.3559	0.1792	0.5350	0.0000	3,447.4656	3,447.4656	0.0256	0.0000	3,448.0041

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	132.12	132.12	132.12	2,933,584	2,874,912
Parking Lot	0.00	0.00	0.00		
Total	132.12	132.12	132.12	2,933,584	2,874,912

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	61.00	8.40	6.90	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.157600	0.000000	0.328200	0.514200	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	194.8765	194.8765	0.0121	2.5000e-003	195.9070
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	203.6537	203.6537	0.0127	2.6200e-003	204.7306
NaturalGas Mitigated	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
NaturalGas Unmitigated	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	2.72988e+006	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0147**	**0.1338**	**0.1124**	**8.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**145.6766**	**145.6766**	**2.7900e-003**	**2.6700e-003**	**146.5632**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	2.66984e+006	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0144**	**0.1309**	**0.1099**	**7.9000e-004**		**9.9500e-003**	**9.9500e-003**		**9.9500e-003**	**9.9500e-003**	**0.0000**	**142.4730**	**142.4730**	**2.7300e-003**	**2.6100e-003**	**143.3400**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	935550	198.1371	0.0123	2.5500e-003	199.1848
Parking Lot	26048	5.5166	3.4000e-004	7.0000e-005	5.5458
Total		**203.6537**	**0.0127**	**2.6200e-003**	**204.7306**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	910141	192.7559	0.0120	2.4800e-003	193.7752
Parking Lot	10013	2.1206	1.3000e-004	3.0000e-005	2.1318
Total		**194.8765**	**0.0121**	**2.5100e-003**	**195.9070**

0 Area Detail

1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4506	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Unmitigated	0.5342	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Total	**0.5342**	**2.0000e-005**	**2.1000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2800e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Total	**0.4506**	**2.0000e-005**	**2.1000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	49.2016	0.5409	0.0133	64.6741
Unmitigated	63.4779	0.6762	0.0166	82.8289

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	63.4779	0.6762	0.0166	82.8289
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**63.4779**	**0.6762**	**0.0166**	**82.8289**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	16.5149 / 0	49.2016	0.5409	0.0133	64.6741
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**49.2016**	**0.5409**	**0.0133**	**64.6741**

0 Waste Detail

1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	22.4691	1.3279	0.0000	50.3546
Mitigated	22.4691	1.3279	0.0000	50.3546

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Manufacturing- Passenger Cars

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	89.27	1000sqft	2.05	89,270.00	0
Parking Lot	74.00	Space	0.67	29,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking= 3.27 parking spaces. Parking represents ratio of total parking

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Vehicle Trips - Trip rates based on traffic study

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Vechicle Emission Factors - Passenger Cars Only

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Area Mitigation - Based on updated Rule 1113-all flat, nonflat, default coatings shall have 50 g/L low VOC levels

Energy Mitigation - PV system to serve office areas (20% of total project kWh)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	50
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	WorkerTripNumber	8.00	0.00

tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDA	0.51	1.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT1	0.06	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD1	0.04	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	LHD2	6.6920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MCY	4.3920e-003	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MDV	0.14	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MH	2.1400e-003	0.00
tblVehicleEF	MHD	0.02	0.00

tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	MHD	0.02	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	OBUS	1.9430e-003	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	SBUS	5.7600e-004	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleEF	UBUS	2.4910e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.49	2.34
tblVehicleTrips	SU_TR	0.62	2.34
tblVehicleTrips	WD_TR	3.82	2.34

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	4.8000e-004	4.5700e-003	3.5900e-003	0.0000	0.0000	3.4000e-004	3.4000e-004	0.0000	3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**	**0.0000**	**3.4000e-004**	**3.4000e-004**	**0.0000**	**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5342	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Energy	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	349.3303	349.3303	0.0154	5.2900e-003	351.2938
Mobile	0.0628	0.1063	1.1891	5.0600e-003	0.4706	2.9600e-003	0.4736	0.1249	2.7500e-003	0.1277	0.0000	317.5504	317.5504	0.0130	0.0000	317.8235
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	6.5493	56.9286	63.4779	0.6762	0.0166	82.8289
Total	**0.6117**	**0.2401**	**1.3036**	**5.8600e-003**	**0.4706**	**0.0131**	**0.4837**	**0.1249**	**0.0129**	**0.1379**	**29.0184**	**723.8134**	**752.8317**	**2.0326**	**0.0219**	**802.3051**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4506	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Energy	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	337.3495	337.3495	0.0148	5.1200e-003	339.2471
Mobile	0.0623	0.1043	1.1676	4.9600e-003	0.4612	2.9100e-003	0.4641	0.1224	2.7000e-003	0.1251	0.0000	311.2797	311.2797	0.0128	0.0000	311.5475
Waste						0.0000	0.0000		0.0000	0.0000	22.4691	0.0000	22.4691	1.3279	0.0000	50.3546
Water						0.0000	0.0000		0.0000	0.0000	5.2394	43.9622	49.2016	0.5409	0.0133	64.6741
Total	**0.5274**	**0.2352**	**1.2796**	**5.7500e-003**	**0.4612**	**0.0129**	**0.4741**	**0.1224**	**0.0127**	**0.1351**	**27.7085**	**692.5954**	**720.3039**	**1.8963**	**0.0184**	**765.8275**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**13.78**	**2.05**	**1.84**	**1.88**	**2.00**	**2.05**	**2.00**	**1.99**	**2.09**	**2.01**	**4.51**	**4.31**	**4.32**	**6.70**	**16.03**	**4.55**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
	Demolition	Demolition	1/1/2017	1/2/2017	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8000e-004	4.5700e-003	3.5900e-003	0.0000		3.4000e-004	3.4000e-004		3.2000e-004	3.2000e-004	0.0000	0.4331	0.4331	1.3000e-004	0.0000	0.4359
Total	**4.8000e-004**	**4.5700e-003**	**3.5900e-003**	**0.0000**		**3.4000e-004**	**3.4000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.4331**	**0.4331**	**1.3000e-004**	**0.0000**	**0.4359**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

0 Operational Detail - Mobile

Attachment: Appendix D - GHG GCC Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0623	0.1043	1.1676	4.9600e-003	0.4612	2.9100e-003	0.4641	0.1224	2.7000e-003	0.1251	0.0000	311.2797	311.2797	0.0128	0.0000	311.5475
Unmitigated	0.0628	0.1063	1.1891	5.0600e-003	0.4706	2.9600e-003	0.4736	0.1249	2.7500e-003	0.1277	0.0000	317.5504	317.5504	0.0130	0.0000	317.8235

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	208.89	208.89	208.89	1,262,208	1,236,964
Parking Lot	0.00	0.00	0.00		
Total	208.89	208.89	208.89	1,262,208	1,236,964

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	100.00	0.00	0.00	100	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	194.8765	194.8765	0.0121	2.5000e-003	195.9070
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	203.6537	203.6537	0.0127	2.6200e-003	204.7306
NaturalGas Mitigated	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
NaturalGas Unmitigated	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	2.72988e+006	0.0147	0.1338	0.1124	8.0000e-004		0.0102	0.0102		0.0102	0.0102	0.0000	145.6766	145.6766	2.7900e-003	2.6700e-003	146.5632
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0147**	**0.1338**	**0.1124**	**8.0000e-004**		**0.0102**	**0.0102**		**0.0102**	**0.0102**	**0.0000**	**145.6766**	**145.6766**	**2.7900e-003**	**2.6700e-003**	**146.5632**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Manufacturing	2.66984e+006	0.0144	0.1309	0.1099	7.9000e-004		9.9500e-003	9.9500e-003		9.9500e-003	9.9500e-003	0.0000	142.4730	142.4730	2.7300e-003	2.6100e-003	143.3400
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0144**	**0.1309**	**0.1099**	**7.9000e-004**		**9.9500e-003**	**9.9500e-003**		**9.9500e-003**	**9.9500e-003**	**0.0000**	**142.4730**	**142.4730**	**2.7300e-003**	**2.6100e-003**	**143.3400**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	935550	198.1371	0.0123	2.5500e-003	199.1848
Parking Lot	26048	5.5166	3.4000e-004	7.0000e-005	5.5458
Total		**203.6537**	**0.0127**	**2.6200e-003**	**204.7306**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	910141	192.7559	0.0120	2.4800e-003	193.7752
Parking Lot	10013	2.1206	1.3000e-004	3.0000e-005	2.1318
Total		**194.8765**	**0.0121**	**2.5100e-003**	**195.9070**

0 Area Detail

1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4506	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Unmitigated	0.5342	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1045					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Total	**0.5342**	**2.0000e-005**	**2.1000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2800e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4295					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-004	2.0000e-005	2.1000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0500e-003	4.0500e-003	1.0000e-005	0.0000	4.2800e-003
Total	**0.4506**	**2.0000e-005**	**2.1000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.0500e-003**	**4.0500e-003**	**1.0000e-005**	**0.0000**	**4.2800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	49.2016	0.5409	0.0133	64.6741
Unmitigated	63.4779	0.6762	0.0166	82.8289

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	20.6437 / 0	63.4779	0.6762	0.0166	82.8289
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**63.4779**	**0.6762**	**0.0166**	**82.8289**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	16.5149 / 0	49.2016	0.5409	0.0133	64.6741
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**49.2016**	**0.5409**	**0.0133**	**64.6741**

0 Waste Detail

1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	22.4691	1.3279	0.0000	50.3546
Mitigated	22.4691	1.3279	0.0000	50.3546

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	110.69	22.4691	1.3279	0.0000	50.3546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**22.4691**	**1.3279**	**0.0000**	**50.3546**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

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Indian Street Commerce Center

NOISE IMPACT ANALYSIS

CITY OF MORENO VALLEY

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JUNE 23, 2016

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
AICUZ	Air Installation Compatible Use Zone Study
ALUCP	Airport Land Use Compatibility Plan
ANSI	American National Standards Institute
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
I-215	Interstate 215
INCE	Institute of Noise Control Engineering
Leq	Equivalent continuous (average) sound level
Lmax	Maximum level measured over the time interval
Lmin	Minimum level measured over the time interval
MARB/IPA	March Air Reserve Base/Inland Port Airport
mph	Miles per hour
PPV	Peak particle velocity
Project	Indian Street Commerce Center
RCNM	Roadway Construction Noise Model
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
VdB	Vibration Decibels

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1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Indian Street Commerce Center ("Project"). This noise study briefly describes the proposed Project, provides information regarding noise fundamentals, describes the local regulatory setting, provides the study methods and procedures for traffic noise analysis, and evaluates the future exterior noise environment. In addition, this study includes an analysis of the potential Project-related long-term stationary/area-source and short-term construction noise impacts.

1.1 SITE LOCATION

The proposed Indian Street Commerce Center site is located at 17845 Indian Street in the City of Moreno Valley, as shown on Exhibit 1-A. Interstate 215 (I-215) Freeway is located approximately one mile west of the Project site. The March Air Reserve Base/Inland Port Airport (MARB/IPA) is located approximately one-half mile west of the Project site.

1.2 STUDY AREA

The Project site is currently vacant and is designated by the City of Moreno Valley General Plan Land Use Map, Figure 2-2, as Business Park/Light Industrial land use. (1) The properties adjacent to the Project site on all sides are also designated as Business Park/Light Industrial land use. Existing Open Space land use is located west of the Project site at the southern boundary of the MARB/IPA. The existing land uses are shown on Exhibit 1-B.

1.3 PROJECT DESCRIPTION

The Project is proposed to consist of approximately 446,350 square feet, of which 357,080 square feet would be allocated to high-cube warehouse/distribution center use and 89,270 square feet to manufacturing use within a single building. Supporting office uses would be also incorporated in the building design. Please refer to Exhibit 1-C. At the time this noise analysis was prepared the future tenants of the proposed Project were unknown. To present the potential worst-case noise conditions, this analysis assumes the Project would be operational 24 hours per day, seven days per week. Business operations would primarily be conducted within the enclosed buildings, with the exception of traffic movement, parking, and the loading and unloading of trucks at designated loading bays. The on-site Project-related noise sources are expected to include: idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods, and roof-top mechanical ventilation equipment. This noise analysis is intended to describe noise level impacts associated with the expected typical warehouse and distribution storage activities at the Project site.

The Project is anticipated to have an Opening Year of 2018. However, the City of Moreno Valley guidelines require the Opening Year to be a minimum of 5 years from baseline (2015) conditions, and therefore, the opening year traffic volumes presented in this analysis are consistent with the Opening Year 2020 volumes used in the *Indian Street Commerce Center Traffic Impact Analysis* prepared by Urban Crossroads, Inc. According to the *Indian Street Commerce Center Traffic Impact Analysis*, the Project is expected to generate a net total of approximately 940 trip-ends per day (actual vehicles) with 104 AM peak hour trips and 109 PM peak hour trips. (2) The net Project trip generation includes 360 truck trip-ends per day from the industrial land uses. While the traffic volumes presented in the *Indian Street Commerce Center Traffic Impact Analysis* are expressed as Passenger Car Equivalent (PCE) trips, the Indian Street Commerce Center Noise Impact Analysis relies on the net Project trips to accurately account for the effect of individual truck trips on the study area roadway network.

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EXHIBIT 1-A: LOCATION MAP

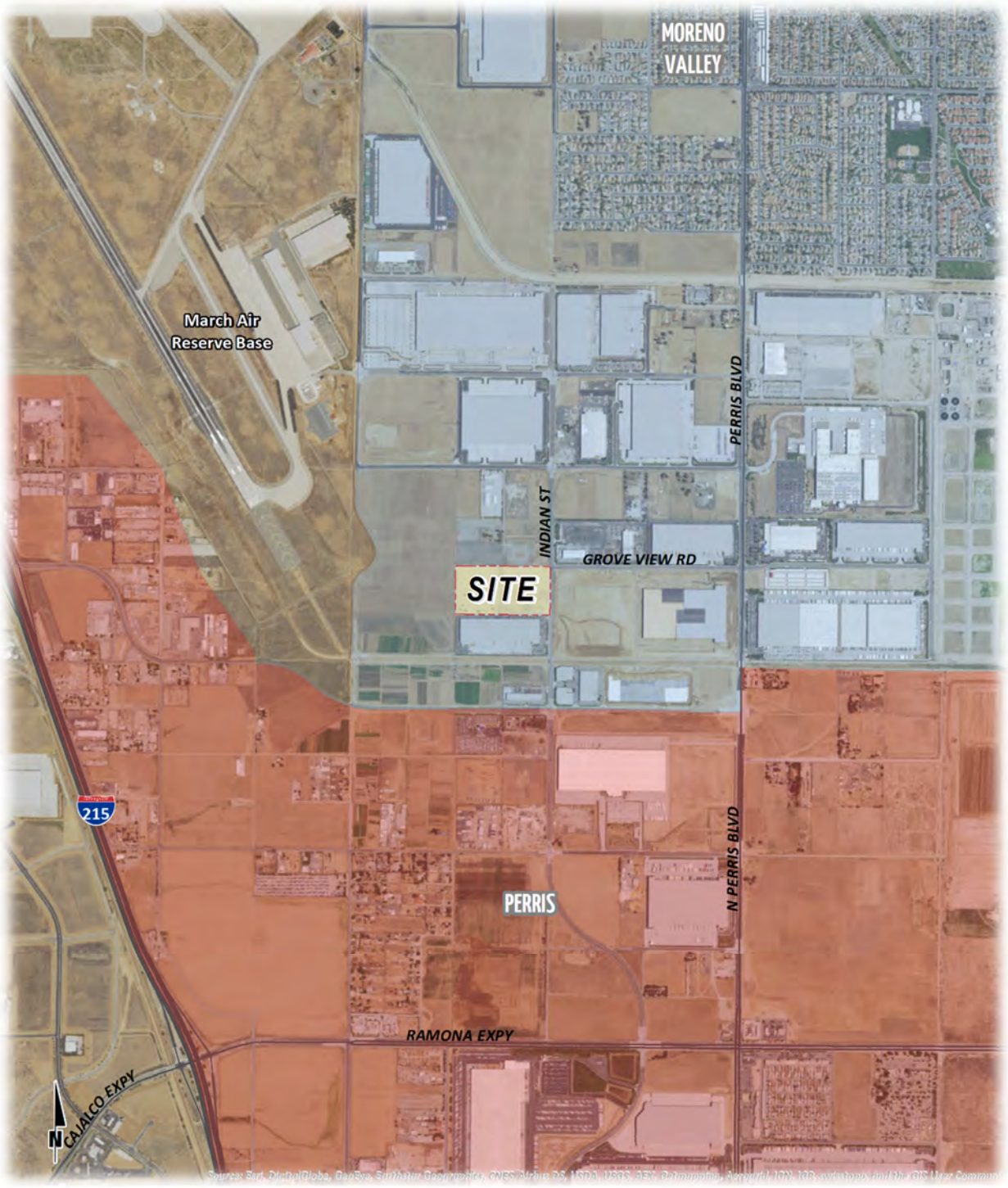

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EXHIBIT 1-B: EXISTING LAND USES



Source: Google Earth, Applied Planning.

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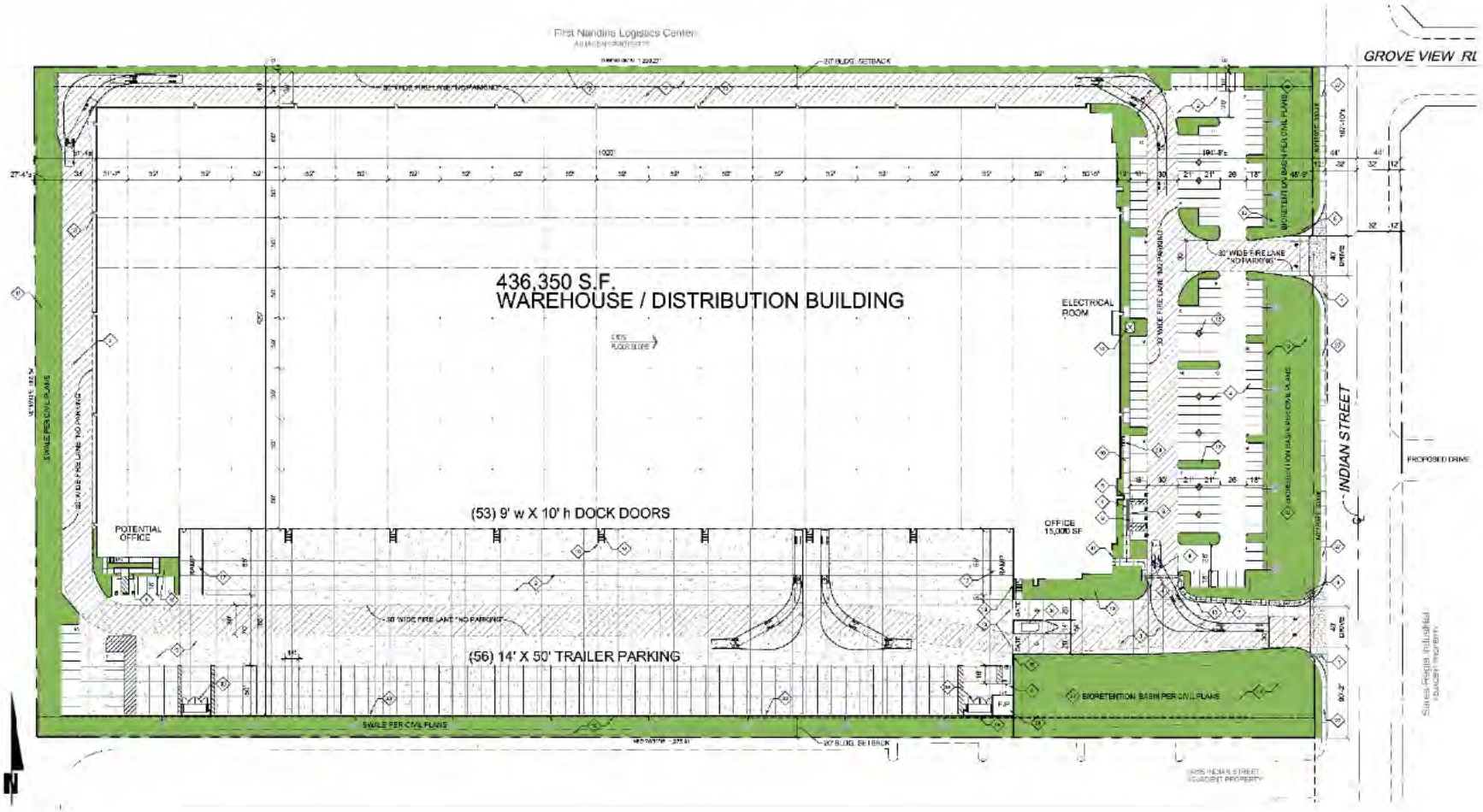
EXHIBIT 1-C: SITE PLAN



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2 FUNDAMENTALS

Noise has been simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

EXHIBIT 2-A: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

Source: Environmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004) March 1974.

2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (3) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA

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at approximately 100 feet, which can cause serious discomfort. (4) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2 NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most commonly used figure is the equivalent level (Leq). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the "average" noise levels within the environment.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite twenty-four hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of 5 decibels to dBA Leq sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA Leq sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. CNEL does not represent the actual sound level heard at any particular time, but rather represents the total sound exposure. The City of Moreno Valley relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

2.3 SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on the following factors.

2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been

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expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source.

2.3.3 ATMOSPHERIC EFFECTS

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 ft) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects.

2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an “out of sight, out of mind” effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby resident. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The FHWA does not consider the planting of vegetation to be a noise abatement measure.

2.4 TRAFFIC NOISE PREDICTION

Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway. According to the *Highway Traffic Noise Analysis and Abatement Policy and Guidance,* provided by the Federal Highway Administration (FHWA), the level of traffic noise depends on three primary factors: the volume of the traffic, the speed of the traffic, and the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. (5) A doubling of the traffic volume, assuming that the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mix on a given roadway may also have an effect on community noise levels. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise level impacts will increase.

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2.5 NOISE CONTROL

Noise control is the process of obtaining an acceptable noise environment for a particular observation point or receptor by controlling the noise source, transmission path, receptor, or all three. This concept is known as the source-path-receptor concept. In general, noise control measures can be applied to any and all of these three elements.

2.6 NOISE BARRIER ATTENUATION

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (5)

2.7 LAND USE COMPATIBILITY WITH NOISE

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (6)

2.8 COMMUNITY RESPONSE TO NOISE

Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon each individual's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

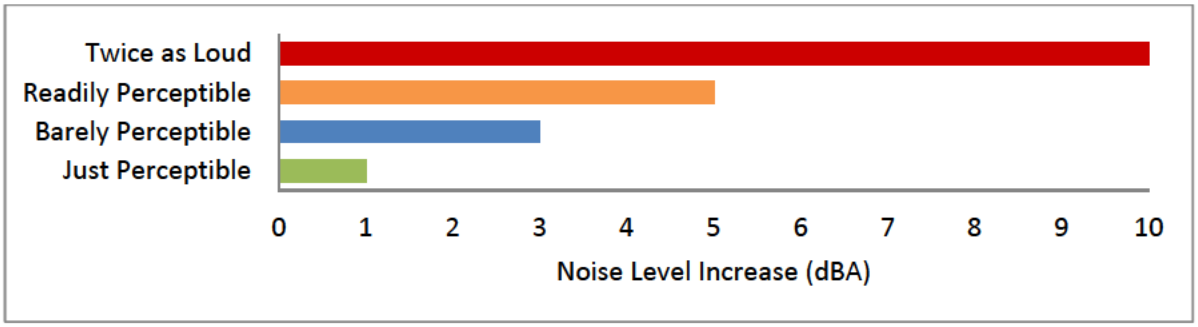
- Fear associated with noise producing activities;
- Socio-economic status and educational level;
- Perception that those affected are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity;
- Belief that the noise source can be controlled.

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. (7) Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of

one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. (7)

Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. An increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3 dBA are considered *barely perceptible*, and changes of 5 dBA are considered *readily perceptible*. (5)

EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION



2.9 VIBRATION

According to the Federal Transit Administration (FTA) *Transit Noise Impact and Vibration Assessment* (8), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings, but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal, and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. Decibel notation (VdB) serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment.

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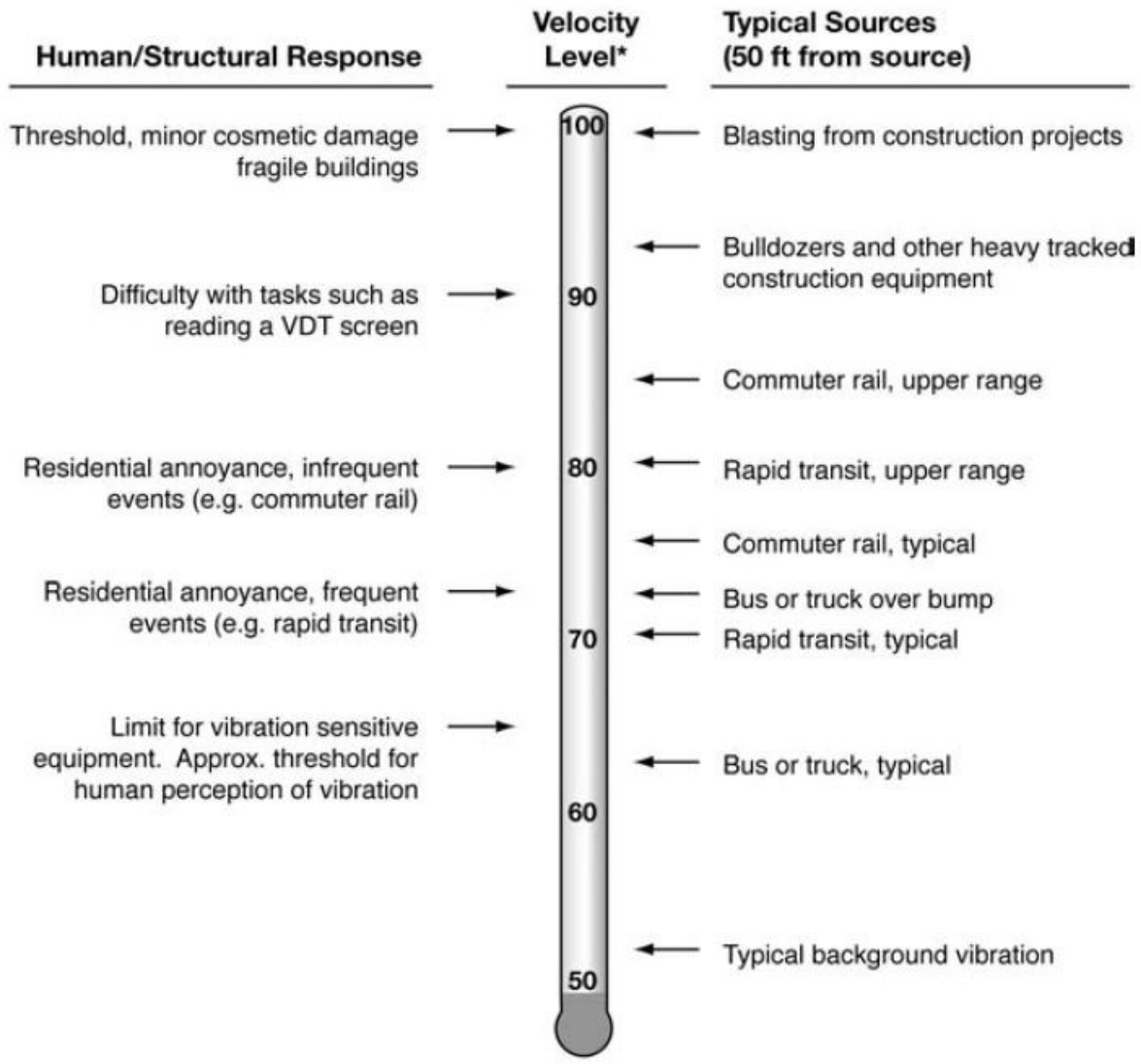
The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-C illustrates common vibration sources and the human and structural response to ground-borne vibration.

EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION



** RMS Vibration Velocity Level in VdB relative to 10^{-6} inches/second*

Source: Federal Transit Administration (FTA) Transit Noise Impact and Vibration Assessment.

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3 REGULATORY SETTING

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains fairly constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared according to guidelines adopted by the Governor's Office of Planning and Research. (9) The purpose of the Noise Element is to *limit the exposure of the community to excessive noise levels*.

3.2 STATE OF CALIFORNIA GREEN BUILDING STANDARDS CODE

The 2014 State of California's Green Building Standards Code contains mandatory measures for non-residential building construction in Section 5.506 on Environmental Comfort. (10) These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within an airport or freeway 65 dBA CNEL noise contour, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies must be at least 50. For those developments in areas where noise contours are not readily available and the noise level exceeds 65 dBA Leq for any hour of operation, a wall and roof-ceiling combined STC rating of 45, and exterior windows with a minimum STC rating of 40 are required (Section 5.507.4.1).

3.3 TRANSPORTATION NOISE STANDARDS

The Indian Street Commerce Center site is located in the City of Moreno Valley, however, the off-site transportation noise contributions associated with the traffic generated by the Project may potentially affect sensitive land uses along roadways in the City of Perris. Therefore, the following transportation noise standards for each jurisdiction are used in this analysis to evaluate the potential off-site traffic noise impacts as a result of the Project.

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3.3.1 CITY OF MORENO VALLEY GENERAL PLAN SAFETY ELEMENT

The City Noise Element typically provides the standards for land use compatibility for community noise exposure. However, the City of Moreno Valley General Plan does not include a noise element or specific transportation-related noise standards. Rather, noise is considered in the Environmental Safety section of the General Plan Safety Element. (11) While the General Plan provides background and noise fundamentals, it does not identify criteria to assess the impacts associated with off-site transportation-related noise impacts. Therefore, for the purpose of this analysis, the transportation noise criteria are derived from standards contained in the California Office of Planning and Research (OPR) *General Plan Guidelines*.

The OPR land use/noise compatibility standards are used by many California cities and counties and specify the maximum noise levels allowable for new developments impacted by transportation noise sources. The OPR land use/noise compatibility criteria, found in Figure 2 of the *General Plan Guidelines, Appendix C: Noise Element Guidelines,* identify the criteria for industrial land uses such as the Project, as shown on Exhibit 3-A. When the unmitigated exterior noise levels approach 70 dBA CNEL industrial land use is considered *normally acceptable*. With exterior noise levels ranging from 70 to 80 dBA CNEL, industrial land uses are considered *conditionally acceptable*, and with exterior noise levels greater than 80 dBA CNEL, they are considered *normally unacceptable*. For *normally unacceptable* land use, *new construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.* (9) For the purposes of this analysis, industrial land use such as the Project does not contain outdoor living areas requiring exterior noise mitigation as outlined in the OPR *General Plan Guidelines*, and therefore, only the interior noise levels experienced by employees at the Project site are evaluated against the appropriate noise level standards.

The purpose of the transportation noise criteria is to protect, create, and maintain an environment free from noise and vibration that may jeopardize the health or welfare of sensitive receptors, or degrade quality of life. City General Policies (City of Moreno Valley General Plan, pp.9-31, 9-32) act to ensure that when exterior noise levels exceed 65 dBA CNEL at sensitive receptors, mitigation is provided to ensure that interior noise levels of 45 dBA CNEL are maintained. General Plan Policies in this regard are consistent with, and support, the California Building Code interior noise standards.

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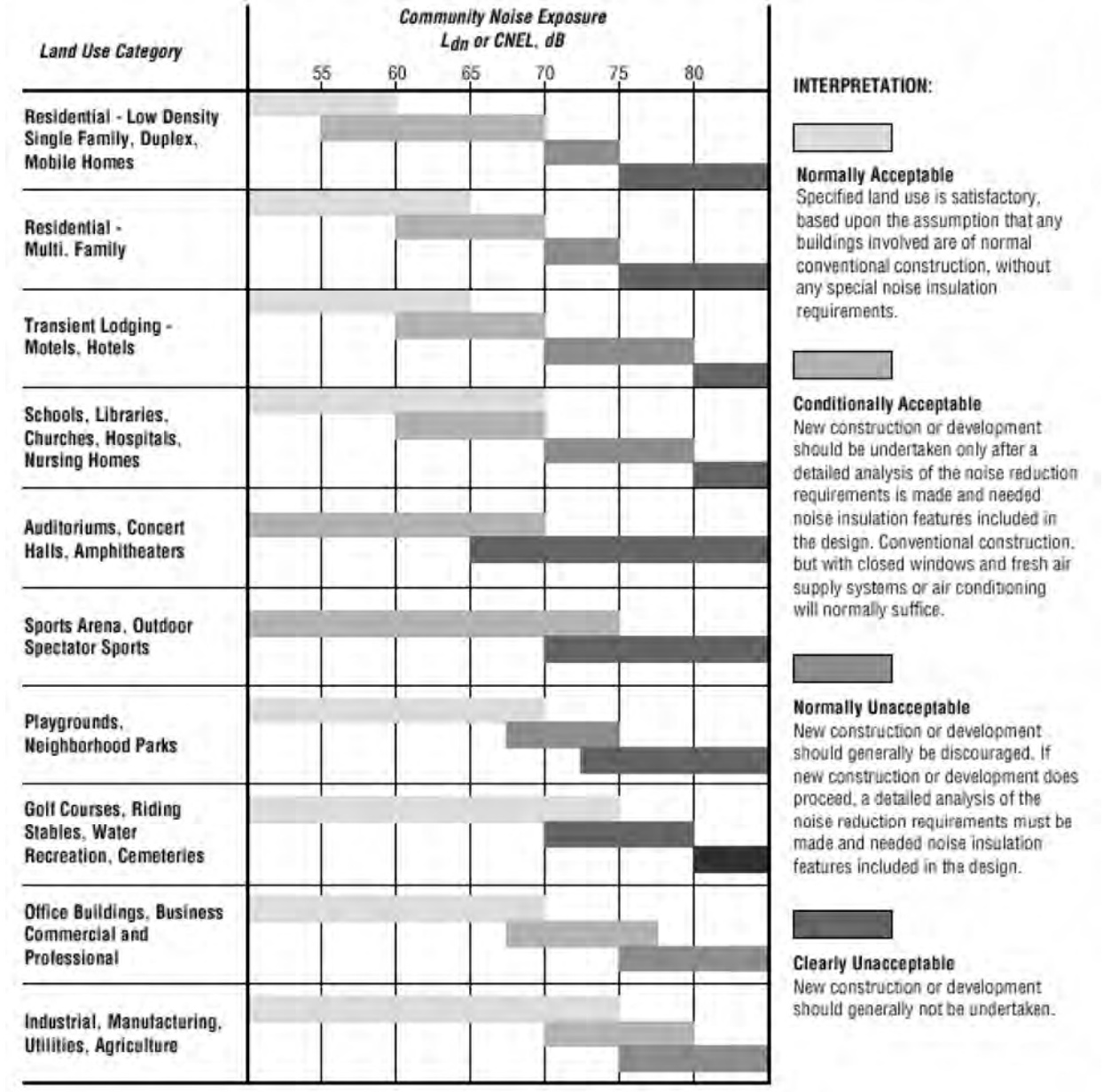
EXHIBIT 3-A: LAND USE NOISE COMPATIBILITY CRITERIA



Source: OPR General Plan Guidelines, Appendix C: Noise Element Guidelines, Figure 2.

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3.3.2 CITY OF PERRIS GENERAL PLAN NOISE ELEMENT

The City of Perris has adopted a Noise Element of the General Plan (12) to control and abate environmental noise, and to protect the citizens of Perris from excessive exposure to noise. The Noise Element specifies the maximum allowable unmitigated exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports and railroads. In addition, the Noise Element identifies the following noise polices and implementation measures designed to protect, create, and maintain an environment free from noise that may jeopardize the health or welfare of sensitive receptors, or degrade quality of life.

I.A.1: All new development proposals will be evaluated with respect to the State Noise/Land Use Compatibility Criteria. Placement of noise sensitive uses will be discouraged within any area exposed to exterior noise levels that fall into the "Normally Unacceptable" range and prohibited within areas exposed to "Clearly Unacceptable" noise ranges.

I.A.2: Site plans for new residential development near roadway and train noise sources shall incorporate increased building setbacks and/or provide for sufficient noise barriers for usable exterior yard areas so that the noise exposure in those areas does not exceed the levels considered "Normally Acceptable" in The State of California Noise/Land Use Compatibility Criteria

I.A.3: Acoustical studies shall be prepared for all new development proposals involving noise sensitive land uses, as defined in Section 16.22.020J of the Perris Municipal Code, where such projects are adjacent to roadways and within existing or projected roadway CNEL levels of 60 dBA or greater.

I.A.4: As part of any approvals of noise sensitive projects where reduction of exterior noise to 65 dBA is not reasonably feasible, the City will require the developer to issue disclosure statements to be identified on all real estate transfers associated with the affected property that identifies regular exposure to roadway noise.

I.A.5: No new residential dwellings shall be placed in areas with mitigated or unmitigated exterior noise levels that exceed 76 dBA CNEL.

The noise standards identified in the City of Perris General Plan are guidelines to evaluate the acceptability of the transportation related noise level impacts. These standards are based on the Governor's Office of Planning and Research and are used to assess the long-term traffic noise impacts on land uses. According to the City's Land Use Compatibility for Community Noise Exposure (Exhibit N-1), noise-sensitive land uses such as single family residences are *normally acceptable* with exterior noise levels below 60 dBA CNEL and *conditionally acceptable* with noise levels below 65 dBA CNEL.

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3.4 STATIONARY/AREA-SOURCE NOISE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property such as the Indian Street Commerce Center Project, stationary-source (operational) noise such as the expected idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods, and roof-top mechanical ventilation equipment are typically evaluated against standards established under a City's Municipal Code.

Although the Project site is located within the City of Moreno Valley, noise-sensitive receivers potentially impacted by stationary/area-source noise activities are also located in the City of Perris. Therefore, to accurately describe the potential Project-related operational noise level contributions, this analysis presents the appropriate stationary/area-source noise standards for each jurisdiction adjacent to the Project site. The City of Moreno Valley and City of Perris Municipal Code stationary-source noise standards are provided in Appendices 3.1 and 3.2, respectively.

3.4.1 CITY OF MORENO VALLEY STATIONARY/AREA-SOURCE NOISE STANDARDS

The City of Moreno Valley Municipal Code, Chapter 11.80 *Noise Regulation*, provides performance standards and noise control guidelines for determining and mitigating non-transportation or stationary-source noise impacts from operations at private properties. The City of Moreno Valley Municipal Code defines *Maximum Sound Levels (in dB(A)) for Source Land Uses* in Table 11.80.030-2 for *Residential* and *Commercial* land uses. As defined by the Municipal Code, Section 11.80.020 *Definitions*, *Commercial* land use *means all uses of land not otherwise classified as residential,* and *Residential* land use *means all uses of land primarily for dwelling units, as well as hospitals, schools, colleges and universities, and places of religious assembly.* (13) For the purpose of this analysis, the Indian Street Commerce Center Project is considered *Commercial* land use since it is not classified as residential. Based on this standard, the operational noise level limits for commercial land use, from Table 11.80.030-2, of 65 dBA Leq during the daytime (8:00 a.m. to 10:00 p.m.) hours and 60 dBA Leq during the nighttime (10:01 p.m. to 7:59 a.m.) hours shall apply to the operational noise from the Project.

Further, Section 11.80.030 (C) *Prohibited Acts*, *Nonimpulsive Sound Decibel Limits*, states: *No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2 when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on a privately owned property…* (13) Therefore, at a distance of 200 feet from the property line, the Project's operational noise levels shall not exceed the 65 dBA Leq daytime and 60 dBA Leq nighttime noise level standards for commercial land uses, as shown on Table 3-1.

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TABLE 3-1: STATIONARY/AREA-SOURCE NOISE STANDARDS AT 200 FEET FROM THE SOURCE

Jurisdiction	Source Land Use	Time Period	Maximum Noise Level For Source Land Uses @ 200' (dBA Leq)[2]
City of Moreno Valley[1]	Commercial	Daytime (8:00 a.m. - 10:00 p.m.)	65
		Nighttime (10:01 p.m. - 7:59 a.m.)	60

[1] Source: City of Moreno Valley Municipal Code, Chapter 11.80 Noise Regulation, Table 11.80.030-2 Maximum Sound Levels (in dB(A)) for Source Land Uses when measured at a distance of 200 feet from the property line of the source land use (Appendix 3.1).
[2] Leq represents a steady state sound level containing the same total energy as a time varying signal over a given sample period.

3.4.2 CITY OF PERRIS STATIONARY/AREA-SOURCE NOISE STANDARDS

The City of Perris Municipal Code, Chapter 7.34 *Noise Control*, Section 7.34.040, establishes the permissible noise level that may intrude into a neighbor's property from the use of sound amplifying equipment. The Municipal Code exterior noise level criteria for residential properties affected by stationary/area noise sources is included in Section 7.34.050 *General Prohibition*, which states that the Section 7.34.040 sound amplifying equipment noise standards shall apply. Therefore, for residential properties, the exterior noise level shall not exceed the Section 7.34.040 80 dBA Leq during daytime hours (7:00 a.m. to 10:00 p.m.) and shall not exceed 60 dBA Leq during the nighttime hours (10:00 p.m. to 7:00 a.m.), as shown on Table 3-2. (14) The City of Perris Municipal Code is included in Appendix 3.2.

TABLE 3-2: STATIONARY/AREA-SOURCE NOISE STANDARDS AT THE RECEIVING LAND USE

Jurisdiction	Receiving Land Use	Time Period	Noise Level Standard (dBA Leq)[2]
City of Perris[1]	Residential	Daytime (7:01 a.m. - 10:00 p.m.)	80
		Nighttime (10:01 p.m. - 7:00 a.m.)	60

[1] Source: City of Perris Municipal Code, Sections 7.34.040 & 7.34.050 (Appendix 3.2).
[2] Leq represents a steady state sound level containing the same total energy as a time varying signal over a given sample period.

3.5 CONSTRUCTION NOISE STANDARDS

To analyze noise impacts originating from the construction of the Indian Street Commerce Center Project, noise from construction activities are typically limited to the hours of operation established under a City's Municipal Code. To accurately describe the potential Project-related construction noise level contributions to the existing noise environment, this analysis presents the appropriate construction noise standards for each jurisdiction adjacent to the Project site including: the City of Moreno Valley and the City of Perris.

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3.5.1 CITY OF MORENO VALLEY CONSTRUCTION NOISE STANDARDS

The Municipal Code noise standards for construction are described below for the City of Moreno Valley to determine the potential noise impacts at nearby sensitive receiver locations. As a subset of its stationary-source noise regulations, the City Municipal Code establishes additional restrictions on construction-source noise. More specifically, Municipal Code Section 11.80.030 (D) (7), *Construction and Demolition*, provides the following:

> *No person shall operate or cause operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city manager or designee.*

A *noise disturbance*, as defined by the City of Moreno Valley Municipal Code, means any sound which:

- *Disturbs a reasonable person of normal sensitivities;*
- *Exceeds the sound level limits set forth in this chapter [Table 11.80.030-2];*
- *Is plainly audible as defined in this section. Where no specific distance is set forth for the determination of audibility, references to noise disturbance shall be deemed to mean plainly audible at a distance of two hundred (200) feet from the real property line of the source of the sound, if the sound occurs on a privately owned property, or from the source of the sound, if the sound occurs on public right, public space or other publicly owned property.*

Therefore, based on the Section 11.80.030 (D) (7) construction regulations, a construction-related *noise disturbance* occurs when the noise levels exceed the *commercial* land use criteria of 65 dBA Leq during the daytime hours and 60 dBA Leq during the nighttime hours at a distance of 200 feet from the property line of the source (Project site). In addition, grading operations shall be limited to the hours identified in Section 8.21.050 (O) of 7:00 a.m. to 6:00 p.m., Monday through Friday, and 8:00 a.m. to 4:00 p.m. on weekends and holidays or as approved by the City Engineer. The City of Moreno Valley construction noise standards are shown on Table 3-3 and included in Appendix 3.1.

TABLE 3-3: CONSTRUCTION NOISE STANDARDS AT 200 FEET FROM THE SOURCE LAND USE

Jurisdiction	Permitted Hours of Construction Activity	Construction Noise Level Standard at 200 Feet (dBA Leq)[2]	
		Daytime	Nighttime
City of Moreno Valley[1]	General Activity: 7:00 a.m. to 8:00 p.m. on any day. Grading is limited to 7:00 a.m. to 6:00 p.m. Monday to Friday; 8:00 a.m. to 4:00 p.m. on weekends and holidays.	65	N/A

[1] Source: City of Moreno Valley Municipal Code, Section 11.80.030 (D) (7) and Section 8.21.050 (O) (Appendix 3.1).
[2] Acceptable threshold for determining the relative significance of short-term Project construction noise levels, based on the City of Moreno Valley stationary noise standards shown on Table 3-1.
"Daytime" = 8:00 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:59 a.m. Construction activities generating substantive or objectionable noise not permitted during nighttime hours.

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3.5.2 CITY OF PERRIS CONSTRUCTION NOISE STANDARDS

The City of Perris Municipal Code, Section 7.34.060, identifies the City's construction noise standards and permitted hours of construction activity. Since the Project site is located in the City of Moreno Valley, the City of Perris would not have jurisdictional control over permitted hours of Project construction. Notwithstanding, the City of Perris Municipal Code, Section 7.34.060, noise level standard of 80 dBA Leq at residential properties would apply to the noise-sensitive receiver locations located in the City of Perris. (14) Table 3-4 shows the City of Perris construction noise standards, and the City of Perris Municipal Code is included in Appendix 3.2.

TABLE 3-4: CONSTRUCTION NOISE STANDARDS AT THE RECEIVING LAND USE

Jurisdiction	Construction Noise Level Standard (dBA Leq)
City of Perris[1]	80

[1] Source: City of Perris Municipal Code, Section 7.34.060 (Appendix 3.2). Construction activities generating substantive or objectionable noise not permitted during nighttime hours.

3.6 VIBRATION STANDARDS

The City of Moreno Valley and the City of Perris have not identified or adopted specific vibration level standards. However, the United States Department of Transportation Federal Transit Administration (FTA) provides guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines allow 80 VdB for residential uses and buildings where people normally sleep. (8) Operational and construction activities can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. Large bulldozers and loaded trucks can cause perceptible vibration levels proximate receptors. The FTA guidelines of 80 VdB for sensitive land uses provide a substantiated basis for determining the relative significance of potential Project-related vibration impacts due to on-site operational and construction activities.

Further, construction vibration has the potential to generate vibration levels capable of causing building damage when equipment is operating close to nearby existing structures. The FTA identifies construction vibration levels capable of building damage ranging from 0.12 to 0.5 in/sec in peak-particle-velocity (PPV). (8) Therefore, the lowest potential vibration level of 0.12 in/sec PPV, identified by the FTA, capable of causing building damage is used in this analysis to assess potential impacts at adjacent structures.

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3.7 MARCH AIR RESERVE BASE/INLAND PORT AIRPORT LAND USE COMPATIBILITY

The March Air Reserve Base/Inland Port Airport (MARB/IPA) is located approximately one-half mile west of the Project site. The *Riverside County Airport Land Use Compatibility Plan Policy Document* (RC ALUCP) includes the policies for determining the land use compatibility of the Project since it is located within 2 miles of an airport runway. Policy 4.1.5 *Noise Exposure for Other Land Uses* of the RC ALUCP requires that land uses, such as the industrial land use of the Project site, demonstrate compatibility with the acceptable noise levels on Table 2B. The Table 2B *Supporting Compatibility Criteria: Noise* matrix is shown on Exhibit 3-B and indicates that *clearly compatible* industrial land uses experience exterior noise levels below 65 dBA CNEL. For *clearly compatible* noise levels, *the activities associated with the specified land use can be carried out with essentially no interference from the noise exposure*. *Normally acceptable* noise levels for industrial land uses range from 65 to 70 dBA CNEL, and *noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities*. (15)

The noise contour boundaries used to determine the potential aircraft-related noise impacts at the Project site are found on Exhibit MA-4 of the RC ALUCP, and are presented on Exhibit 3-C of this report. Based on the RC ALUCP noise level contours for the MARB/IPA, the Project is partially located in the 60 to 65 dBA CNEL noise level contours, and therefore, represents *normally acceptable* land use based on the RC ALUCP compatibility criteria, and no noise mitigation is required with typical building construction.

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EXHIBIT 3-B: RC ALUCP SUPPORTING COMPATIBILITY CRITERIA: NOISE

Land Use Category	CNEL (dB) 50–55	55–60	60–65	65–70	70–75
Residential *					
single-family, nursing homes, mobile homes	++	o	–	– –	– –
multi-family, apartments, condominiums	++	+	o	– –	– –
Public					
schools, libraries, hospitals	+	o	–	– –	– –
churches, auditoriums, concert halls	+	o	o	–	– –
transportation, parking, cemeteries	++	++	++	+	o
Commercial and Industrial					
offices, retail trade	++	+	o	o	–
service commercial, wholesale trade, warehousing, light industrial	++	++	+	o	o
general manufacturing, utilities, extractive industry	++	++	++	+	+
Agricultural and Recreational					
cropland	++	++	++	++	+
livestock breeding	++	+	o	o	–
parks, playgrounds, zoos	++	+	+	o	–
golf courses, riding stables, water recreation	++	++	+	o	o
outdoor spectator sports	++	+	+	o	–
amphitheaters	+	o	–	– –	– –

Land Use Acceptability		Interpretation/Comments
++	*Clearly Acceptable*	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
+	*Normally Acceptable*	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.
o	*Marginally Acceptable*	The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The land use is acceptable on the conditions that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.
–	*Normally Unacceptable*	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.
– –	*Clearly Unacceptable*	Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.

* Subtract 5 dB for low-activity outlying airports (Chiriaco Summit and Desert Center)

Source: Riverside County Airport Land Use Compatibility Plan, Table 2B.

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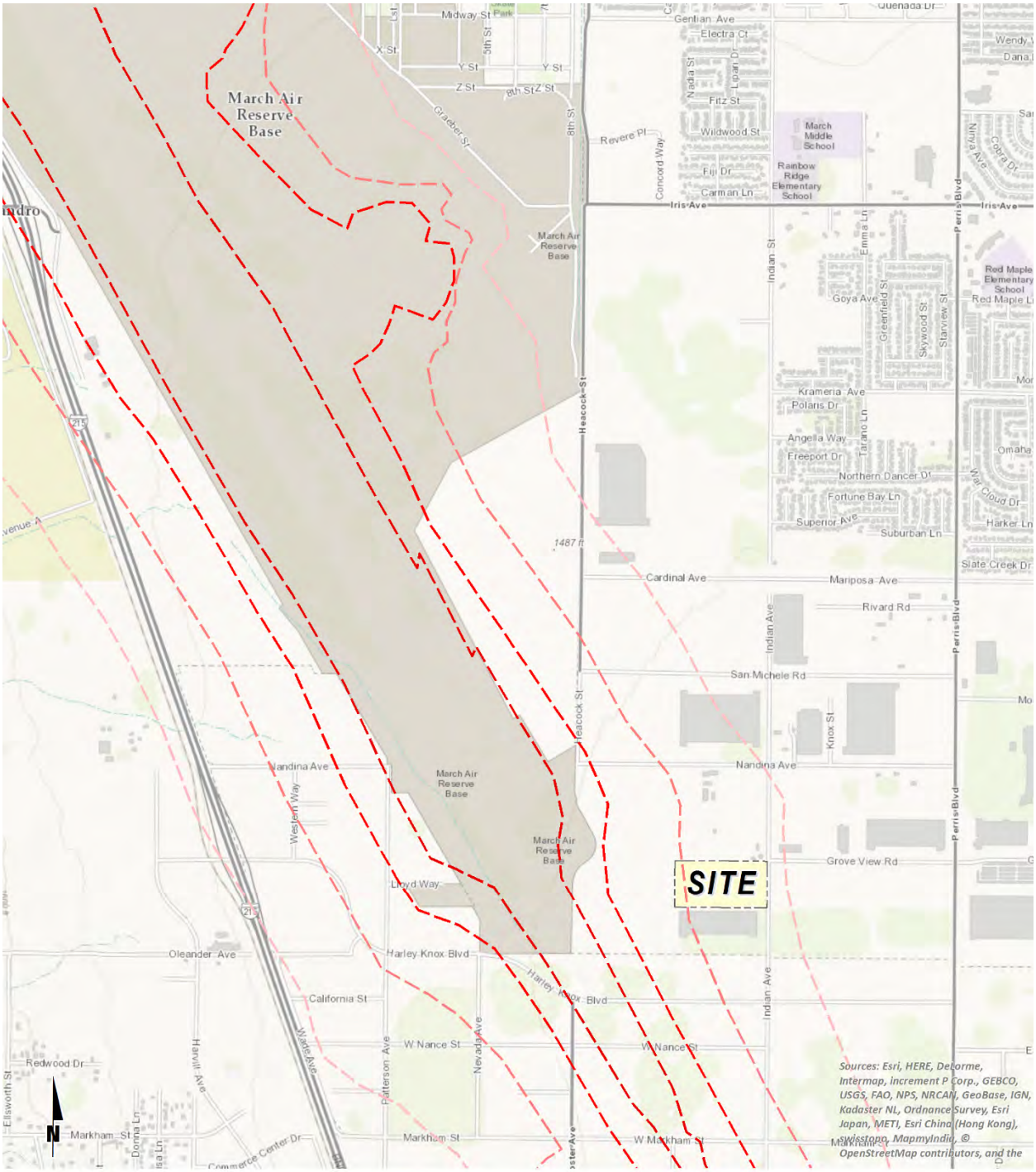
EXHIBIT 3-C: MARB/IPA FUTURE AIRPORT NOISE CONTOURS



LEGEND:

- Unmitigated 60 dBA CNEL Noise Level Contour Boundary
- Unmitigated 65 dBA CNEL Noise Level Contour Boundary
- Unmitigated 70 dBA CNEL Noise Level Contour Boundary
- Unmitigated 75 dBA CNEL Noise Level Contour Boundary
- Unmitigated 80 dBA CNEL Noise Level Contour Boundary

Source: Riverside County, Airport Land Use Compatibility Plan, Exhibit MA-4.

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4 THRESHOLDS OF SIGNIFICANCE

This section outlines the applicable thresholds of significance that were used assess the potential Project impacts. The significance criteria for each analysis is summarized on Table 4-1.

4.1 STANDARDS OF SIGNIFICANCE

Based on the noise criteria presented in Section 3, and direction provided within the CEQA Guidelines as implemented by the City of Moreno Valley, Project noise impacts would be considered potentially significant if the Project is determined to result in or cause the following conditions:

A. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

B. Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

C. A substantial permanent increase in ambient noise levels in the Project vicinity above existing levels without the proposed Project; or

D. A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above noise levels existing without the proposed Project.

E. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the Project area to excessive noise levels.

F. For a project within the vicinity of a private airstrip, expose people residing or working in the Project area to excessive noise levels.

4.2 NOISE IMPACT SIGNIFICANCE CRITERIA

The Indian Street Commerce Center noise impact significance criteria are discussed below.

Threshold Consideration: *Potential to expose persons to, or generate, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.*

Project Stationary/Area-Source Noise Exceeding City Standards Would be Considered Potentially Significant. The City of Moreno Valley Municipal Code Table 11.80.030-2, shown on Table 3-1, establishes the maximum acceptable noise levels that can be generated by stationary/area noise sources at a distance of 200 feet from the source land use within the City of Moreno Valley. In addition, the City of Perris Municipal Code Section 7.34.040, shown on Table 3-2, establishes the maximum acceptable stationary/area-source noise levels received at nearby residential land uses within the City of Perris. Project stationary/area-source noise that would cause or result in noise levels exceeding the levels in Tables 3-1 and/or 3-2 would potentially expose persons to noise levels in excess of standards established in the City of Moreno Valley and City of Perris Municipal Codes, and would therefore be potentially significant.

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As a subset of its stationary-source noise regulations, the City of Moreno Valley Municipal Code establishes additional restrictions on construction-source noise. More specifically, Municipal Code Section 11.80.030 (D) (7), *Construction and Demolition*, prohibits construction activities between the hours of 8:00 p.m. and 7:00 a.m. *such that the sound there from creates a noise disturbance*. (13) A *noise disturbance*, as defined by the City of Moreno Valley Municipal Code, means any sound which: d*isturbs a reasonable person of normal sensitivities; exceeds the sound level limits set forth in this chapter [Table 11.80.030-2]; or is plainly audible as defined in this section.* Therefore, based on the Section 11.80.030 (D) (7) construction regulations, a construction-related *noise disturbance* occurs when the noise levels exceed the stationary/area-source *commercial* land use criteria of 65 dBA Leq during the daytime hours and 60 dBA Leq during the nighttime hours at a distance of 200 feet from the property line of the source (Project site). In addition, grading operations shall be limited to the hours identified in Section 8.21.050 (O) of 7:00 a.m. to 6:00 p.m., Monday through Friday, and 8:00 a.m. to 4:00 p.m. on weekends and holidays or as approved by the City Engineer. (13)

The City of Perris Municipal Code, Section 7.34.060, identifies the City's construction noise standards and permitted hours of construction activity. Since the Project site is located in the City of Moreno Valley, the City of Perris would not have jurisdictional control over permitted hours of Project construction. Notwithstanding, the City of Perris Municipal Code, Section 7.34.060, noise level standard of 80 dBA Leq at residential properties would apply to the noise-sensitive receiver locations located in the City of Perris. (14) The City of Perris construction noise standards are shown on Table 3-4 of this report.

For the purposes of this analysis, the 65 dBA Leq numerical threshold is used to assess the potential construction noise level impacts at a distance of 200 feet from the source land use, and at the nearby sensitive receiver locations in the City of Moreno Valley. Construction noise levels at receiver locations in the City of Perris were evaluated analyzed based on the City of Perris Municipal Code 80 dBA Leq noise level threshold. Project construction stationary/area-source noise that would cause or result in noise levels exceeding the thresholds on Tables 3-3 and/or 3-4 would potentially expose persons to noise levels in excess of standards established as the acceptable threshold for determining the relative significance of Project construction noise levels, and would therefore be potentially significant.

Project Vehicular-Source Noise Exceeding City Standards Would be Considered Potentially Significant. The City Noise Element typically provides the standards for land use compatibility for community noise exposure. However, the City of Moreno Valley General Plan does not include a noise element or specific transportation related noise standards. Rather, noise is considered in the Environmental Safety section of the General Plan Safety Element. (11) While the General Plan provides background and noise fundamentals, it does not identify criteria to assess the impacts associated with off-site transportation related noise impacts. Therefore, for the purpose of this analysis, the transportation noise criteria are derived from standards contained in the *General Plan Guidelines*, a publication of the California Office of Planning and Research (OPR) prepared in October, 2003. (9) The OPR land use/noise compatibility standards are used by many California cities and counties and specify the maximum noise levels allowable for new developments impacted by transportation noise sources. Further, the City of Perris

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General Plan Noise Element guidelines and policies are consistent with the OPR criteria for off-site traffic noise on residential land uses.

The purpose of the transportation noise criteria is to protect, create, and maintain an environment free from noise and vibration that may jeopardize the health or welfare of sensitive receptors, or degrade quality of life. City General Policies (City of Moreno Valley General Plan, pp.9-31, 9-32 and City of Perris General Plan I.A.4) act to ensure that when exterior noise levels exceed 65 dBA CNEL at sensitive receptors, mitigation is provided to ensure that interior noise levels of 45 dBA CNEL are maintained. General Plan Policies in this regard are consistent with, and support, the California Building Code interior noise standards.

The 45 dBA CNEL interior noise level parameters established by the OPR take in to account and reflect California Building Code Title 24 residential construction standards, which typically provide 20 dBA noise attenuation from exterior conditions (with windows closed). Based on this assumption, ambient exterior noise levels should not exceed 65 dBA CNEL under normal conditions. Project vehicular-source noise that would cause or result in noise levels exceeding 65 dBA CNEL would therefore potentially expose persons to noise levels in excess of standards established in a local general plan, and would therefore be potentially significant.

The City of Moreno Valley General Plan Safety Element and the City of Perris General Plan Noise Element do not identify specific exterior noise level standards for non-noise-sensitive land uses such as the industrial use of the Project site. Therefore, the land use compatibility criteria for non-noise sensitive land uses is derived from standards contained in the *General Plan Guidelines*, a publication of the OPR. (9) The OPR guideline for the *normally acceptable* exterior noise level for non-noise-sensitive land use, such as industrial use, is 70 dBA CNEL. Noise levels greater than 70 dBA CNEL are considered *conditionally acceptable*. Project vehicular-source noise that would cause or result in noise levels exceeding 70 dBA CNEL would therefore potentially expose persons within non-noise-sensitive land uses to noise levels in excess of standards established in a local general plan, and would therefore be potentially significant.

Project Stationary/Area-Source Vibration Exceeding City Standards Would be Considered Potentially Significant. The City of Moreno Valley and the City of Perris have not identified or adopted specific vibration level standards. However, the United States Department of Transportation Federal Transit Administration (FTA) provides guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines allow 80 VdB for residential uses and buildings where people normally sleep. Project construction-source and/or stationary/area-source vibration that would cause or result in vibration levels exceeding the FTA threshold would potentially expose persons to vibration levels in excess of the quantified standard of 80 VdB, and would therefore be potentially significant. Further, construction vibration has the potential to generate vibration levels capable of causing building damage when equipment is operating close to nearby existing structures. The FTA identifies construction vibration levels capable of building damage ranging from 0.12 to 0.5 in/sec in peak-particle-velocity (PPV). (8) Therefore, the lowest potential vibration level of 0.12 in/sec PPV, identified by the FTA, capable of causing building damage is used in this analysis to assess potential impacts at adjacent structures.

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Summary

The potential for the Project to expose persons to, or generate, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies would occur if:

- Project stationary/area-source or vehicular-source noise would exceed City of Moreno Valley or City of Perris Municipal Code standards; or would conflict with City of Moreno Valley or City of Perris General Plan standards addressing vehicular-source noise on City roadways; or
- Project stationary/area-source vibration would exceed the FTA Vibration Standards.

Threshold Consideration: *Potential to result in or cause a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project; or*

Threshold Consideration: *Potential to result in or cause a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.*

Perceptible Project Stationary/Area-Source Noise Exceeding Maximum Acceptable Ambient Conditions Would be Considered Substantial and Potentially Significant. For the purposes of this analysis, the City of Moreno Valley and City of Perris Municipal Code exterior noise standards are also defined as the maximum acceptable ambient condition when considering stationary/area-source noise impacts. In this regard, the maximum acceptable ambient noise conditions established in this analysis reflect local standards for acceptable noise conditions; correlate with Policies established in the City General Plan(s); and are consistent with applicable California Office of Planning and Research (OPR) Land Use/Noise Compatibility Guidelines.

When ambient noise conditions are within acceptable standards and perceptible (3.0 dBA or greater) Project stationary/area-source noise (whether temporary/periodic or permanent) would individually or in combination with ambient noise levels, would exceed acceptable standards, Project-source increases in ambient conditions could adversely affect area land uses, and land use/noise compatibility standards may not be maintained. Perceptible Project stationary/area-source noise that would cause ambient conditions to exceed acceptable standards would therefore be considered substantial and potentially significant.

Perceptible Project Vehicular-Source Noise Exceeding Maximum Acceptable Ambient Conditions Would be Considered Substantial and Potentially Significant. Similarly, when considering vehicular-source noise, the noise-sensitive 65 dBA CNEL and non-noise sensitive 70 dBA CNEL criteria reflected in the OPR *General Plan Guidelines* are defined as the maximum acceptable ambient conditions when considering vehicular-source noise impacts. When ambient noise conditions are within acceptable parameters and perceptible (3.0 dBA or greater) Project vehicular-source noise would, individually or in combination with ambient conditions, exceed the applicable standard, Project-source increases in ambient conditions could adversely affect area land uses, and land/use noise compatibility standards may not be maintained. Perceptible Project vehicular-source noise that would cause ambient conditions to exceed applicable standards would therefore be considered substantial and potentially significant.

When Noise Levels Exceed Maximum Acceptable Ambient Conditions, Project Stationary/Area-Source Noise Increases of 1.5 dBA or Greater Would Be Considered Substantial and Potentially Significant. If, however, ambient conditions already exceed minimum acceptable standards, subsequent increases in noise levels may be considered substantial as they would contribute to already deficient conditions. Neither local municipalities nor the State have established a quantified incremental increase in noise levels that could be considered "substantial" in instances where ambient conditions may already be considered unacceptable. Guidance in this regard is, however, provided at the federal level through the Federal Interagency Committee on Noise (FICON).[1] FICON guidance facilitates assessment of project-generated increases in noise levels that take into account ambient noise conditions. Although the FICON guidance was specifically developed to assess aircraft noise impacts, this guidance is broadly relevant to all environmental noise assessments in determining perceived effects of noise at noise-sensitive land uses. The FICON guidance indicates that when ambient noise conditions are at or above normally acceptable standards, increases in noise of 1.5 dBA or greater would contribute to existing deficiencies, potentially resulting in increased community annoyance, citizen complaints, and potential litigation.

FICON guidance as applied within this analysis would indicate that when ambient conditions equal or exceed acceptable standards for stationary/area -source noise levels at noise-sensitive land uses, Project stationary/area-source noise increases of 1.5 dBA or greater in ambient conditions could result in increased community annoyance, citizen complaints, and potential litigation. For the purposes of this analysis then, when ambient conditions equal or exceed maximum acceptable standards, Project stationary/area -source noise increases of 1.5 dBA more in ambient conditions would therefore be considered substantial and therefore potentially significant.

When Noise Levels Exceed Maximum Acceptable Ambient Conditions, Project Vehicular-Source Noise Increases of 1.5 dBA or Greater Would be Considered Substantial and Potentially Significant. Similarly, when ambient noise conditions are at or above normally acceptable standards at noise-sensitive land uses, Project vehicular-source increases of 1.5 dBA or greater in ambient conditions would contribute to existing unacceptable conditions and could result in increased community annoyance, citizen complaints, and potential litigation. For the purposes of this analysis then, when ambient conditions equal or exceed acceptable standards, Project vehicular-source noise increase of 1.5 dBA more in ambient conditions would therefore be considered "substantial" and therefore potentially significant at noise-sensitive land uses.

Summary

A substantial temporary or permanent increase in ambient noise conditions would occur if Project-source noise would:

- Result in an perceptible increase in noise levels (3.0 dBA or greater) that would cause the acceptable ambient condition to be exceeded; or

[1] Federal Agency Review of Selected Airport Noise Analysis (Federal Interagency Committee on Noise) 1992.

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- Result in an increase of 1.5 dBA in ambient conditions when the noise environment at receiving noise-sensitive land uses already exceeds the acceptable ambient noise condition.

Threshold Consideration: *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the Project area to excessive noise levels.*

Threshold Consideration: *For a project within the vicinity of a private airstrip, expose people residing or working in the Project area to excessive noise levels.*

Aircraft-Source Noise Exceeding Airport Land Use Compatibility Plan (ALUCP) Standards Would be Considered Potentially Significant. [2] The *Riverside County Airport Land Use Compatibility Plan Policy Document* (RC ALUCP) includes the policies for determining the land use compatibility of the Project since it is located within 2 miles of an airport runway. Policy 4.1.5 *Noise Exposure for Other Land Uses* of the RC ALUCP requires that land uses, such as the industrial land use of the Project site, demonstrate compatibility with the acceptable noise levels on Table 2B. The Table 2B *Supporting Compatibility Criteria: Noise* matrix was previously shown on Exhibit 3-B and indicates that *clearly compatible* industrial land uses experience noise levels below 65 dBA CNEL. *Normally acceptable* noise levels for industrial land uses range from 65 to 70 dBA CNEL, and *noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities*. (15) The noise contour boundaries used to determine the potential aircraft-related noise impacts at the Project site are found on Exhibit MA-4 of the RC ALUCP, as previously presented on Exhibit 3-C of this report. Based on the RC ALUCP noise level contours for the MARB/IPA, the Project is partially located in the 60 to 65 dBA CNEL noise level contours, and therefore, represents *normally acceptable* land use based on the RC ALUCP compatibility criteria, and no noise mitigation is required with typical building construction.

[2] The Project site lies within the area regulated under the 2014 Riverside County ALUCP for March ARB/IPA (ALUCP) and the 2005 March Air Reserve Base Air Installation Compatibility Use Zone Study (MARB/IPA AICUZ, AICUZ). The compatibility zones and associated criteria set forth in the ALUCP provide noise and safety compatibility protection equivalent to or greater than correlating criteria presented in the AICUZ (ALUCP, p.1). The analysis presented herein reflects the more stringent criteria established under the ALUCP.

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TABLE 4-1: SUMMARY OF SIGNIFICANCE THRESHOLDS

Analysis Scenario	Receptor Land Use	City	Ambient Condition/ Exposure Scenario	Significance Criteria	
				Daytime	Nighttime
Off-Site	Noise-Sensitive[1]	All	if ambient is < 65 dBA	Project plus ambient is > 65 dBA; and a ≥ 3 dBA Project increase	
			if ambient is > 65 dBA	≥ 1.5 dBA Project increase	
	Non-Noise-Sensitive[2]		if ambient is < 70 dBA	Project plus ambient is > 70 dBA; and a ≥ 3 dBA Project increase	
Stationary/Area-Source	Noise-Sensitive	Moreno Valley[3]	At 200' from the property line of the source	65 dBA Leq	60 dBA Leq
		Perris[4]	At residential land use	80 dBA Leq	60 dBA Leq
Construction	Noise-Sensitive	Moreno Valley[5]	General Activity: 7:00 a.m. to 8:00 p.m. on any day. Grading is limited to 7:00 a.m. to 6:00 p.m. Monday to Friday; 8:00 a.m. to 4:00 p.m. on weekends and holidays.		
			At 200' from the property line of the source	65 dBA Leq	60 dBA Leq
		Perris[6]	At residential land use	80 dBA Leq	n/a[7]
Vibration[8]	Noise-Sensitive	All	Operational & Construction	80 VdB	80 VdB
	Adjacent Structures		Construction	0.12 in/sec PPV	0.12 in/sec PPV

[1] Source: FICON, 1992.
[2] Source: Office of Planning and Research, General Plan Guidelines, October 2003.
[3] Source: City of Moreno Valley Municipal Code, Chapter 11.80 Noise Regulation, Table 11.80.030-2 Maximum Sound Levels (in dB(A)) for Source Land Uses when measured at a distance of 200 feet from the property line of the source land use (Appendix 3.1).
[4] Source: City of Perris Municipal Code, Sections 7.34.040 & 7.34.050 (Appendix 3.2).
[5] Source: City of Moreno Valley Municipal Code, Section 11.80.030 (D) (7) and Section 8.21.050 (O) (Appendix 3.1).
[6] Source: City of Perris Municipal Code, Section 7.34.060 (Appendix 3.2).
[7] The City of Perris construction noise level limit only applies to the permitted daytime hours of construction activity.
[8] Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.
"Daytime" = 8:00 a.m. - 10:00 p.m.; "Nighttime" = 10:01 p.m. - 7:59 a.m. (City of Moreno Valley)
"Daytime" = 7:01 a.m. - 10:00 p.m.; "Nighttime" = 10:01 p.m. - 7:00 a.m. (City of Perris)

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5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at four locations in the Project study area. The noise level measurement locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Wednesday, November 11th, 2015. Appendix 5.1 includes study area photos.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (16)

5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned at the nearest sensitive receiver locations to assess the existing ambient hourly noise levels surrounding the Project site. To describe the existing noise environment, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels and is necessary to assess potential Project-related noise level contributions.

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EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS



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5.3 NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the average or equivalent sound levels (Leq). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (8:00 a.m. to 10:00 p.m.) and nighttime (10:01 p.m. to 7:59 a.m.) noise levels at each noise level measurement location. Appendix 5.2 provides a summary of the existing hourly ambient noise levels described below:

- Location L1 represents the noise levels on Nandina Avenue west of Perris Boulevard and north of existing residential homes. The noise level measurements collected show an overall 24-hour exterior noise level of 69.5 dBA CNEL. The hourly noise levels measured at location L1 ranged from 60.8 to 66.3 dBA Leq during the daytime hours and from 58.3 to 66.7 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 64.0 dBA Leq with an average nighttime noise level of 62.9 dBA Leq.
- Location L2 represents the noise levels at the Project site on Indian Avenue north of the existing iHerb, Inc. distribution building. The noise level measurements collected show an overall 24-hour exterior noise level of 70.2 dBA CNEL. The hourly noise levels measured at location L2 ranged from 59.1 to 65.4 dBA Leq during the daytime hours and from 59.6 to 67.8 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 62.8 dBA Leq with an average nighttime noise level of 63.7 dBA Leq.
- Location L3 represents the noise levels at the southwest corner of Nevada Avenue and Harley Knox Boulevard, north of existing residential homes, near the MARB/IPA runway. The 24-hour CNEL indicates that the overall exterior noise level is 63.3 dBA CNEL. At location L3 the background ambient noise levels ranged from 54.4 to 59.3 dBA Leq during the daytime hours to levels of 51.1 to 60.0 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 57.1 dBA Leq with an average nighttime noise level of 56.5 dBA Leq.
- Located southwest of the Project site on Webster Avenue, location L4 represents the noise levels near existing residential homes. The noise level measurements collected show an overall 24-hour exterior noise level of 63.3 dBA CNEL. The hourly noise levels measured at location L4 ranged from 51.2 to 60.0 dBA Leq during the daytime hours and from 49.6 to 60.6 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 57.4 dBA Leq with an average nighttime noise level of 57.2 dBA Leq.

Table 5-1 provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides a summary of the noise levels for each hour as well as the minimum, maximum, L_1, L_2, L_5, L_8, L_{25}, L_{50}, L_{90}, L_{95}, and L_{99} percentile noise levels observed during the daytime and nighttime periods.

The background ambient noise levels in the Project study area are dominated by the transportation-related noise associated with the arterial roadway network and the MARB/IPA airport. This includes the auto, heavy truck, and aircraft flyover activities near the noise level

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measurement locations. The 24-hour existing noise level measurements shown on Table 5-1 present the worst-case existing unmitigated ambient noise conditions.

TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS

Location[1]	Distance To Project Boundary (Feet)	Description	Energy Average Hourly Noise Level (dBA Leq)[2]		CNEL
			Daytime	Nighttime	
L1	2,675'	Located on Nandina Avenue west of Perris Boulevard and north of existing residential homes.	64.0	62.9	69.5
L2	0'	Located within the Project site on Indian Avenue north of the existing iHerb, Inc. industrial building.	62.8	63.7	70.2
L3	2,920'	Located at the southwest corner of Nevada Avenue and Harley Knox Boulevard, north of existing residential homes. The March Air Reserve Base runway is located north of this location.	57.1	56.5	63.3
L4	3,285'	Located southwest of the Project site on Webster Avenue near existing residential homes. The March Air Reserve Base runway is north of this location.	57.4	57.2	63.3

[1] See Exhibit 5-A for the noise level measurement locations.
[2] The long-term 24-hour measurement printouts are included in Appendix 5.2.
"Daytime" = 8:00 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:59 a.m.

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6 METHODS AND PROCEDURES

The following section outlines the methods and procedures used to model and analyze the future traffic noise environment.

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The estimated roadway noise impacts from vehicular traffic were calculated using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (17) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. (18) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period.

6.2 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site transportation noise impacts. Table 6-1 identifies the 12 study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications according to the City of Moreno Valley and City of Perris General Plan Circulation Elements, and the posted vehicle speeds. For the purpose of this analysis, soft site conditions were used to analyze the traffic noise impacts within the Project study area. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (19)

The Existing and Opening Year 2020 average daily traffic volumes used for this study are presented on Table 6-2 and were provided by the *Indian Street Commerce Center Traffic Impact Analysis* prepared by Urban Crossroads, Inc. (2) Table 6-3 provides the time of day (daytime, evening, and nighttime) vehicle splits.

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TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Adjacent Planned Land Use[1]	Distance from Centerline to Nearest Adjacent Land Use (Feet)[2]	Posted Vehicle Speed (mph)
1	Indian St.	n/o Grove View Rd.	Business Park	44'	50
2	Indian St.	s/o Grove View Rd.	Business Park	44'	50
3	Indian St.	s/o Driveway 1	Business Park	44'	50
4	Indian St.	n/o Harley Knox Bl.	Business Park	44'	50
5	Nandina Av.	w/o Indian St.	Business Park	44'	45
6	Nandina Av.	e/o Indian St.	Business Park	44'	45
7	Harley Knox Bl.	w/o I-215 NB Ramps	Light Industrial	55'	45
8	Harley Knox Bl.	e/o I-215 NB Ramps	Business Park	55'	45
9	Harley Knox Bl.	w/o Patterson Av.	Light Industrial	55'	45
10	Harley Knox Bl.	w/o Webster Av.	Light Industrial	55'	45
11	Harley Knox Bl.	w/o Indian St.	Light Industrial	55'	45
12	Harley Knox Bl.	e/o Indian St.	Business Park	55'	45

[1] Sources: City of Moreno Valley Land Use Map, Figure 2-2, and the City of Perris General Plan Map.
[2] Distance to adjacent land use is based upon the right-of-way distances for each functional roadway classification provided in the General Plan Circulation Elements.

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

ID	Roadway	Segment	Existing 2015 Average Daily Traffic Volumes[1]		Opening Year 2020 Average Daily Traffic Volumes[1]	
			Without Project	With Project	Without Project	With Project
1	Indian St.	n/o Grove View Rd.	12,132	12,266	31,231	31,365
2	Indian St.	s/o Grove View Rd.	13,803	14,743	26,360	27,300
3	Indian St.	s/o Driveway 1	12,634	13,324	25,070	25,760
4	Indian St.	n/o Harley Knox Bl.	13,627	14,317	23,901	24,591
5	Nandina Av.	w/o Indian St.	6,752	6,810	8,900	8,958
6	Nandina Av.	e/o Indian St.	4,399	4,475	7,143	7,219
7	Harley Knox Bl.	w/o I-215 NB Ramps	13,835	14,264	25,508	25,937
8	Harley Knox Bl.	e/o I-215 NB Ramps	17,815	18,331	33,350	33,866
9	Harley Knox Bl.	w/o Patterson Av.	17,720	18,236	33,244	33,760
10	Harley Knox Bl.	w/o Webster Av.	16,592	17,137	31,647	32,192
11	Harley Knox Bl.	w/o Indian St.	20,018	20,563	35,084	35,629
12	Harley Knox Bl.	e/o Indian St.	8,063	8,208	12,725	12,870

[1] Source: Indian Street Commerce Center Traffic Impact Analysis, Urban Crossroads, Inc., January 2016.

TABLE 6-3: TIME OF DAY VEHICLE SPLITS

Vehicle Type	Time of Day Splits[1]			Total of Time of Day Splits
	Daytime	Evening	Nighttime	
Autos	63.65%	6.76%	29.59%	100.00%
Medium Trucks	74.73%	4.34%	20.93%	100.00%
Heavy Trucks	66.08%	9.83%	24.09%	100.00%

[1] Based on existing 24-hour classification counts by vehicle type taken on 12/16/2015 at the intersection of Harley Knox Boulevard and Indian Street (Indian Street Commerce Center Traffic Impact Analysis, Urban Crossroads, Inc., January 2016). The vehicle mix percentage values rounded to the nearest one-hundredth.
"Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

According to the *Indian Street Commerce Center Traffic Impact Analysis* prepared by Urban Crossroads, Inc., the Project is expected to generate a net total of approximately 940 trip-ends per day (actual vehicles) with 104 AM peak hour trips and 109 PM peak hour trips. (2) The net Project trip generation includes 360 truck trip-ends per day. While the traffic volumes presented in the *Indian Street Commerce Center Traffic Impact Analysis* are expressed as Passenger Car Equivalent (PCE) trips, the Indian Street Commerce Center Noise Impact Analysis relies on the net Project trips to accurately account for the effect of individual truck trips on the study area roadway network.

To quantify the off-site noise levels, the Project-related truck trips were added to the heavy truck category in the FHWA noise prediction model. The addition of the Project-related truck trips increases the percentage of heavy trucks in the vehicle mix. This approach recognizes that the FHWA noise prediction model is significantly influenced by the number of heavy trucks in the vehicle mix.

The 360 daily Project truck trip-ends trucks were assigned to the 12 individual off-site study area roadway segments based on the estimated Project truck trip distribution percentages. Using the Project truck trips in combination with the Project trip distribution, it is possible to calculate the number of additional Project truck trips and vehicle mix percentages for each of the study area roadway segments. Table 6-4 shows the traffic flow by vehicle type (vehicle mix) used for all without Project traffic scenarios, and Tables 6-5 and 6-6 show the vehicle mixes used for the with Project traffic scenarios.

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TABLE 6-4: WITHOUT PROJECT CONDITIONS VEHICLE MIX

Classification	Total % Traffic Flow[1]			Total
	Autos	Medium Trucks	Heavy Trucks	
All Segments	77.86%	9.26%	12.88%	100.00%

[1] Based on existing 24-hour classification counts by vehicle type taken on 12/16/2015 at the intersection of Harley Knox Boulevard and Indian Street (Indian Street Commerce Center Traffic Impact Analysis, Urban Crossroads, Inc., January 2016). The vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-5: EXISTING WITH PROJECT CONDITIONS VEHICLE MIX

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Indian St.	n/o Grove View Rd.	77.95%	9.19%	12.86%	100.00%
2	Indian St.	s/o Grove View Rd.	76.83%	9.15%	14.03%	100.00%
3	Indian St.	s/o Driveway 1	76.44%	9.28%	14.28%	100.00%
4	Indian St.	n/o Harley Knox Bl.	76.54%	9.28%	14.19%	100.00%
5	Nandina Av.	w/o Indian St.	78.05%	9.18%	12.78%	100.00%
6	Nandina Av.	e/o Indian St.	77.83%	9.19%	12.98%	100.00%
7	Harley Knox Bl.	w/o I-215 NB Ramps	76.13%	9.45%	14.43%	100.00%
8	Harley Knox Bl.	e/o I-215 NB Ramps	76.61%	9.36%	14.02%	100.00%
9	Harley Knox Bl.	w/o Patterson Av.	76.61%	9.36%	14.03%	100.00%
10	Harley Knox Bl.	w/o Webster Av.	76.57%	9.35%	14.08%	100.00%
11	Harley Knox Bl.	w/o Indian St.	76.78%	9.34%	13.88%	100.00%
12	Harley Knox Bl.	e/o Indian St.	78.25%	9.09%	12.66%	100.00%

[1] Source: Indian Street Commerce Center Traffic Impact Analysis, Urban Crossroads, Inc., January 2016.
[2] Vehicle mix percentage values rounded to the nearest one-hundredth.

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TABLE 6-6: OPENING YEAR 2020 WITH PROJECT CONDITIONS VEHICLE MIX

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Indian St.	n/o Grove View Rd.	77.89%	9.23%	12.88%	100.00%
2	Indian St.	s/o Grove View Rd.	77.30%	9.20%	13.50%	100.00%
3	Indian St.	s/o Driveway 1	77.12%	9.27%	13.61%	100.00%
4	Indian St.	n/o Harley Knox Bl.	77.09%	9.27%	13.64%	100.00%
5	Nandina Av.	w/o Indian St.	78.00%	9.20%	12.80%	100.00%
6	Nandina Av.	e/o Indian St.	77.84%	9.21%	12.95%	100.00%
7	Harley Knox Bl.	w/o I-215 NB Ramps	76.90%	9.36%	13.73%	100.00%
8	Harley Knox Bl.	e/o I-215 NB Ramps	77.18%	9.31%	13.50%	100.00%
9	Harley Knox Bl.	w/o Patterson Av.	77.18%	9.31%	13.50%	100.00%
10	Harley Knox Bl.	w/o Webster Av.	77.17%	9.31%	13.52%	100.00%
11	Harley Knox Bl.	w/o Indian St.	77.24%	9.30%	13.46%	100.00%
12	Harley Knox Bl.	e/o Indian St.	78.11%	9.15%	12.74%	100.00%

[1] Source: Indian Street Commerce Center Traffic Impact Analysis, Urban Crossroads, Inc., January 2016.
[2] Vehicle mix percentage values rounded to the nearest one-hundredth.

6.3 VIBRATION ASSESSMENT

This analysis focuses on the potential ground-borne vibration associated with vehicular traffic and construction activities. Ground-borne vibration levels from automobile traffic are generally overshadowed by vibration generated by heavy trucks that roll over the same uneven roadway surfaces. However, due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular traffic-induced ground-borne vibration is rarely perceptible beyond the roadway right-of-way, and rarely results in vibration levels that cause damage to buildings in the vicinity.

However, while vehicular traffic is rarely perceptible, construction has the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized on Table 6-7. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the human response (annoyance) using the following vibration assessment methods defined by the FTA. To describe the human response (annoyance) associated with vibration impacts the FTA provides the following equation:

$$L_{VdB}(D) = L_{VdB}(25\text{ ft}) - 30\log(D/25)$$

To describe the potential building damage associated with vibration impacts the FTA provides the following equation:

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

TABLE 6-7: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	PPV (in/sec) at 25 feet	Vibration Decibels (VdB) at 25 feet
Small bulldozer	0.003	58
Jackhammer	0.035	79
Loaded Trucks	0.076	86
Large bulldozer	0.089	87

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

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7 OFF-SITE TRANSPORTATION NOISE IMPACTS

To assess the off-site transportation CNEL noise level impacts associated with development of the proposed Project, noise contours were developed based on the *Indian Street Commerce Center Traffic Impact Analysis*. (2) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Noise contours were developed for the following traffic scenarios:

- Existing Without / With Project: This scenario refers to the existing present-day noise conditions, without and with the proposed Project.
- Opening Year 2020 Without / With Project: This scenario refers to the background noise conditions at future Year 2020 without and with the proposed Project. This scenario corresponds to 2020 conditions, and includes all cumulative projects identified in the Traffic Impact Analysis.

7.1 TRAFFIC NOISE CONTOURS

To quantify the Project's traffic noise impacts on the surrounding areas, the changes in traffic noise levels on 12 roadway segments surrounding the Project were calculated based on the changes in the average daily traffic volumes. The noise contours were used to assess the Project's incremental traffic-related noise impacts at the right-of-way of each roadway conveying Project traffic and the property line of the adjacent land uses.

The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA noise levels. The noise contours do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels. In addition, since the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary/area noise sources within the Project study area. Tables 7-1 through 7-4 present a summary of the unmitigated exterior traffic noise levels for the 12 study area roadway segments analyzed from the without Project to the with Project conditions in each of the two timeframes: Existing and Opening Year 2020 conditions. Appendix 7.1 includes a summary of the traffic noise level contours for each of the four traffic scenarios.

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TABLE 7-1: EXISTING WITHOUT PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Indian St.	n/o Grove View Rd.	Business Park	78.9	171	369	796
2	Indian St.	s/o Grove View Rd.	Business Park	79.4	187	403	867
3	Indian St.	s/o Driveway 1	Business Park	79.0	176	379	818
4	Indian St.	n/o Harley Knox Bl.	Business Park	79.4	185	399	860
5	Nandina Av.	w/o Indian St.	Business Park	75.5	102	220	475
6	Nandina Av.	e/o Indian St.	Business Park	73.6	77	166	357
7	Harley Knox Bl.	w/o I-215 NB Ramps	Light Industrial	77.8	182	392	844
8	Harley Knox Bl.	e/o I-215 NB Ramps	Business Park	78.9	215	463	998
9	Harley Knox Bl.	w/o Patterson Av.	Light Industrial	78.9	214	462	995
10	Harley Knox Bl.	w/o Webster Av.	Light Industrial	78.6	205	442	952
11	Harley Knox Bl.	w/o Indian St.	Light Industrial	79.4	232	501	1079
12	Harley Knox Bl.	e/o Indian St.	Business Park	75.4	127	273	589

[1] Sources: City of Moreno Valley Land Use Map, Figure 2-2, and the City of Perris General Plan Map.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

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TABLE 7-2: EXISTING WITH PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Indian St.	n/o Grove View Rd.	Business Park	78.9	172	371	800
2	Indian St.	s/o Grove View Rd.	Business Park	80.0	203	437	941
3	Indian St.	s/o Driveway 1	Business Park	79.6	191	412	888
4	Indian St.	n/o Harley Knox Bl.	Business Park	79.9	200	431	929
5	Nandina Av.	w/o Indian St.	Business Park	75.5	102	221	475
6	Nandina Av.	e/o Indian St.	Business Park	73.7	78	168	362
7	Harley Knox Bl.	w/o I-215 NB Ramps	Light Industrial	78.3	196	422	910
8	Harley Knox Bl.	e/o I-215 NB Ramps	Business Park	79.3	228	492	1060
9	Harley Knox Bl.	w/o Patterson Av.	Light Industrial	79.3	228	490	1057
10	Harley Knox Bl.	w/o Webster Av.	Light Industrial	79.0	219	471	1015
11	Harley Knox Bl.	w/o Indian St.	Light Industrial	79.7	245	529	1139
12	Harley Knox Bl.	e/o Indian St.	Business Park	75.5	127	274	590

[1] Sources: City of Moreno Valley Land Use Map, Figure 2-2, and the City of Perris General Plan Map.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

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TABLE 7-3: OPENING YEAR 2020 WITHOUT PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Indian St.	n/o Grove View Rd.	Business Park	83.0	322	694	1495
2	Indian St.	s/o Grove View Rd.	Business Park	82.2	288	620	1335
3	Indian St.	s/o Driveway 1	Business Park	82.0	278	599	1291
4	Indian St.	n/o Harley Knox Bl.	Business Park	81.8	269	580	1251
5	Nandina Av.	w/o Indian St.	Business Park	76.7	123	265	571
6	Nandina Av.	e/o Indian St.	Business Park	75.7	106	229	493
7	Harley Knox Bl.	w/o I-215 NB Ramps	Light Industrial	80.4	273	589	1268
8	Harley Knox Bl.	e/o I-215 NB Ramps	Business Park	81.6	327	704	1517
9	Harley Knox Bl.	w/o Patterson Av.	Light Industrial	81.6	326	702	1513
10	Harley Knox Bl.	w/o Webster Av.	Light Industrial	81.4	316	680	1464
11	Harley Knox Bl.	w/o Indian St.	Light Industrial	81.8	338	728	1569
12	Harley Knox Bl.	e/o Indian St.	Business Park	77.4	172	370	798

[1] Sources: City of Moreno Valley Land Use Map, Figure 2-2, and the City of Perris General Plan Map.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

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TABLE 7-4: OPENING YEAR 2020 WITH PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Indian St.	n/o Grove View Rd.	Business Park	83.0	323	695	1498
2	Indian St.	s/o Grove View Rd.	Business Park	82.5	301	647	1395
3	Indian St.	s/o Driveway 1	Business Park	82.3	290	626	1348
4	Indian St.	n/o Harley Knox Bl.	Business Park	82.1	282	607	1308
5	Nandina Av.	w/o Indian St.	Business Park	76.7	123	265	571
6	Nandina Av.	e/o Indian St.	Business Park	75.8	107	231	497
7	Harley Knox Bl.	w/o I-215 NB Ramps	Light Industrial	80.7	285	614	1323
8	Harley Knox Bl.	e/o I-215 NB Ramps	Business Park	81.8	338	727	1567
9	Harley Knox Bl.	w/o Patterson Av.	Light Industrial	81.8	337	726	1564
10	Harley Knox Bl.	w/o Webster Av.	Light Industrial	81.6	327	704	1516
11	Harley Knox Bl.	w/o Indian St.	Light Industrial	82.0	349	751	1618
12	Harley Knox Bl.	e/o Indian St.	Business Park	77.4	172	371	799

[1] Sources: City of Moreno Valley Land Use Map, Figure 2-2, and the City of Perris General Plan Map.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

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7.2 EXISTING CONDITION PROJECT TRAFFIC NOISE LEVEL CONTRIBUTIONS

Table 7-1 presents the Existing without Project conditions CNEL noise levels. From this we can see that the exterior noise levels are expected to range from 73.6 to 79.4 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 shows the Existing with Project conditions will range from 73.7 to 80.0 dBA CNEL. Project traffic would not cause or result in increased noise levels that would exceed the 65 dBA CNEL threshold condition. Nor would Project traffic cause or result in increased noise levels of greater than 1.5 dBA CNEL when the without-Project condition already exceeds 65 dBA CNEL.

TABLE 7-5: EXISTING CONDITION OFF-SITE PROJECT RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[1]			Threshold Exceeded?
				No Project	With Project	Project Addition	
1	Indian St.	n/o Grove View Rd.	Business Park	78.9	78.9	0.0	No
2	Indian St.	s/o Grove View Rd.	Business Park	79.4	80.0	0.6	No
3	Indian St.	s/o Driveway 1	Business Park	79.0	79.6	0.6	No
4	Indian St.	n/o Harley Knox Bl.	Business Park	79.4	79.9	0.5	No
5	Nandina Av.	w/o Indian St.	Business Park	75.5	75.5	0.0	No
6	Nandina Av.	e/o Indian St.	Business Park	73.6	73.7	0.1	No
7	Harley Knox Bl.	w/o I-215 NB Ramps	Light Industrial	77.8	78.3	0.5	No
8	Harley Knox Bl.	e/o I-215 NB Ramps	Business Park	78.9	79.3	0.4	No
9	Harley Knox Bl.	w/o Patterson Av.	Light Industrial	78.9	79.3	0.4	No
10	Harley Knox Bl.	w/o Webster Av.	Light Industrial	78.6	79.0	0.4	No
11	Harley Knox Bl.	w/o Indian St.	Light Industrial	79.4	79.7	0.3	No
12	Harley Knox Bl.	e/o Indian St.	Business Park	75.4	75.5	0.1	No

[1] Sources: City of Moreno Valley Land Use Map, Figure 2-2, and the City of Perris General Plan Map.

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7.3 Opening Year 2020 Project Traffic Noise Level Contributions

Table 7-6 presents a comparison of the Opening Year 2020 without and with Project conditions CNEL noise levels. Table 7-3 shows that the exterior noise levels without accounting for any noise attenuation features are expected to range from 75.7 to 83.0 dBA CNEL without the Project. Table 7-4 presents the Opening Year 2020 with Project conditions noise level contours that are expected to range from 75.8 to 83.0 dBA CNEL. As shown on Table 7-6 Project traffic would not cause or result in increased noise levels that would exceed the 65 dBA CNEL threshold condition. Nor would Project traffic cause or result in increased noise levels of greater than 1.5 dBA CNEL when the without-Project condition already exceeds 65 dBA CNEL.

TABLE 7-6: OPENING YEAR 2020 OFF-SITE PROJECT RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[1]			Threshold Exceeded?
				No Project	With Project	Project Addition	
1	Indian St.	n/o Grove View Rd.	Business Park	83.0	83.0	0.0	No
2	Indian St.	s/o Grove View Rd.	Business Park	82.2	82.5	0.3	No
3	Indian St.	s/o Driveway 1	Business Park	82.0	82.3	0.3	No
4	Indian St.	n/o Harley Knox Bl.	Business Park	81.8	82.1	0.3	No
5	Nandina Av.	w/o Indian St.	Business Park	76.7	76.7	0.0	No
6	Nandina Av.	e/o Indian St.	Business Park	75.7	75.8	0.1	No
7	Harley Knox Bl.	w/o I-215 NB Ramps	Light Industrial	80.4	80.7	0.3	No
8	Harley Knox Bl.	e/o I-215 NB Ramps	Business Park	81.6	81.8	0.2	No
9	Harley Knox Bl.	w/o Patterson Av.	Light Industrial	81.6	81.8	0.2	No
10	Harley Knox Bl.	w/o Webster Av.	Light Industrial	81.4	81.6	0.2	No
11	Harley Knox Bl.	w/o Indian St.	Light Industrial	81.8	82.0	0.2	No
12	Harley Knox Bl.	e/o Indian St.	Business Park	77.4	77.4	0.0	No

[1] Sources: City of Moreno Valley Land Use Map, Figure 2-2, and the City of Perris General Plan Map.

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7.4 OFF-SITE TRAFFIC NOISE IMPACTS TO THE PROJECT SITE

As shown on Table 7-6, the Opening Year 2020 with Project off-site traffic noise levels at the closest roadway segment to the Project site, Indian Street south of Grove View Road, will approach 82.5 dBA CNEL. The OPR *General Plan Guidelines, Appendix C: Noise Element Guidelines*, previously discussed in Section 3.3.1, indicates that industrial land use is considered *normally unacceptable* with exterior noise levels above 80 dBA CNEL. However, the Project's industrial land use does not contain outdoor areas identified by the OPR which require exterior noise mitigation. The Project must still comply with the interior noise reduction requirements of the 2014 State of California's Green Building Standards Code for non-residential land uses experiencing 65 dBA CNEL or greater noise levels. Therefore, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies of the Project building must be at least 50 to satisfy the 2014 State of California's Green Building Standards Code. (10)

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8 RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction noise impacts, the following five receiver locations, as shown on Exhibit 8-A, were identified as representative locations for analysis. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include: schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include: multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, natural open space, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

Representative sensitive receivers in the vicinity of the Project site include the single-family residential homes at locations R1 to R5. The closest noise-sensitive receiver is represented by location R1 where an existing residential home is located approximately 1,968 feet northeast of the Project site boundary.

R1: Located approximately 1,968 feet northeast of the Project site on Nandina Avenue, R1 represents an existing single-family residential home. A long-term noise measurement was taken near this location, L1, to describe the existing ambient noise environment.

R2: Location R2 represents the existing residential home located roughly 3,380 feet south of the Project site on Markham Street.

R3: Location R3 represents the existing residential homes situated southwest of the Project site at a distance of approximately 3,645 feet on Markham Street.

R4: Location R4 represents the existing residential homes situated approximately 3,171 feet southwest of the Project site on Nevada Avenue. A long-term noise measurement was taken north this location, L3, to describe the existing ambient noise environment.

R5: At a distance of approximately 3,964 feet, location R5 represents a single-family residential home situated on Patterson Avenue west of the Project site.

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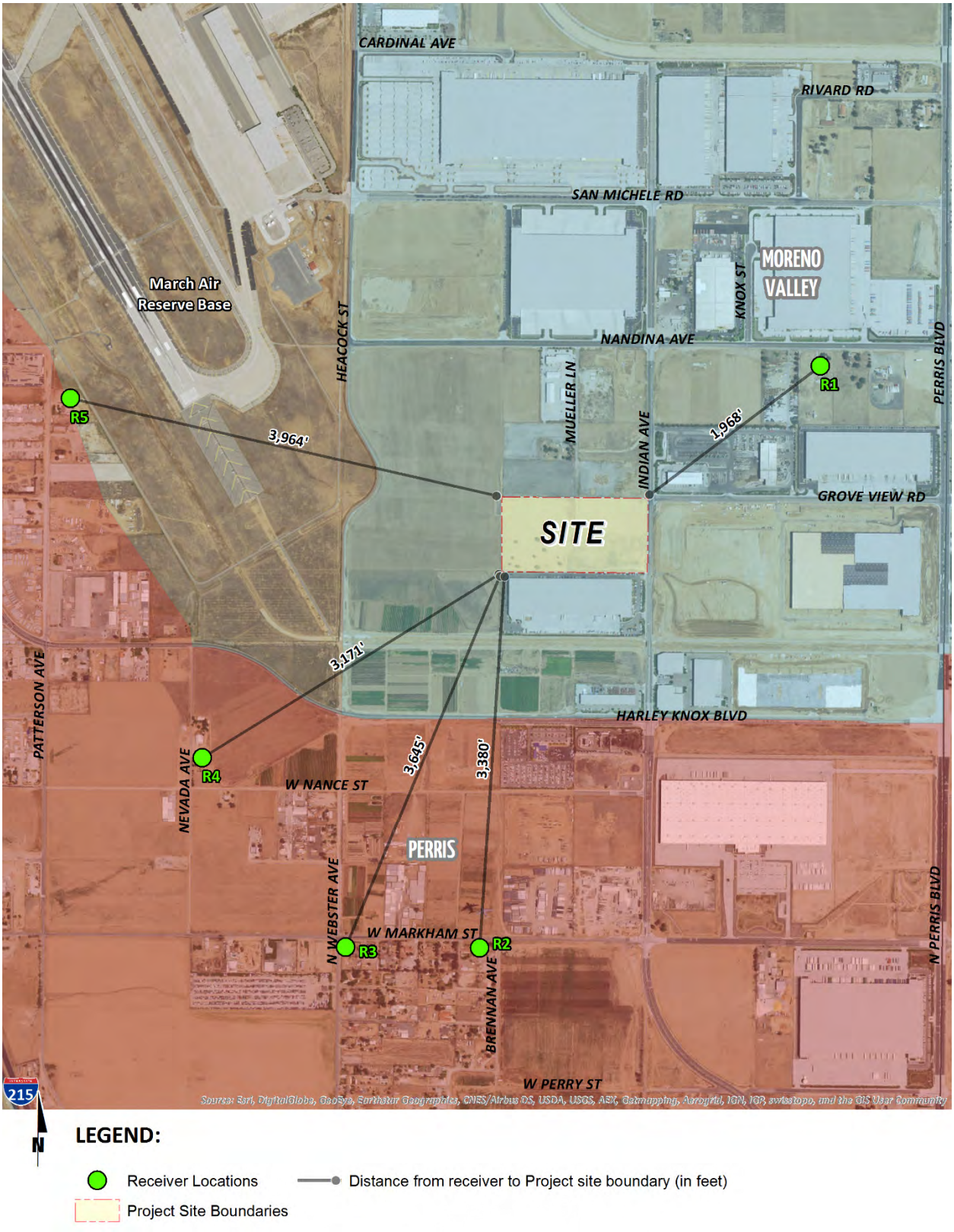
EXHIBIT 8-A: RECEIVER LOCATIONS



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9 STATIONARY/AREA-SOURCE NOISE IMPACTS

This section analyzes the potential stationary/area-source noise impacts at nearby receiver locations resulting from operation of the proposed Indian Street Commerce Center. Exhibit 9-A identifies the representative receiver locations and noise source locations used to assess the stationary/area-source noise levels.

9.1 STATIONARY/AREA-SOURCE NOISE STANDARDS

Although the Project site is located within the City of Moreno Valley, noise-sensitive receivers potentially impacted by stationary/area-source noise activities are also located in the City of Perris. Therefore, to accurately describe the potential Project-related operational noise level contributions, this analysis presents the appropriate stationary/area-source noise standards for each jurisdiction adjacent to the Project site. The City of Moreno Valley and City of Perris Municipal Code stationary-source noise standards are provided in Appendices 3.1 and 3.2, respectively.

9.1.1 CITY OF MORENO VALLEY STATIONARY/AREA-SOURCE NOISE STANDARDS

The City of Moreno Valley Municipal Code, Chapter 11.80 *Noise Regulation*, provides performance standards and noise control guidelines for determining and mitigating non-transportation or stationary-source noise impacts from operations at private properties. The City of Moreno Valley Municipal Code defines *Maximum Sound Levels (in dB(A)) for Source Land Uses* in Table 11.80.030-2 for *Residential* and *Commercial* land uses. As defined by the Municipal Code, Section 11.80.020 *Definitions*, *Commercial* land use *means all uses of land not otherwise classified as residential,* and *Residential* land use *means all uses of land primarily for dwelling units, as well as hospitals, schools, colleges and universities, and places of religious assembly.* (13) For the purpose of this analysis, the Indian Street Commerce Center Project is considered *Commercial* land use since it is not classified as residential. Based on this standard, the operational noise level limits for commercial land use, from Table 11.80.030-2, of 65 dBA Leq during the daytime (8:00 a.m. to 10:00 p.m.) hours and 60 dBA Leq during the nighttime (10:01 p.m. to 7:59 a.m.) hours shall apply to the operational noise from the Project.

Further, Section 11.80.030 (C) *Prohibited Acts*, *Nonimpulsive Sound Decibel Limits*, states: *No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2 when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on a privately owned property…* (13) Therefore, at a distance of 200 feet from the property line, the Project's operational noise levels shall not exceed the 65 dBA Leq daytime and 60 dBA Leq nighttime noise level standards for commercial land uses, as previously shown on Table 3-1.

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9.1.2 CITY OF PERRIS STATIONARY/AREA-SOURCE NOISE STANDARDS

The City of Perris Municipal Code, Chapter 7.34 *Noise Control*, Section 7.34.040, establishes the permissible noise level that may intrude into a neighbor's property from the use of sound amplifying equipment. The Municipal Code exterior noise level criteria for residential properties affected by stationary/area noise sources is included in Section 7.34.050 *General Prohibition*, which states that the Section 7.34.040 sound amplifying equipment noise standards shall apply. Therefore, for residential properties, the exterior noise level shall not exceed the Section 7.34.040 80 dBA Leq during daytime hours (7:00 a.m. to 10:00 p.m.) and shall not exceed 60 dBA Leq during the nighttime hours (10:00 p.m. to 7:00 a.m.), as previously shown on Table 3-2. (14) The City of Perris Municipal Code is included in Appendix 3.2.

9.2 STATIONARY/AREA-SOURCE NOISE SOURCES

At the time this noise analysis was prepared the future tenants of the proposed Project were unknown. To present the potential worst-case noise conditions, this analysis assumes the Project would be operational 24 hours per day, seven days per week. Business operations would primarily be conducted within the enclosed buildings, with the exception of the loading and unloading of trucks at designated loading bays. The on-site Project-related noise sources are expected to include: idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods, and roof-top mechanical ventilation equipment.

9.3 REFERENCE NOISE LEVELS

Since the future tenants of the proposed Project are unknown, the Project's stationary/area-source noise levels were estimated based on reference noise level measurements of similar logistics warehouse buildings. The reference noise levels are intended to describe the expected stationary/area noise sources that may include idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods, and roof-top mechanical ventilation equipment. To estimate the Project off-site stationary/area-source noise impacts associated with the Indian Street Commerce Center, the following reference noise level measurements were collected, as shown on Table 9-1. Appendix 9.1 includes reference noise source photos for each distribution/warehouse location.

9.3.1 NATURE'S BEST DISTRIBUTION FACILITY (COLD STORAGE)

On Wednesday, January 7th, 2015, Urban Crossroads, Inc. collected short-term operational noise level measurements at the Nature's Best distribution facility located at 16081 Fern Avenue in the City of Chino. Operations at the Nature's Best distribution facility measurements represent the typical weekday logistics warehouse activities with both dry goods and cold storage from a single building with loading dock areas located on both sides of the building. To describe the loading dock activities, a reference noise level measurement was collected to represent the truck idling/reefer activity. A second reference noise level measurement at this location was collected to assess the entry gate noise source activity.

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TRUCK IDLING/REEFER ACTIVITY

During the fourteen minute truck idling/reefer activity reference noise level measurement, approximately twenty delivery trucks were docked, idling, or parked in the northern loading dock area. The truck idling/reefer activity reference noise level measurement was taken in the center of the loading dock activity area, and represents multiple concurrent noise sources resulting in a combined noise level of 70.1 dBA Leq.

Specifically, the truck idling/reefer activity reference noise level measurement represents one truck located approximately thirty feet from the noise level meter with another truck passing by to park roughly 20 feet away, both with their engines idling. Throughout the reference noise level measurement a separate docked and running reefer truck was located approximately 50 feet east of the measurement location. Additional background noise sources included truck pass-by noise, truck drivers talking to each other next to docked trucks, and air brake release noise when trucks parked.

ENTRY GATE ACTIVITY

The entry gate activity reference noise level measurement was taken over a ten minute period and represents the multiple noise sources associated with the eastern entry gate to the loading dock area of the Nature's Best distribution center producing a reference noise level of 69.2 dBA Leq. The entry gate activity noise sources included in this measurement account for the sound of the gates rattling and squeaking during normal opening and closing operations, the gate closure equipment, as well as the associated noise as trucks approach and stop at the gate.

9.3.2 MOTIVATIONAL FULFILLMENT & LOGISTICS SERVICES DISTRIBUTION FACILITY (DRY GOODS)

Additional short-term reference noise level measurements were collected on Wednesday, January 7th, 2015, by Urban Crossroads, Inc. at the Motivational Fulfillment & Logistics Services distribution facility located at 6810 Bickmore Avenue in the City of Chino. The noise level measurements represent the typical weekday dry goods logistics warehouse operation in a single building with a loading dock area on the western side of the building façade. Two reference noise level measurements were taken at this location, including entry gate activity and unloading/docking activity noise sources. Up to ten trucks were observed in the loading dock area including a combination of track trailer semi-trucks, two-axle delivery trucks, and background forklift operations.

ENTRY GATE ACTIVITY

The entry gate activity noise level measurement was taken at the southern entry gate over a fifteen minute period and represents multiple noise sources producing a reference noise level of 64.0 dBA Leq. The noise sources included at this measurement location account for the rattling and squeaking during normal opening and closing operations, the gate closure equipment, truck engines idling outside the entry gate, and background forklift backup alarm noise.

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UNLOADING/DOCKING ACTIVITY

The unloading/docking activity noise level measurement was taken over a fifteen minute period and represents multiple noise sources taken from the center of loading dock activities generating a reference noise level of 67.2 dBA Leq. At this measurement location, the noise sources associated with employees unloading a docked truck container included the squeaking of the truck's shocks when weight was removed from the truck, employees playing music over a radio, as well as a forklift horn and backup alarm. In addition, during the noise level measurement a truck entered the loading dock area and proceeded to reverse and dock in a nearby loading bay, adding truck engine and air brakes noise.

9.3.3 VEGFRESH FARMS / FEDEX DISTRIBUTION FACILITY

A fifth noise level measurement, taken on Tuesday, January 22, 2013, by Urban Crossroads, Inc. included 24-hour operational noise level measurements at the Veg Fresh Farms and FedEx distribution facility located at 500 East Orangethorpe Avenue in the City of Anaheim. The Veg Fresh Farms that includes cold storage and FedEx distribution center noise level measurement represent the typical weekday logistics warehouse operation over a 24-hour period consisting of buildings with over 150 loading bays (docks). The reference noise level measurement collected at this location was 69.1 dBA Leq.

9.3.4 ROOF-TOP AIR CONDITIONING UNITS

In order to assess the impacts created by the roof-top mechanical ventilation equipment at the Project site, reference noise levels measurements were taken at the Santee Walmart on July 27th, 2015. Located at 170 Town Center Parkway in the City of Santee, the noise level measurements describe a single mechanical roof-top air conditioning unit on the roof of an existing Walmart store. The reference noise level represents a Lennox SCA120 series 10-ton model packaged air conditioning unit. The reference noise level noise level at a distance of 5 feet from the unit was measured at 77.2 dBA Leq. The operating conditions of the reference noise level measurement reflect peak summer cooling requirements with measured temperatures approaching 96 degrees Fahrenheit (°F) with average daytime temperatures of 82°F. The roof-top air condition units were observed to operate the most during the daytime hours, for a total of 39 minutes per hour, and are anticipated to operate during the daytime and nighttime hours at the Project site. For the purpose of this noise analysis, the roof-top mechanical ventilation equipment is expected to be located on the roof at a noise elevation of 25 feet. The noise attenuation provided by a parapet wall is not reflected in this reference noise level measurement.

9.3.5 WORST-CASE REFERENCE DISTRIBUTION/WAREHOUSE NOISE LEVELS

In order to accommodate flexibility for future tenants, the reference noise level measurements for the proposed Project were chosen to represent worst-case industrial center stationary/area-source noise levels. To describe the worst-case Project-only stationary/area-source noise levels associated with the Indian Street Commerce Center Project, this analysis relies on a reference noise level of 70.1 dBA Leq at a distance of 30 feet representing truck idling/reefer activity taken at the Nature's Best distribution facility, in addition to the reference roof-top mechanical

ventilation equipment noise level of 77.2 dBA Leq at a distance of 5 feet. This analysis assumes all tenants within the Project buildings would be operational 24 hours per day, seven days per week. In addition, this analysis accounts for the noise associated with cold storage (refrigeration) as a worst-case scenario in case such use of the buildings is proposed by future tenants, and may conservatively overstate the actual noise levels due to tenant operations at the Project site.

While the specific noise levels at the Project site will depend on the actual tenant, the intensity and the daytime/nighttime hours of operation, the reference noise levels are used to describe the peak Project stationary/area-source noise activities since they represent similar operational characteristics. The reference noise levels are intended to describe noise level impacts associated with the expected typical warehouse and distribution storage operations at the Project site and do not account for any special noise generators.

TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS

Noise Source	Duration (hh:mm:ss)	Distance From Source (Feet)	Noise Source Height (Feet)	Noise Level (dBA Leq)
Truck Idle/Reefer Activity[1]	0:14:00	30'	8'	70.1
Entry Gate Activity[1]	0:10:00	20'	8'	69.2
Entry Gate Activity[2]	0:15:00	20'	8'	64.0
Unloading/Docking Activity[2]	0:15:00	30'	8'	67.2
Distribution/Warehouse Activity[3]	24:00:00	25'	8'	69.1
Roof-Top Mechanical Ventilation Equipment[4]	96:00:00	5'	25'	77.2

[1] Reference noise level measurements were collected from the existing operations of the Nature's Best distribution facility located at 16081 Fern Avenue in the City of Chino. The reference noise level measurements were collected on Wednesday, January 7, 2015.
[2] Reference noise level measurements were collected from the existing operations of the Motivational Fulfillment & Logistics Services distribution facility located at 6810 Bickmore Avenue in the City of Chino. The reference noise level measurements were collected on Wednesday, January 7, 2015.
[3] The reference noise level measurements include the daytime and nighttime noise levels associated with idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods. Reference noise level measurements were collected from the existing 24-hour operations of Veg Fresh Farms and FedEx distribution facility located at 500 East Orangethorpe Avenue in the City of Anaheim. The reference noise level measurements were collected on Tuesday, January 22, 2013.
[4] As measured by Urban Crossroads, Inc. on 7/27/2015 at the Santee Walmart located at 170 Town Center Parkway.

9.4 PROJECT STATIONARY/AREA-SOURCE NOISE LEVELS

Based upon the reference noise levels, it is possible to estimate the Project operational stationary-source noise levels at a distance of 200 feet and at each of the five noise receiver locations. The operational noise level calculations shown on Tables 9-2 and 9-3 account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. With geometric spreading, sound levels attenuate (or decrease) at a rate of 6 dB for each doubling of distance from a point source (idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods, and roof-top mechanical ventilation equipment).

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Table 9-2 presents the combined total operational noise level projections at a distance of 200 feet consistent with the City of Moreno Valley Municipal Code. The Project operational noise levels at a distance of 200 feet are estimated at 54.0 dBA Leq. Based on the results of this analysis, the Project operational noise levels associated with the Indian Street Commerce Center will satisfy the City of Moreno Valley Municipal Code 65 dBA Leq daytime and 60 dBA Leq nighttime exterior noise level standards at a distance 200 feet from the source land use.

TABLE 9-2: STATIONARY/AREA-SOURCE NOISE LEVEL PROJECTIONS AT A DISTANCE OF 200 FEET

Noise Source	Ref. Noise Level (dBA Leq)	Distance Atten. @ 200' (dBA Leq)[1]	Hourly Activity (Mins.)[2]	Hourly Activity Adjustment (dBA Leq)	Noise Level @ 200' (dBA Leq)
Truck Idle/Reefer Activity	70.1	-16.5	60	0.0	53.6
Roof-Top Mechanical Ventilation Equipment	77.2	-32.0	39	-1.9	43.3
Combined Total:					54.0

[1] Drop off rate of 6 dBA per doubling of distance (point source).
[2] Anticipated duration (minutes within the hour) of noise activity during peak hourly conditions expected at the Project site.

Table 9-3 indicates that the hourly noise levels associated with the Indian Street Commerce Center Project at the five sensitive receiver locations are expected to range from 27.4 to 31.9 dBA Leq. The Project-related stationary/area-source noise levels shown on Table 9-3 will satisfy the City of Moreno Valley 65 dBA Leq daytime and 60 dBA Leq nighttime, as well as the City of Perris 80 dBA Leq daytime and 60 dBA Leq nighttime exterior noise level standards at the nearby sensitive receiver locations. The stationary/area-source noise level calculations are included in Appendix 9.2.

TABLE 9-3: STATIONARY/AREA-SOURCE NOISE LEVEL PROJECTIONS AT RECEIVER LOCATIONS

Receiver Location[1]	Noise Sources[2]		Combined Stationary/Area-Source Noise Levels (dBA Leq)[3]
	Truck Idle/ Reefer Activity	Roof-Top Mechanical Ventilation Equipment	
R1	31.4	22.5	31.9
R2	28.9	18.2	29.3
R3	28.1	17.5	28.5
R4	29.2	18.8	29.6
R5	27.0	17.1	27.4

[1] See Exhibit 9-A for the receiver and noise source locations.
[2] Reference noise sources as shown on Table 9-1.
[3] Calculations for each noise source are provided in Appendix 9.2.

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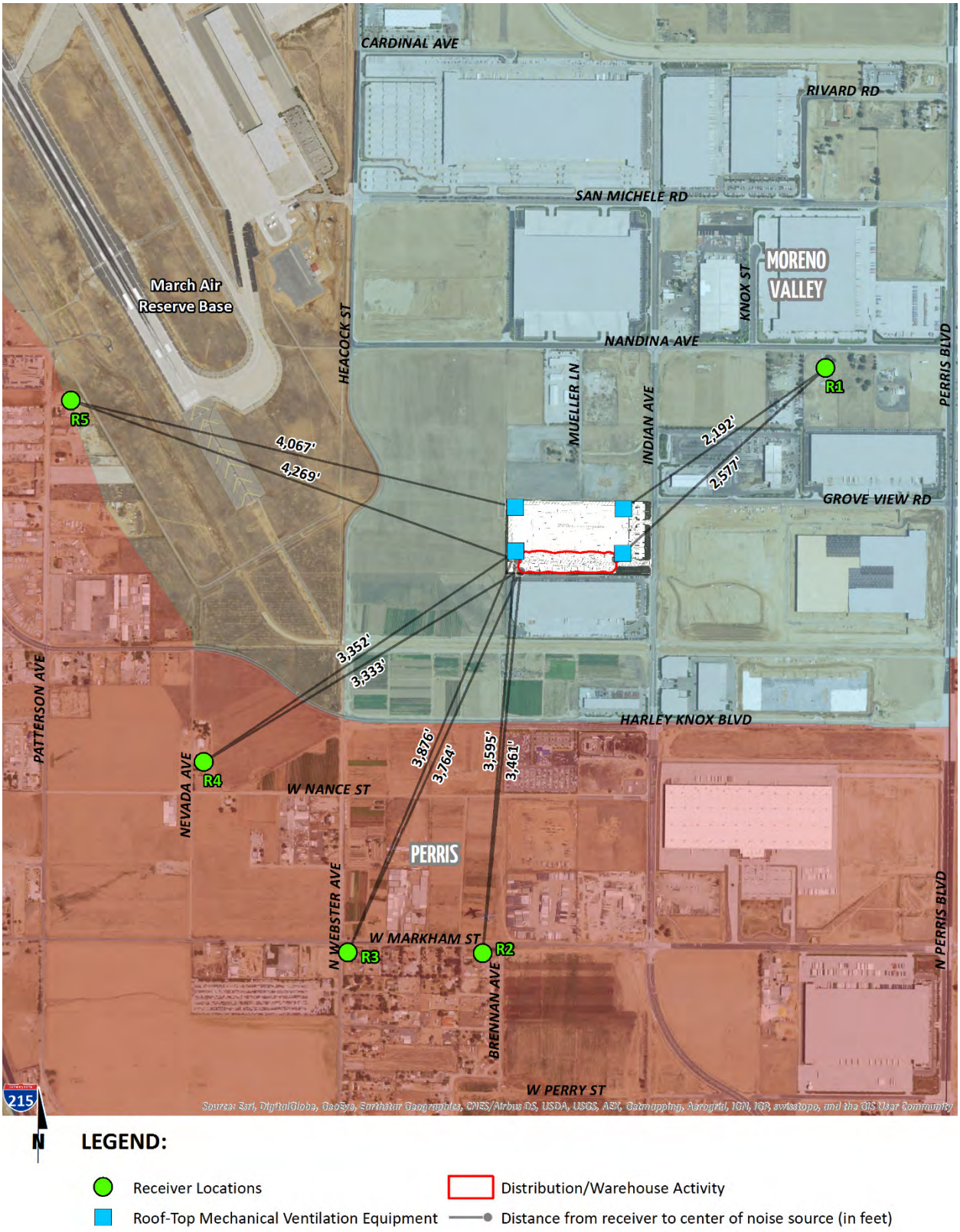
EXHIBIT 9-A: STATIONARY/AREA-SOURCE NOISE SOURCE LOCATIONS



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9.5 PROJECT STATIONARY/AREA-SOURCE NOISE LEVEL CONTRIBUTIONS

The Project-related noise level contribution is evaluated at each receiver location based on the magnitude of the Project-related increase on the ambient noise levels. To describe the Project operational noise level contributions, the Project operational noise levels were combined with the existing ambient noise level measurements at the sensitive receiver locations. The difference between the combined Project and ambient noise levels describe the Project noise level contributions. Noise levels that would be experienced at receiver locations when Project-source noise is added to ambient daytime and nighttime conditions are presented on Tables 9-4 and 9-5, respectively.

As indicated on Table 9-4, the Project is not expected to generate a daytime operational noise level contribution at the nearby receiver locations. Table 9-5 shows the Project is not expected to generate a nighttime operational noise level contribution at the nearby receiver locations. Therefore, the Project-related operational noise level contributions to the nighttime ambient noise levels at nearby sensitive receiver locations will not exceed the significance thresholds identified in Section 4. On this basis, Project operational stationary-source noise levels would not result in a substantial temporary/periodic, or permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.

TABLE 9-4: DAYTIME STATIONARY/AREA-SOURCE NOISE LEVEL CONTRIBUTIONS

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Contribution[6]	Threshold Exceeded?[7]
R1	31.9	L1	64.0	64.0	0.0	No
R2	29.3	L4	57.4	57.4	0.0	No
R3	28.5	L4	57.4	57.4	0.0	No
R4	29.6	L3	57.1	57.1	0.0	No
R5	27.4	L3	57.1	57.1	0.0	No

[1] See Exhibit 9-A for the sensitive receiver locations.
[2] Total Project operational noise levels as shown on Table 9-3.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed daytime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance Criteria as defined in Section 4.

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TABLE 9-5: NIGHTTIME STATIONARY/AREA-SOURCE NOISE LEVEL CONTRIBUTIONS

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Contribution[6]	Threshold Exceeded?[7]
R1	31.9	L1	62.9	62.9	0.0	No
R2	29.3	L4	57.2	57.2	0.0	No
R3	28.5	L4	57.2	57.2	0.0	No
R4	29.6	L3	56.5	56.5	0.0	No
R5	27.4	L3	56.5	56.5	0.0	No

[1] See Exhibit 9-A for the sensitive receiver locations.
[2] Total Project operational noise levels as shown on Table 9-3.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed nighttime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance Criteria as defined in Section 4.

9.6 STATIONARY/AREA-SOURCE VIBRATION IMPACTS

Although the human threshold of perception for vibration is around 65 VdB, human response to vibration is not usually significant unless the vibration exceeds 70 VdB. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement condition. Typical vibration levels for heavy trucks at normal traffic speeds do not exceed 65 VdB, and therefore, will be below the FTA vibration threshold of 80 VdB at nearby sensitive receiver locations. Truck deliveries transiting on site will be travelling at very low speeds so it is expected that delivery truck vibration impacts at nearby homes will not exceed the 80 VdB vibration threshold.

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10 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project.

10.1 CONSTRUCTION NOISE STANDARDS

To accurately describe the potential Project-related construction noise level contributions to the existing noise environment, this analysis presents the appropriate construction noise standards for each jurisdiction adjacent to the Project site including: the City of Moreno Valley and the City of Perris.

10.1.1 CITY OF MORENO VALLEY CONSTRUCTION NOISE STANDARDS

To analyze noise impacts originating from the construction of the Indian Street Commerce Center Project, noise from construction activities are typically limited to the hours of operation established under a City's Municipal Code. The Municipal Code noise standards for construction are described below for the City of Moreno Valley to determine the potential noise impacts at nearby sensitive receiver locations. As a subset of its stationary-source noise regulations, the City Municipal Code establishes additional restrictions on construction-source noise. More specifically, Municipal Code Section 11.80.030 (D) (7), *Construction and Demolition*, provides the following:

> *No person shall operate or cause operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city manager or designee.*

A *noise disturbance*, as defined by the City of Moreno Valley Municipal Code, means any sound which:

- *Disturbs a reasonable person of normal sensitivities;*
- *Exceeds the sound level limits set forth in this chapter [Table 11.80.030-2];*
- *Is plainly audible as defined in this section. Where no specific distance is set forth for the determination of audibility, references to noise disturbance shall be deemed to mean plainly audible at a distance of two hundred (200) feet from the real property line of the source of the sound, if the sound occurs on a privately owned property, or from the source of the sound, if the sound occurs on public right, public space or other publicly owned property.*

Therefore, based on the Section 11.80.030 (D) (7) construction regulations, a construction-related *noise disturbance* occurs when the noise levels exceed the *commercial* land use criteria of 65 dBA Leq during the daytime hours and 60 dBA Leq during the nighttime hours at a distance of 200 feet from the property line of the source (Project site). In addition, grading operations shall be limited to the hours identified in Section 8.21.050 (O) of 7:00 a.m. to 6:00 p.m., Monday through Friday, and 8:00 a.m. to 4:00 p.m. on weekends and holidays or as approved by the City

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Engineer. The City of Moreno Valley construction noise standards are previously shown on Table 3-3 and included in Appendix 3.1.

10.1.2 City of Perris Construction Noise Standards

The City of Perris Municipal Code, Section 7.34.060, identifies the City's construction noise standards and permitted hours of construction activity. Since the Project site is located in the City of Moreno Valley, the City of Perris would not have jurisdictional control over permitted hours of Project construction. Notwithstanding, the City of Perris Municipal Code, Section 7.34.060, noise level standard of 80 dBA Leq at residential properties would apply to the noise-sensitive receiver locations located in the City of Perris. (14)

10.2 Construction Noise Levels

Noise generated by the Project construction equipment will include a combination of trucks, power tools, concrete mixers and portable generators that when combined can reach high levels. The number and mix of construction equipment is expected to occur in each the following five stages within the Project site:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

This construction noise analysis was prepared using reference noise level measurements taken by Urban Crossroads, Inc. to describe the typical construction activity noise levels for each stage of Project construction. The construction reference noise level measurements, provided in Appendix 10.1, represent a list of typical construction activity noise levels. Noise levels generated by heavy construction equipment can range from approximately 56 dBA to in excess of 68 dBA when measured at 200 feet. However, these noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 68 dBA measured at 200 feet from the noise source to the receiver would be reduced to 62 dBA at 400 feet from the source to the receiver, and would be further reduced to 56 dBA at 800 feet from the source to the receiver. The types of equipment for each construction stage are generally consistent with the data used to support the construction emissions in the *Indian Street Commerce Center Air Quality Impact Analysis* prepared by Urban Crossroads Inc. (20)

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10.3 CONSTRUCTION REFERENCE NOISE LEVELS

To describe the Project construction noise levels, measurements were collected for similar activities at several construction sites. Table 10-1 provides a summary of the fifteen construction reference noise level measurements. Since the reference noise levels were collected at varying distances, all construction noise level measurements presented on Table 10-1 have been adjusted to describe a common reference distance of 50 feet. Appendix 10.1 includes a detailed construction reference noise level memo and reference noise source photos for each type of construction activity.

TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS

ID	Noise Source	Reference Distance From Source (Feet)	Reference Noise Levels @ Reference Distance		Reference Noise Levels @ 50 Feet[5]	
			dBA Leq	dBA Lmax	dBA Leq	dBA Lmax
1	Truck Pass-Bys & Dozer Activity[1]	30'	63.6	68.1	59.2	63.7
2	Dozer Activity[1]	30'	68.6	76.4	64.2	72.0
3	Construction Vehicle Maintenance Activities[2]	30'	71.9	74.8	67.5	70.4
4	Foundation Trenching[2]	30'	72.6	74.9	68.2	70.5
5	Rough Grading Activities[2]	30'	77.9	84.8	73.5	80.4
6	Water Truck Pass-By & Backup Alarm[3]	30'	76.3	82.3	71.9	77.9
7	Dozer Pass-By[3]	30'	84.0	89.9	79.6	85.5
8	Two Scrapers & Water Truck Pass-By[3]	30'	83.4	89.0	79.0	84.6
9	Two Scrapers Pass-By[3]	30'	83.7	86.9	79.3	82.5
10	Scraper, Water Truck, & Dozer Activity[3]	30'	79.7	87.7	75.3	83.3
11	Concrete Mixer Truck Movements[4]	50'	71.2	73.1	71.2	73.1
12	Concrete Paver Activities[4]	30'	70.0	75.7	65.6	71.3
13	Concrete Mixer Pour & Paving Activities[4]	30'	70.3	76.3	65.9	71.9
14	Concrete Mixer Backup Alarms & Air Brakes[4]	50'	71.6	78.8	71.6	78.8
15	Concrete Mixer Pour Activities[4]	50'	67.7	79.2	67.7	79.2

[1] As measured by Urban Crossroads, Inc. on 10/14/15 at a business park construction site located at the northwest corner of Barranca Parkway and Alton Parkway in the City of Irvine.
[2] As measured by Urban Crossroads, Inc. on 10/20/15 at a construction site located in Rancho Mission Viejo.
[3] As measured by Urban Crossroads, Inc. on 10/30/15 at an industrial construction site located in the City of Ontario.
[4] Reference noise level measurements were collected from a nighttime concrete pour at an industrial construction site, located at 27334 San Bernardino Avenue in the City of Redlands, between 1:00 a.m. to 2:00 a.m. on 7/1/15.
[5] Reference noise levels are calculated at 50 feet using a drop off rate of 6 dBA per doubling of distance (point source).

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10.4 Construction Noise Analysis

Using the reference construction equipment noise levels calculations of the Project construction noise level impacts at 200 feet from the Project site boundary and at the five sensitive receiver locations were completed. Tables 10-2 to 10-6 present the short-term construction noise levels for each stage of construction. Table 10-7 provides a summary of the construction noise levels by phase at the five noise receiver locations. Based on the five stages of construction, the noise impacts associated with the proposed Project are expected to create temporarily high noise levels at the nearby receiver locations. This analysis identifies the highest reference construction equipment noise level for each stage of construction using the reference noise levels provided in Appendix 10.1, based on the construction stages used in the *Indian Street Commerce Center Air Quality Impact Analysis*. To assess the peak construction noise levels at each receiver location, this analysis shows the highest noise impacts when the equipment with the highest reference noise level is operating at the Project site boundary for each stage of construction.

TABLE 10-2: SITE PREPARATION EQUIPMENT NOISE LEVELS

Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)	Noise Level @ 200 Feet (dBA Leq)
Truck Pass-Bys & Dozer Activity	59.2	47.1
Dozer Activity	64.2	52.1
Water Truck Pass-By & Backup Alarm	71.9	59.8
Dozer Pass-By	79.6	67.5
Peak Reference Noise Level at 200 Feet (dBA Leq)		67.5
Distance to 65 dBA Leq Contour (Feet)		267'

Receiver Location	Distance To Construction Activity (Feet)[2]	Distance Attenuation (dBA)[3]	Estimated Noise Barrier Attenuation (dBA)[4]	Construction Noise Level (dBA Leq)
R1	1,968'	-19.9	0.0	47.7
R2	3,380'	-24.6	0.0	43.0
R3	3,645'	-25.2	0.0	42.3
R4	3,171'	-24.0	0.0	43.5
R5	3,964'	-25.9	0.0	41.6

[1] Reference construction noise level measurements taken by Urban Crossroads, Inc. (Appendix 10.1).
[2] Distance from the nearest point of construction activity to the nearest receiver.
[3] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.
[4] Estimated barrier attenuation from existing barriers in the Project study area.

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TABLE 10-3: GRADING EQUIPMENT NOISE LEVELS

Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)	Noise Level @ 200 Feet (dBA Leq)
Truck Pass-Bys & Dozer Activity	59.2	47.1
Dozer Activity	64.2	52.1
Rough Grading Activities	73.5	61.4
Water Truck Pass-By & Backup Alarm	71.9	59.8
Dozer Pass-By	79.6	67.5
Peak Reference Noise Level at 200 Feet (dBA Leq)		67.5
Distance to 65 dBA Leq Contour (Feet)		267'

Receiver Location	Distance To Construction Activity (Feet)[2]	Distance Attenuation (dBA)[3]	Estimated Noise Barrier Attenuation (dBA)[4]	Construction Noise Level (dBA Leq)
R1	1,968'	-19.9	0.0	47.7
R2	3,380'	-24.6	0.0	43.0
R3	3,645'	-25.2	0.0	42.3
R4	3,171'	-24.0	0.0	43.5
R5	3,964'	-25.9	0.0	41.6

[1] Reference construction noise level measurements taken by Urban Crossroads, Inc. (Appendix 10.1).
[2] Distance from the nearest point of construction activity to the nearest receiver.
[3] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.
[4] Estimated barrier attenuation from existing barriers in the Project study area.

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TABLE 10-4: BUILDING CONSTRUCTION EQUIPMENT NOISE LEVELS

Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)	Noise Level @ 200 Feet (dBA Leq)
Foundation Trenching	68.2	56.1
Two Scrapers & Water Truck Pass-By	79.0	66.9
Two Scrapers Pass-By	79.3	67.2
Peak Reference Noise Level at 200 Feet (dBA Leq)		67.2
Distance to 65 dBA Leq Contour (Feet)		258'

Receiver Location	Distance To Construction Activity (Feet)[2]	Distance Attenuation (dBA)[3]	Estimated Noise Barrier Attenuation (dBA)[4]	Construction Noise Level (dBA Leq)
R1	1,968'	-19.9	0.0	47.4
R2	3,380'	-24.6	0.0	42.7
R3	3,645'	-25.2	0.0	42.0
R4	3,171'	-24.0	0.0	43.2
R5	3,964'	-25.9	0.0	41.3

[1] Reference construction noise level measurements taken by Urban Crossroads, Inc. (Appendix 10.1).
[2] Distance from the nearest point of construction activity to the nearest receiver.
[3] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.
[4] Estimated barrier attenuation from existing barriers in the Project study area.

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TABLE 10-5: PAVING EQUIPMENT NOISE LEVELS

Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)	Noise Level @ 200 Feet (dBA Leq)
Concrete Mixer Truck Movements	71.2	59.2
Concrete Paver Activities	65.6	53.5
Concrete Mixer Pour & Paving Activities	65.9	53.8
Concrete Mixer Backup Alarms & Air Brakes	71.6	59.6
Concrete Mixer Pour Activities	67.7	55.7
Peak Reference Noise Level at 200 Feet (dBA Leq)		59.6
Distance to 65 dBA Leq Contour (Feet)		107'

Receiver Location	Distance To Construction Activity (Feet)[2]	Distance Attenuation (dBA)[3]	Estimated Noise Barrier Attenuation (dBA)[4]	Construction Noise Level (dBA Leq)
R1	1,968'	-19.9	0.0	39.7
R2	3,380'	-24.6	0.0	35.0
R3	3,645'	-25.2	0.0	34.3
R4	3,171'	-24.0	0.0	35.6
R5	3,964'	-25.9	0.0	33.6

[1] Reference construction noise level measurements taken by Urban Crossroads, Inc. (Appendix 10.1).
[2] Distance from the nearest point of construction activity to the nearest receiver.
[3] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.
[4] Estimated barrier attenuation from existing barriers in the Project study area.

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TABLE 10-6: ARCHITECTURAL COATING EQUIPMENT NOISE LEVELS

Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)	Noise Level @ 200 Feet (dBA Leq)
Construction Vehicle Maintenance Activities	67.5	55.4
Foundation Trenching	68.2	56.1
Peak Reference Noise Level at 200 Feet (dBA Leq)		56.1
Distance to 65 dBA Leq Contour (Feet)		72'

Receiver Location	Distance To Construction Activity (Feet)[2]	Distance Attenuation (dBA)[3]	Estimated Noise Barrier Attenuation (dBA)[4]	Construction Noise Level (dBA Leq)
R1	1,968'	-19.9	0.0	36.3
R2	3,380'	-24.6	0.0	31.6
R3	3,645'	-25.2	0.0	30.9
R4	3,171'	-24.0	0.0	32.1
R5	3,964'	-25.9	0.0	30.2

[1] Reference construction noise level measurements taken by Urban Crossroads, Inc. (Appendix 10.1).
[2] Distance from the nearest point of construction activity to the nearest receiver.
[3] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.
[4] Estimated barrier attenuation from existing barriers in the Project study area.

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10.5 Construction Noise Thresholds of Significance

The construction noise analysis shows that the highest construction noise levels will occur when demolition equipment is operating at the Project site boundary. As shown on Table 10-7, the unmitigated peak construction noise levels are expected to range from 56.1 to 67.5 dBA Leq at a distance of 200 feet from the Project site boundary. This shows that Project construction may exceed the 65 dBA Leq daytime City of Moreno Valley Municipal Code standard when equipment is operating at the Project site boundary. However, there are no sensitive receiver locations located within 200 feet of the Project site boundary. Further, the construction noise levels experienced at the nearby sensitive receiver locations are expected to range from 41.6 to 47.7 dBA Leq, as shown on Table 10-7, and will not exceed the 65 dBA Leq daytime City of Moreno Valley Municipal Code standard or the 80 dBA Leq City of Perris Municipal Code standard for construction activity.

TABLE 10-7: UNMITIGATED CONSTRUCTION NOISE LEVEL SUMMARY (DBA LEQ)

Receiver Location	Distance To Receiver (Feet)	Construction Noise Levels (dBA Leq)					
		Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Peak
@200'	200'	67.5	67.5	67.2	59.6	56.1	67.5
R1	1,968'	47.7	47.7	47.4	39.7	36.3	47.7
R2	3,380'	43.0	43.0	42.7	35.0	31.6	43.0
R3	3,645'	42.3	42.3	42.0	34.3	30.9	42.3
R4	3,171'	43.5	43.5	43.2	35.6	32.1	43.5
R5	3,964'	41.6	41.6	41.3	33.6	30.2	41.6

10.6 Construction Vibration Impacts

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. The proposed Project's construction activities most likely to cause vibration impacts are:

- Heavy Construction Equipment: Although all heavy mobile construction equipment has the potential of causing at least some perceptible vibration while operating close to buildings, the vibration is usually short-term and is not of sufficient magnitude to cause building damage. It is not expected that heavy equipment such as large bulldozers would operate close enough to any residences or buildings to cause a vibration impact.
- Trucks: Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes. Repairing the bumps and potholes generally eliminates the problem.

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Ground-borne vibration levels resulting from construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration. Construction activities that would have the potential to generate low levels of ground-borne vibration within the Project site include grading and paving. Using the vibration source levels of construction equipment provided on Table 6-7 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration impacts. Table 10-8 presents the expected Project related vibration levels at the five receiver locations.

Based on the reference vibration levels provided by the FTA, a large bulldozer represents the peak source of vibration with a reference level of 87 VdB at a distance of 25 feet. At distances ranging from 1,968 to 3,964 feet from the Project site, construction vibration levels are expected to range from 21.0 to 30.1 VdB. Using the construction vibration assessment methods provided by the FTA the proposed Project site will not include or require equipment, facilities, or activities that would result in a perceptible human response (annoyance). The construction of the Project is not expected to generate vibration levels exceeding the FTA maximum acceptable vibration standard of 80 (VdB).

TABLE 10-8: CONSTRUCTION EQUIPMENT VIBRATION LEVELS (VDB)

Receiver Location[1]	Distance To Construction Activity (Feet)	Receiver Vibration Levels (VdB)[2]					Threshold Exceeded?[3]
		Small Bulldozer	Jackhammer	Loaded Trucks	Large Bulldozer	Peak Vibration	
R1	1,968'	1.1	22.1	29.1	30.1	30.1	No
R2	3,380'	0.0	15.1	22.1	23.1	23.1	No
R3	3,645'	0.0	14.1	21.1	22.1	22.1	No
R4	3,171'	0.0	15.9	22.9	23.9	23.9	No
R5	3,964'	0.0	13.0	20.0	21.0	21.0	No

[1] Noise receiver locations are shown on Exhibit 8-A.
[2] Based on the Vibration Source Levels of Construction Equipment included on Table 6-7.
[3] Does the peak vibration exceed the FTA maximum acceptable vibration standard of 80 VdB?

The vibration levels due to Project construction do not represent vibration levels capable of causing building damage to nearby existing buildings. The FTA identifies construction vibration levels capable of building damage ranging from 0.12 to 0.5 in/sec PPV. (8) The peak Project-construction vibration levels shown on Table 10-9, approaching 0.02 in/sec PPV, will not exceed the FTA vibration levels for building damage at the buildings closest to the Project site, or the closest sensitive receiver locations. Further, the impacts at the site of the closest sensitive receivers are unlikely to be sustained during the entire construction period, but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter. Construction at the Project site will be restricted to daytime hours consistent with City requirements thereby eliminating potential vibration impact during the sensitive nighttime hours.

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TABLE 10-9: CONSTRUCTION EQUIPMENT VIBRATION LEVELS (IN/SEC PPV)

Receiver[1]	Distance To Const. Activity (Feet)	Receiver PPV Levels (in/sec)[2]					Threshold Exceeded?[3]
		Small Bulldozer	Jack-hammer	Loaded Trucks	Large Bulldozer	Peak Vibration	
Northeast Bldg.	215'	0.000	0.001	0.003	0.004	0.004	No
iHerb Inc. Bldg.	65'	0.001	0.008	0.018	0.021	0.021	No
R1	1,968'	0.000	0.000	0.000	0.000	0.000	No
R2	3,380'	0.000	0.000	0.000	0.000	0.000	No
R3	3,645'	0.000	0.000	0.000	0.000	0.000	No
R4	3,171'	0.000	0.000	0.000	0.000	0.000	No
R5	3,964'	0.000	0.000	0.000	0.000	0.000	No

[1] Receiver locations are shown on Exhibit 9-A.
[2] Based on the Vibration Source Levels of Construction Equipment included on Table 6-7.
[3] Does the peak vibration exceed the maximum acceptable vibration threshold of 0.12 in/sec PPV?

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11 FINDINGS AND CONCLUSIONS

This report evaluated the potential noise impacts associated with the development of the proposed Project including Project related traffic noise, stationary noise impacts and temporary construction noise impacts. This section summarizes the significance criteria and Project noise impacts.

11.1 OFF-SITE TRAFFIC NOISE ANALYSIS

Traffic generated by the proposed Project will influence the traffic noise levels in surrounding off-site areas. To quantify the off-site traffic noise increases on the surrounding off-site areas, the changes in traffic noise levels on 12 roadway segments surrounding the Project site were estimated based on the change in the average daily traffic (ADT) volumes. The traffic noise levels provided in this analysis are based on the traffic forecasts found in the *Indian Street Commerce Center Traffic Impact Analysis* prepared by Urban Crossroads, Inc. (2) To assess the off-site noise level impacts associated with the proposed Project, noise contour boundaries were developed for Existing and Opening Year 2020 traffic conditions. Under all of the evaluated scenarios Project traffic would not cause or result in an exceedance of applicable thresholds. That is, Project traffic would not cause or result in increased noise levels that would exceed the 65 dBA CNEL threshold condition. Nor would Project traffic cause or result in increased noise levels of greater than 1.5 dBA CNEL when the without-Project condition already exceeds 65 dBA CNEL.

11.1.1 ON-SITE TRAFFIC NOISE ANALYSIS

The Opening Year 2020 with Project off-site traffic noise levels at the roadway segment closest to the Project site, Indian Street south of Grove View Road, will approach 82.5 dBA CNEL. The OPR *General Plan Guidelines, Appendix C: Noise Element Guidelines*, previously discussed in Section 3.3.1, indicate that industrial land use is considered *normally unacceptable* with exterior noise levels above 80 dBA CNEL. However, the Project's industrial land use does not contain outdoor living areas identified by the OPR which require exterior noise mitigation. The Project must still comply with the interior noise reduction requirements of the 2014 State of California's Green Building Standards Code for non-residential land uses experiencing 65 dBA CNEL or greater noise levels, as previously described in Section 3.2. Therefore, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies of the Project building must be at least 50 to satisfy the 2014 State of California's Green Building Standards Code. (10)

11.2 STATIONARY/AREA-SOURCE NOISE ANALYSIS

Using reference noise levels to represent the noise sources from the Indian Street Commerce Center site, this analysis estimates the Project-related 24-hour operational stationary/area-source noise levels at nearby sensitive receiver locations. The normal activities associated with the proposed Indian Street Commerce Center are anticipated to include idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods, and roof-top mechanical ventilation equipment. The analysis shows that the Project-related operational noise levels will satisfy the City of Moreno Valley and the City of

Perris Municipal Code noise level standards at the sensitive receivers nearest the Project site. Further, this analysis demonstrates that the Project would not contribute an operational noise level impact to the existing ambient noise environment at any of the sensitive receiver locations.

11.3 CONSTRUCTION NOISE AND VIBRATION ANALYSIS

Construction noise represents a short-term increase on the ambient noise levels. Construction-related noise impacts are expected to create temporary and intermittent high-level noise conditions at receivers surrounding the Project site when certain activities occur at the Project site boundary. Using sample reference noise levels to represent the planned construction activities of the Indian Street Commerce Center site, this analysis estimates the Project-related construction noise levels at nearby sensitive receiver locations. The construction noise analysis shows that the unmitigated daytime construction activities may exceed the City of Moreno Valley Municipal Code 65 dBA Leq noise level threshold at 200 feet, however, there are no sensitive receiver locations located within 200 feet of the Project site boundary. Further, the construction noise levels experienced at the nearby sensitive receiver locations are expected to range from 41.6 to 47.7 dBA Leq, as shown on Table 10-7, and will not exceed the 65 dBA Leq daytime City of Moreno Valley Municipal Code standard or the 80 dBA Leq City of Perris Municipal Code standard for construction activity.

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. This analysis shows the construction vibration levels are expected to approach 30.1 VdB at the five receiver locations. Based on the FTA vibration standards of 80 VdB, the proposed Project construction activities will not include or require equipment, facilities, or activities that would result in a *barely perceptible* human response (annoyance).

The vibration levels due to Project construction do not represent vibration levels capable of causing building damage to nearby existing buildings. This analysis shows the construction vibration levels are expected to approach 0.02 in/sec PPV at the nearby existing buildings and the five sensitive receiver locations. Based on the FTA vibration standards of 0.12 in/sec PPV for building damage, the proposed Project construction activities will not include or require equipment, facilities, or activities that would result in building damage to nearby existing structures.

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12 REFERENCES

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3. **California Department of Transportation Environmental Program.** *Technical Noise Supplement - A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA : s.n., September 2013.

4. **Environmental Protection Agency Office of Noise Abatement and Control.** *Information on Levels of Environmental Noise Requsite to Protect Public Health and Welfare with an Adequate Margin of Safety.* March, 1974. EPA/ONAC 550/9/74-004.

5. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, Noise and Air Quality Branch.** *Highway Traffic Noise Analysis and Abatement Policy and Guidance.* June, 1995.

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7. **U.S. Environmental Protection Agency Office of Noise Abatement and Control.** *Noise Effects Handbook-A Desk Reference to Health and Welfare Effects of Noise.* October 1979 (revised July 1981). EPA 550/9/82/106.

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9. **Office of Planning and Research.** *State of California General Plan Guidlines 2003.* October 2003.

10. **State of California.** *2014 California Green Building Standards Code.* January 2014.

11. **City of Moreno Valley.** *General Plan Safety Element.* October 2006.

12. **City of Perris.** *General Plan Noise Element.* August 2005.

13. **City of Moreno Valley.** *Municipal Code, Chapter 11.80 Noise Regulation.*

14. **City of Perris.** *Municipal Code, Chapter 7.34 Noise Control.*

15. **Riverside County.** *Airport Land Use Compatibility Plan.* October 2004.

16. **American National Standards Institute (ANSI).** *Specification for Sound Level Meters ANSI S1.4-2014/IEC 61672-1:2013.*

17. **U.S. Department of Transportation, Federal Highway Administration.** *FHWA Highway Traffic Noise Prediction Model.* December 1978. FHWA-RD-77-108.

18. **California Department of Transportation Environmental Program, Office of Environmental Engineering.** *Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction.* September 1995. TAN 95-03.

19. **California Department of Transportation.** *Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report.* June 1995. FHWA/CA/TL-95/23.

20. **Urban Crossroads, Inc.** *Indian Street Commerce Center Air Quality Impact Analysis.* January 2016.

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13 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Indian Street Commerce Center Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 366-5979.

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URBAN CROSSROADS, INC.
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Irvine, CA 92606
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STATEMENT OF QUALIFICATIONS

Bill Lawson is a Registered Professional Traffic Engineer and a Certified Acoustical Consultant. His educational background includes a Master's Degree in Civic and Environmental Engineering and a Bachelor's Degree in City and Regional Planning from Cal Poly San Luis Obispo. Mr. Lawson maintains a wide range of technical expertise that includes transportation planning, traffic engineering, neighborhood traffic control, and noise impact analysis.

EDUCATION

Master of Science in Civil and Environmental Engineering
California Polytechnic State University, San Luis Obispo • December, 1993

Bachelor of Science in City and Regional Planning
California Polytechnic State University, San Luis Obispo • June, 1992

PROFESSIONAL REGISTRATIONS

PE – Registered Professional Traffic Engineer – TR 2537 • January, 2009
AICP – American Institute of Certified Planners – 013011 • June, 1997–January 1, 2012
PTP – Professional Transportation Planner • May, 2007 – May, 2013
INCE – Institute of Noise Control Engineering • March, 2004

PROFESSIONAL AFFILIATIONS

ASA – Acoustical Society of America
ITE – Institute of Transportation Engineers

PROFESSIONAL CERTIFICATIONS

Certified Acoustical Consultant – County of Orange • February, 2011
FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013

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APPENDIX 3.1:

CITY OF MORENO VALLEY MUNICIPAL CODE

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Moreno Valley Municipal Code

Title 11 PEACE, MORALS AND SAFETY

Chapter 11.80 NOISE REGULATION

11.80.010 Legislative findings.

It is found and declared that:

A. Excessive sound within the limits of the city is a condition which has existed for some time, and the amount and intensity of such sound is increasing.

B. Such excessive sound is a detriment to the public health, safety, and welfare and quality of life of the residents of the city.

C. The necessity in the public interest for the provisions and prohibitions hereinafter contained and enacted is declared as a matter of legislative determination and public policy, and it is further declared that the provisions and prohibitions hereinafter contained and enacted are in pursuance of and for the purpose of securing and promoting the public health, safety, welfare and quality of life of the city and its inhabitants. (Ord. 740 § 1.2, 2007)

11.80.020 Definitions.

For purposes of this chapter, certain words and phrases used herein are defined as follows:

“A-weighted sound level” means the sound pressure level in decibels as measured with a sound level meter using the A-weighting network. The unit of measurement is the dB(A).

“Commercial” means all uses of land not otherwise classified as residential, as defined in this section.

“Construction” means any site preparation, and/or any assembly, erection, repair, or alteration, excluding demolition, of any structure, or improvements to real property.

“Continuous airborne sound” means sound that is measured by the slow-response setting of a meter manufactured to the specifications of ANSI Section 1.4-1983 (R2006) “Specification for Sound Level Meters,” or its successor.

“Daytime” means eight a.m. to ten p.m. the same day.

“Decibel” (dB) means a unit for measuring the amplitude of sound, equal to twenty (20) times the logarithm to the base ten (10) of the ratio of the pressure of the sound measured to the reference pressure, which is twenty (20) microPascals (twenty (20) microNewtons per square meter.)

“Demolition” means any dismantling, intentional destruction or removal of structures or other improvements to real property.

“Disturb” means to interrupt, interfere with, or hinder the enjoyment of peace or quiet or the normal listening activities or the sleep, rest or mental concentration of the hearer.

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"Emergency" means any occurrence or set of circumstances involving actual or imminent physical trauma or significant property damage which necessitates immediate action. Economic loss alone shall not constitute an emergency. It shall be the burden of an alleged violator to prove an "emergency."

"Emergency work" means any work made necessary to restore property to a safe condition following an emergency, or to protect persons or property threatened by an imminent emergency, to the extent such work is, in fact, necessary to protect persons or property from exposure to imminent danger or damage.

"Frequency" means the number of complete oscillation cycles per unit of time.

"Impulsive sound" means sound of short duration, usually less than one second, with an abrupt onset and rapid decay. Examples of sources of impulsive sound include explosions, drop forge impacts, and discharge of firearms.

"Nighttime" means 10:01 p.m. to 7:59 a.m. the following day.

"Noise disturbance" means any sound which:

1. Disturbs a reasonable person of normal sensitivities;
2. Exceeds the sound level limits set forth in this chapter; or
3. Is plainly audible as defined in this section. Where no specific distance is set forth for the determination of audibility, references to noise disturbance shall be deemed to mean plainly audible at a distance of two hundred (200) feet from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right of way, public space or other publicly owned property.

"Person" means any person, person's firm, association, copartnership, joint venture, corporation, or any entity public or private in nature.

"Plainly audible" means that the sound or noise produced or reproduced by any particular source, can be clearly distinguished from ambient noise by a person using his/her normal hearing faculties.

"Public right-of-way" means any street, avenue, boulevard, sidewalk, bike path or alley, or similar place normally accessible to the public which is owned or controlled by a governmental entity.

"Public space" means any park, recreational or community facility, or lot which contains at least one building that is open to the general public during its hours of operation.

"Residential" means all uses of land primarily for dwelling units, as well as hospitals, schools, colleges and universities, and places of religious assembly.

"Sound" means an oscillation in pressure, particle displacement, particle velocity or other physical parameter, in a medium with internal forces that causes compression and rarefaction of that medium capable of producing an auditory impression. The description of sound may include any characteristic of such sound, including duration, intensity and frequency.

"Sound level" means the weighted sound pressure level as measured in dB(A) by a sound level meter and as specified in American National Standards Institute (ANSI) specifications for sound-level meters (ANSI Section 1.4-1971 (R1976)). If the frequency weighting employed is not indicated, the A-weighting shall apply.

"Sound level meter" means an instrument, demonstrably capable of accurately measuring sound levels as defined above.

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All technical definitions not defined above shall be in accordance with applicable publications and standards of the American National Standards Institute (ANSI). (Ord. 740 § 1.2, 2007)

11.80.030 Prohibited acts.

A. General Prohibition. It is unlawful and a violation of this chapter to maintain, make, cause, or allow the making of any sound that causes a noise disturbance, as defined in Section 11.80.020.

B. Sound causing permanent hearing loss.

1. Sound level limits. Based on statistics from the Center for Disease Control and Prevention and the National Institute for Occupational Safety and Health, Table 1 and Table 1-A specify sound level limits which, if exceeded, will have a high probability of producing permanent hearing loss in anyone in the area where the sound levels are being exceeded. No sound shall be permitted within the city which exceeds the parameters set forth in Tables 11.80.030-1 and 11.80.030-1-A of this chapter:

Table 11.80.030-1

MAXIMUM CONTINUOUS SOUND LEVELS*

Duration per Day Continuous Hours	Sound level [db(A)]
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
0.25	115

* When the daily sound exposure is composed of two or more periods of sound exposure at different levels, the combined effect of all such periods shall constitute a violation of this section if the sum of the percent of allowed period of sound exposure at each level exceeds 100 percent

Table 11.80.030-1A

MAXIMUM IMPULSIVE SOUND LEVELS

Number of Repetitions per 24-Hour Period	Sound level [dB(A)]

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1	145
10	135
100	125

2. Exemptions. No violation shall exist if the only persons exposed to sound levels in excess of those listed in Tables 11.80.030-1 and 11.80.030-1A are exposed as a result of:

a. Trespass;

b. Invitation upon private property by the person causing or permitting the sound; or

c. Employment by the person or a contractor of the person causing or permitting the sound.

C. Nonimpulsive Sound Decibel Limits. No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimplusive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2 when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance.

Table 11.80.030-2

MAXIMUM SOUND LEVELS (IN dB(A)) FOR SOURCE LAND USES

Residential		Commercial	
Daytime	Nighttime	Daytime	Nighttime
60	55	65	60

D. Specific Prohibitions. In addition to the general prohibitions set out in subsection A of this section, and unless otherwise exempted by this chapter, the following specific acts, or the causing or permitting thereof, are regulated as follows:

1. Motor Vehicles. No person shall operate or cause to be operated a public or private motor vehicle, or combination of vehicles towed by a motor vehicle, that creates a sound exceeding the sound level limits in Table 11.80.030-2 when the vehicle(s) are not otherwise subject to noise regulations provided for by the California Vehicle Code.

2. Radios, Televisions, Electronic Audio Equipment, Musical Instruments or Similar Devices from a Stationary Source. No person shall operate, play or permit the operation or playing of any radio, tape player, television, electronic audio equipment, musical instrument, sound amplifier or other mechanical or electronic sound making device that produces, reproduces or amplifies sound in such a manner as to create a noise disturbance. However, this subsection shall not apply to any use or activity exempted in subsection E of this section and any use or activity for which a special permit has been issued pursuant to Section 11.80.040.

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3. Radios, Electronic Audio Equipment, or Similar Devices from a Mobile Source Such as a Motor Vehicle. Sound amplification or reproduction equipment on or in a motor vehicle is subject to regulation in accordance with the California Vehicle Code when upon the public right-of-way. When upon public space or publicly owned property other than the public right-of-way or upon private property open to the public, sound amplification or reproduction equipment shall not be operated in such a manner that it is plainly audible at a distance of fifty (50) feet in any direction from the vehicle.

4. Portable, Hand-Held Music or Sound Amplification or Reproduction Equipment. Such equipment shall not be operated on a public right-of-way, public space or other publicly owned property in such a manner as to be plainly audible at a distance of fifty (50) feet in any direction from the operator.

5. Loudspeakers and Public Address Systems.

a. Except as permitted by Section 11.80.040, no person shall operate, or permit the operation of, any loudspeaker, public address system or similar device, for any commercial purpose:

1. Which produces, reproduces or amplifies sound in such a manner as to create a noise disturbance; or

2. During nighttime hours on a public right-of-way, public space or other publicly owned property.

b. No person shall operate, or permit the operation of, any loudspeaker, public address system or similar device, for any noncommercial purpose, during nighttime hours in such a manner as to create a noise disturbance.

6. Animals. No person shall own, possess or harbor an animal or bird that howls, barks, meows, squawks, or makes other sounds that:

a. Create a noise disturbance;

b. Are of frequent or continued duration for ten (10) or more consecutive minutes and are plainly audible at a distance of fifty (50) feet from the real property line of the source of the sound; or

c. Are intermittent for a period of thirty (30) or more minutes and are plainly audible at a distance of fifty (50) feet from the real property line of the source of the sound.

7. Construction and Demolition. No person shall operate or cause the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city manager or designee. This section shall not apply to the use of power tools as provided in subsection (D)(9) of this section.

8. Emergency Signaling Devices. No person shall intentionally sound or permit the sounding outdoors of any fire, burglar or civil defense alarm, siren or whistle, or similar stationary emergency signaling device, except for emergency purposes or for testing as follows:

a. Testing of a stationary emergency signaling device shall not occur between seven p.m. and seven a.m. the following day;

b. Testing of a stationary emergency signaling device shall use only the minimum cycle test time, in no case to exceed sixty (60) seconds;

c. Testing of a complete emergency signaling system, including the functioning of the signaling device and the personnel response to the signaling device, shall not occur more than once in each calendar month. Such testing shall only occur only on weekdays between seven a.m. and seven p.m.

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and shall be exempt from the time limit specified in subsection (D)(8)(2) of this section.

9. Power Tools. No person shall operate or permit the operation of any mechanically, electrically or gasoline motor-driven tool during nighttime hours so as to cause a noise disturbance across a residential real property boundary.

10. Pumps, Air Conditioners, Air-Handling Equipment and Other Continuously Operating Equipment. Notwithstanding the general prohibitions of subsection a of this section, no person shall operate or permit the operation of any pump, air conditioning, air-handling or other continuously operating motorized equipment in a state of disrepair or in a manner which otherwise creates a noise disturbance distinguishable from normal operating sounds.

E. Exemptions. The following uses and activities shall be exempt from the sound level regulations except the maximum sound levels provided in Tables 11.80.030-1 and 11.80.030-1A:

1. Sounds resulting from any authorized emergency vehicle when responding to an emergency call or acting in time of an emergency.

2. Sounds resulting from emergency work as defined in Section 11.80.020

3. Any aircraft operated in conformity with, or pursuant to, federal law, federal air regulations and air traffic control instruction used pursuant to and within the duly adopted federal air regulations; and any aircraft operating under technical difficulties in any kind of distress, under emergency orders of air traffic control, or being operated pursuant to and subsequent to the declaration of an emergency under federal air regulations.

4. All sounds coming from the normal operations of interstate motor and rail carriers, to the extent that local regulation of sound levels of such vehicles has been preempted by the Noise Control Act of 1972 (42 U.S.C. § 4901 et seq.) or other applicable federal laws or regulations

5. Sounds from the operation of motor vehicles, to the extent they are regulated by the California Vehicle Code.

6. Any constitutionally protected noncommercial speech or expression conducted within or upon a any public right-of-way, public space or other publicly owned property constituting an open or a designated public forum in compliance with any applicable reasonable time, place and manner restrictions on such speech or expression or otherwise pursuant to legal authority.

7. Sounds produced at otherwise lawful and permitted city-sponsored events, organized sporting events, school assemblies, school playground activities, by permitted fireworks, and by permitted parades on public right-of-way, public space or other publicly owned property.

8. An event for which a temporary use permit or special event permit has been issued under other provisions of this code, where the provisions of Section 11.80.040 are met, the permit granted expressly grants an exemption from specific standards contained in this chapter, and the permittee and all persons under the permittee's reasonable control actually comply with all conditions of such permit. Violation of any condition of such a permit related to sound or sound equipment shall be a violation of this chapter and punishable as such.

F. Nothing in this chapter shall be construed to limit, modify or repeal any other regulation elsewhere in this code relating to the regulation of noise sources, nor shall any such other regulation be read to permit the emission of noise in violation of any provision of this chapter. (Ord. 740 § 1.2, 2007)

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11.80.040 Special provisions for temporary use and special event permits.

The exemption by permit set forth in Section 11.80.030(E)(8) shall be subject to the following requirements and conditions:

A. The permit application shall include the name, address and telephone number of the permit applicant; the date, hours and location for which the permit is requested; and the nature of the event or activity. It shall also specify the types of sounds and/or sound equipment to be permitted, the proposed duration of such sound, the specific standards from which the sound is to be exempted, and the reasons for each requested exemption.

B. The permit shall be issued provided the proposed activity meets the requirements of this section and the issuing official determines that the sound to be emitted at the event as proposed would not be detrimental to the public health, safety or welfare, that the event cannot reasonably achieve its legitimate aims and purposes without the exemption and that the sound levels proposed will not unreasonably damage the peace and quiet enjoyment of the lawful users of surrounding properties, nor constitute a public nuisance.

C. The official issuing the permit may prescribe any reasonable conditions or requirements he/she deems necessary to minimize noise disturbances upon the community or the surrounding neighborhood, and/or to protect the health, safety or welfare of the public, including participants in the permitted event, including use of mufflers, screens or other sound-attenuating devices.

D. Any permit granted must be in writing and shall contain all conditions upon which the permit shall be effective.

E. No more than six events requiring a sound limit exemption may be held at any particular location upon privately owned or controlled property per calendar year, provided further that the number of events shall not exceed the number permitted under the regulations for the type of permit issued. For purposes of this subsection, “location” means a legal parcel of real property or a complete shopping or commercial center or mall sharing common parking and access even if comprised of multiple legal parcels.

F. The exemption from sound limits under such permit shall not exceed maximum period of four hours in one twenty-four (24) hour day.

G. The permit will only be granted for hours between nine a.m. and ten p.m. on all days other than Friday and Saturday; and, on Friday and Saturday, between the hours of nine a.m. and one a.m. of the following day, except in the following circumstances:

1. A permit may be granted for hours between nine a.m. on New Year’s Eve and one a.m. the following day (New Year’s Day).

2. A permit may be granted for hours between nine a.m. and two a.m. the following day if there are no residences, hospitals, or nursing homes within a 0.5 mile radius of the property where the function is taking place.

H. Functions for which the permits are issued shall be limited to a continuous airborne sound level not to exceed seventy (70) dB(A), as measured two hundred (200) feet from the real property boundary of the source property if on private property, or from the source if on public right of way, public space or other publicly owned property. (Ord. 740 § 1.2, 2007)

11.80.050 Measurement or assessment of sound.

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A. Measurement With Sound Meter.

1. The measurement of sound shall be made with a sound level meter meeting the standards prescribed by ANSI Section 1.4-1983 (R2006). The instruments shall be maintained in calibration and good working order. A calibration check shall be made of the system at the time of any sound level measurement. Measurements recorded shall be taken so as to provide a proper representation of the source of the sound. The microphone during measurement shall be positioned so as not to create any unnatural enhancement or diminution of the measured sound. A windscreen for the microphone shall be used at all times. However, a violation of this chapter may occur without the occasion of the measurements being made as otherwise provided.

2. The slow meter response of the sound level meter shall be used in order to best determine the average amplitude.

3. The measurement shall be made at any point on the property into which the sound is being transmitted and shall be made at least three feet away from any ground, wall, floor, ceiling, roof and other plane surface.

4. In case of multiple occupancy of a property, the measurement may be made at any point inside the premises to which any complainant has right of legal private occupancy; provided that the measurement shall not be made within three feet of any ground, wall, floor, ceiling, roof or other plane surface.

5. All measurements of sound provided for in this chapter will be made by qualified officials of the city who are designated by the city manger or designee to operate the apparatus used to make the measurements.

B. Assessment Without Sound Level Meter. Any police officer, code enforcement officer, or other official designated by the city manager or designee who hears a noise or sound that is plainly audible, as defined in Section 11.80.020, in violation of this chapter, may enforce this chapter and shall assess the noise or sound according to the following standards:

1. The primary means of detection shall be by means of the official's normal hearing faculties, not artificially enhanced.

2. The official shall first attempt to have a direct line of sight and hearing to the vehicle or real property from which the sound or noise emanates so that the official can readily identify the offending source of the sound or noise and the distance involved. If the official is unable to have a direct line of sight and hearing to the vehicle or real property from which the sound or noise emanates, then the official shall confirm the source of the sound or noise by approaching the suspected vehicle or real property until the official is able to obtain a direct line of sight and hearing, and confirm the source of the sound or noise that was heard at the place of the original assessment of the sound or noise.

3. The official need not be required to identify song titles, artists, or lyrics in order to establish a violation. (Ord. 740 § 1.2, 2007)

11.80.060 Violation.

A. Violation of Sound Level Limits. Any person violating any of the provisions of this chapter shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punishable by a fine not to exceed one thousand dollars ($1,000.00) and/or six months in the county jail, or both.

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Notwithstanding the foregoing, any violation of the provisions of this chapter may, in the discretion of the citing officer or the city attorney, be cited and/or prosecuted as an infraction or be subject to civil citation pursuant to Chapter 1.10.

B. Joint and Several Responsibility. In addition to the person causing the offending sound, the owner, tenant or lessee of property, or a manager, overseer or agent, or any other person lawfully entitled to possess the property from which the offending sound is emitted at the time the offending sound is emitted, shall be responsible for compliance with this chapter if the additionally responsible party knows or should have known of the offending noise disturbance. It shall not be a lawful defense to assert that some other person caused the sound. The lawful possessor or operator of the premises shall be responsible for operating or maintaining the premises in compliance with this chapter and may be cited regardless of whether or not the person actually causing the sound is also cited.

C. Violation May be Declared a Public Nuisance. The operation or maintenance of any device, equipment, instrument, vehicle or machinery in violation of any provisions of this chapter which endangers the public health, safety and quality of life of residents in the area is declared to be a public nuisance, and may be subject to abatement summarily or by a restraining order or injunction issued

by a court of competent jurisdiction. (Ord. 824 § 1.2, 2011; Ord. 740 § 1.2, 2007)

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APPENDIX 3.2:

CITY OF PERRIS MUNICIPAL CODE

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Chapter 7.34 - NOISE CONTROL
Sections:

FOOTNOTE(S):

--- (**8**) ---

Prior ordinance history: Ord. 440.

7.34.010 - Declaration of policy.

Excessive noise levels are detrimental to the health and safety of individuals. Noise is considered a public nuisance, and the city discourages unnecessary, excessive or annoying noises from all sources. Creating, maintaining, causing, or allowing to be created, caused or maintained, any noise or vibration in a manner prohibited by the provisions of the ordinance codified in this chapter is a public nuisance and shall be punishable as a misdemeanor.

(Ord. 1082 § 2(part), 2000).

7.34.020 - Definitions.

A. The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this chapter except when the context clearly indicates a different meaning:
   1. "Ambient noise" means the all-encompassing noise associated with a given environment usually being composed of sounds from many sources near and far. For the purpose of this chapter, ambient noise level is the level obtained when the noise level is averaged over a period of five minutes without inclusion of noise from isolated identifiable sources at the location and time of day near that at which a comparison is to be made.
   2. "Decibel (dB)" means an intensity unit which denotes the ratio between two quantities which are proportional to power; the number of decibels corresponding to the ratio is ten times the common logarithm of this ratio.
   3. "Person" means a person, firm, association, co-partnership, joint venture, corporation or any entity, public or private in nature.
   4. "Sound amplifying equipment" means any machine or device for the amplification of the human voice, music or any other sound. "Sound amplifying equipment" shall not include standard vehicle radios when used and heard only by the occupants of the vehicle in which the vehicle radio is installed. "Sound amplifying equipment," as used in this chapter, shall not include warning devices on any vehicle used only for traffic safety purposes and shall not include communications equipment used by public or private utilities when restoring utility service following a public emergency or when doing work required to protect person or property from an imminent exposure to danger.
   5. "Sound level" (noise level) in decibels is the value of a sound measurement using the "A" weighting network of a sound level meter. Slow response of the sound level meter needle shall be used except where the sound is impulsive or rapidly varying in nature, in which case, fast response shall be used.
   6.

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"Sound level meter" means an instrument, including a microphone, an amplifier, an output meter and frequency weighting networks, for the measurement of sound levels, which satisfies the pertinent requirements in American National Standards Institute's specification S1.4-1971 or the most recent revision for type S-2A general purpose sound level meters.

B. Supplementary Definitions of Technical Terms. Definitions of technical terms not defined in this section shall be obtained from the American National Standards Institute's Acoustical Terminology S1-1971 or the most recent revision thereof.

(Ord. 1082 § 2(part), 2000).

7.34.030 - Measurement methods.

A. Sound shall be measured with a sound level meter as defined in Section 7.34.020.

B. Unless otherwise provided, outdoor measurements shall be taken with the microphone located at any point on the property line of the noise source but no closer than five feet from any wall or vertical obstruction and three to five feet above ground level whenever possible.

C. Unless otherwise provided, indoor measurements shall be taken inside the structure with the microphone located at any point as follows: (1) no less than three feet above floor level; (2) no less than five feet from any wall or vertical obstruction; and (3) not under common possession and control with the building or portion of the building from which the sound is emanating.

(Ord. 1082 § 2(part), 2000).

7.34.040 - Sound amplification.

No person shall amplify sound using sound amplifying equipment contrary to any of the following:

A. The only amplified sound permitted shall be either music or the human voice, or both.

B. The volume of amplified sound shall not exceed the noise levels set forth in this subsection when measured outdoors at or beyond the property line of the property from which the sound emanates.

Time Period	Maximum Noise Level
10:01 p.m.—7:00 a.m.	60 dBA
7:01 a.m.—10:00 p.m.	80 dBA

(Ord. 1082 § 2(part), 2000).

7.34.050 - General prohibition.

A. It unlawful for any person to willfully make, cause or suffer, or permit to be made or caused, any loud excessive or offensive noises or sounds which unreasonably disturb the peace and quiet of any residential neighborhood or which are physically annoying to persons of ordinary sensitivity or which are so harsh, prolonged or unnatural or unusual in their use, time or place as to occasion physical discomfort to the inhabitants of the city, or any section thereof. The standards for dBA noise level in Section 7.34.040 shall apply to this section. To the extent that the noise created causes the noise level at the property line to exceed the ambient noise level by more than 1.0 decibels, it shall be presumed that the noise being created also is in violation of this section.

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B. The characteristics and conditions which should be considered in determining whether a violation of the provisions of this section exists should include, but not be limited to, the following:

1. The level of the noise;
2. Whether the nature of the noise is usual or unusual;
3. Whether the origin of the noise is natural or unnatural;
4. The level of the ambient noise;
5. The proximity of the noise to sleeping facilities;
6. The nature and zoning of the area from which the noise emanates and the area where it is received;
7. The time of day or night the noise occurs;
8. The duration of the noise; and
9. Whether the noise is recurrent, intermittent or constant.

(Ord. 1082 § 2(part), 2000).

7.34.060 - Construction noise.

It is unlawful for any person between the hours of seven p.m. of any day and seven a.m. of the following day, or on a legal holiday, with the exception of Columbus Day and Washington's birthday, or on Sundays to erect, construct, demolish, excavate, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise. Construction activity shall not exceed eighty dBA in residential zones in the city.

(Ord. 1082 § 2(part), 2000).

7.34.070 - Refuse vehicles and parking lot sweepers.

No person shall operate or permit to be operated a refuse compacting, processing or collection vehicle or parking lot sweeper between the hours of seven p.m. to seven a.m. in any residential area unless a permit has been applied for and granted by the city of Perris.

(Ord. 1082 § 2(part), 2000).

7.34.080 - Disturbing, excessive, offensive noises—Declaration of certain acts constituting.

The following activities, among others, are declared to cause loud, disturbing, excessive or offensive noises in violation of this section and are unlawful, namely:

A. Horns, Signaling Devices, etc. Unnecessary use or operation of horns, signaling devices or other similar devices on automobiles, motorcycles or any other vehicle;

B. Radios, Television Sets, Phonographs, Loud Speaking Amplifiers and Similar Devices. The use or operation of any sound production or reproduction device, radio receiving set, musical instrument, drums, phonograph, television set, loud speakers, sound amplifier, or other similar machine or device for the producing or reproducing of sound, in such a manner as to disturb the peace, quiet or comfort of any reasonable person of normal sensitivity in any area of the city is prohibited. This provision shall not apply to any participant in a licensed parade or to any person who has been otherwise duly authorized by the city of Perris to engage in such conduct;

C. Animals.

1.

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The keeping or maintenance, or the permitting to be kept or maintained, upon any premises owned, occupied or controlled by any person of any animal or animals which by any frequent or long-continued noise shall cause annoyance or discomfort to a reasonable person of normal sensitiveness in the vicinity,

2. The noise from any such animal or animals that disturbs two or more residents residing in separate residences adjacent to any part of the property on which the subject animal or animals are kept or maintained, or three or more residents residing in separate residences in close proximity to the property on which the subject animal or animals are kept or maintained, shall be prima facie evidence of a violation of this section;

D. Hospitals, Schools, Libraries, Rest Homes, Long-Term Medical or Mental Care Facilities. To make loud, disturbing, excessive noises adjacent to a hospital, school, library, rest home or long-term medical or mental care facility, which noise unreasonably interferes with the workings of such institutions or which disturbs or unduly annoys occupants in said institutions;

E. Playing of Radios on Buses and Trolleys. The operation of any radio, phonograph or tape player on an urban transit bus or trolley so as to emit noise that is audible to any other person in the vehicle is prohibited;

F. Playing of Radios, Phonographs and Other Sound Production or Reproduction Devices in Public Parks and Public Parking Lots and Streets Adjacent Thereto. The operation of any radio, phonograph, television set or any other sound production or reproduction device in any public park or any public parking lot, or street adjacent to such park or beach, without the prior written approval of the city manager or the administrator, in such a manner that such radio, phonograph television set or sound production or reproduction device emits a sound level exceeding those found in the table in Section 7.34.040;

G. Leaf Blowers.

1. A "leaf blower" means any portable, hand-held or backpack, engine-powered device with a nozzle that creates a directable airstream which is capable of and intended for moving leaves and light materials.
2. No person shall operate a leaf blower in any residential zoned area between the hours of seven p.m. and eight a.m. on weekdays and five p.m. and nine a.m. on weekends or on legal holidays.
3. No person may operate any leaf blower at a sound level in excess of eighty decibels measured at a distance of fifty feet or greater from the point of noise origin.
4. Leaf blowers shall be equipped with functional mufflers and an approved sound limiting device required to ensure that the leaf blower is not capable of generating a sound level exceeding any limit prescribed in this section.

(Ord. 1082 § 2(part), 2000).

7.34.090 - Burglar alarms.

A. Audible burglar alarms for structures or motor vehicles are prohibited unless the operation of such burglar alarm can be terminated within twenty minutes of being activated.

B. Notwithstanding the requirements of this provision, any member of the Riverside County sheriff's department, Perris Division, shall have the right to take such steps as may be reasonable and necessary to disconnect any such alarm installed in any building, dwelling or motor vehicle at any time during the period of its activation. On or after thirty days from the effective date of the ordinance

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codified in this chapter, any building, dwelling or motor vehicle upon which a burglar alarm has been installed shall prominently display the telephone number at which communication may be made with the owner of such building, dwelling or motor vehicle.

(Ord. 1082 § 2(part), 2000).

7.34.100 - Motor vehicles.

A. Off-Highway.

1. Except as otherwise provided for in this chapter, it shall be unlawful to operate any motor vehicle of any type on any site, other than on a public street or highway as defined in the California Vehicle Code, in any manner so as to cause noise in excess of those noise levels permitted for on-highway motor vehicles as specified in the table for "forty-five-mile-per-hour or less speed limits" contained in Section 23130 of the California Vehicle Code and as corrected for distances set forth in subsection (A)(2) below.
2. The maximum noise level as the on-highway vehicle passes may be measured at a distance of other than fifty feet from the center line of travel, provided the measurement is further adjusted by adding algebraically the application correction as follows:

DISTANCE (FEET)	CORRECTION (DECIBELS)
25	-6
28	-5
32	-4
35	-3
40	-2
45	-1
50 (preferred distance)	0
56	+1
63	+2
70	+3
80	+4
90	+5
100	+6

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

B. Nothing in this section shall apply to authorized emergency vehicles when being used in emergency situations including the blowing of sirens and/or horns.

(Ord. 1082 § 2(part), 2000).

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 5.1:

STUDY AREA PHOTOS

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Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

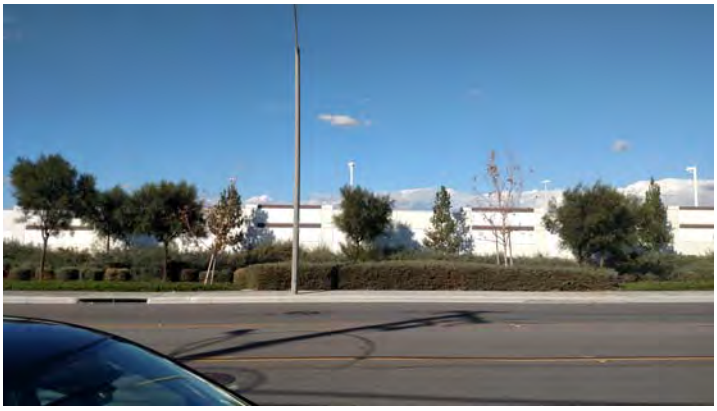
JN:09914 MoVal Industrial



L1
33, 51' 59.348100", 117, 13' 39.717400"



L1_E
33, 51' 59.348100", 117, 13' 39.717400"



L1_N
33, 51' 59.348100", 117, 13' 39.717400"



L1_S
33, 51' 59.348100", 117, 13' 39.717400"



L1_S2
33, 51' 59.348100", 117, 13' 39.717400"



L1_W
33, 51' 59.348100", 117, 13' 39.717400"

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

JN:09914 MoVal Industrial



L2
33, 51' 59.348100", 117, 13' 39.717400"



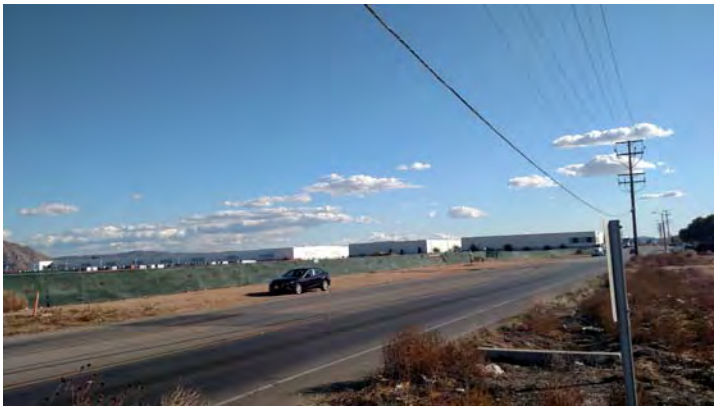
L2_E
33, 51' 42.772500", 117, 14' 5.343000"



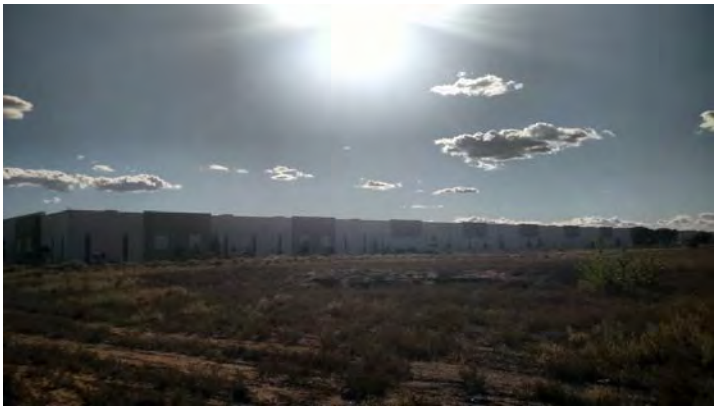
L2_N
33, 51' 42.772500", 117, 14' 5.343000"



L2_NW
33, 51' 42.772500", 117, 14' 5.343000"



L2_SE
33, 51' 42.772500", 117, 14' 5.343000"



L2_SW
33, 51' 42.772500", 117, 14' 5.343000"

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

JN:09914 MoVal Industrial



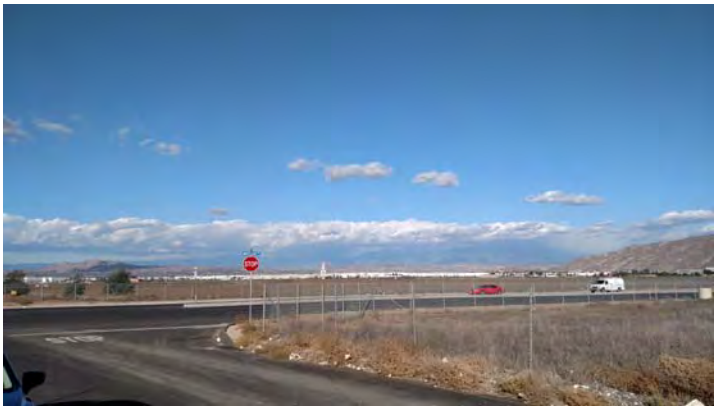
L2_W
33, 51' 42.772500", 117, 14' 5.343000"



L3
33, 51' 31.058300", 117, 14' 54.012400"



L3_E
33, 51' 31.058300", 117, 14' 54.012400"



L3_NE
33, 51' 31.058300", 117, 14' 54.012400"



L3_S
33, 51' 31.058300", 117, 14' 54.012400"



L3_W
33, 51' 31.058300", 117, 14' 54.012400"

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



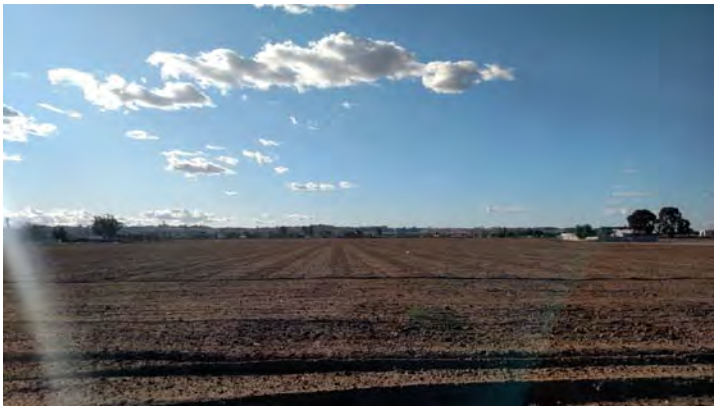
L4
33, 51' 10.582500", 117, 14' 38.109700"



L4_N
33, 51' 10.582500", 117, 14' 38.109700"



L4_S
33, 51' 10.582500", 117, 14' 38.109700"



L4_W
33, 51' 10.582500", 117, 14' 38.109700"

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 5.2:

NOISE LEVEL MEASUREMENT WORKSHEETS

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Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

24-Hour Noise Level Measurement Summary

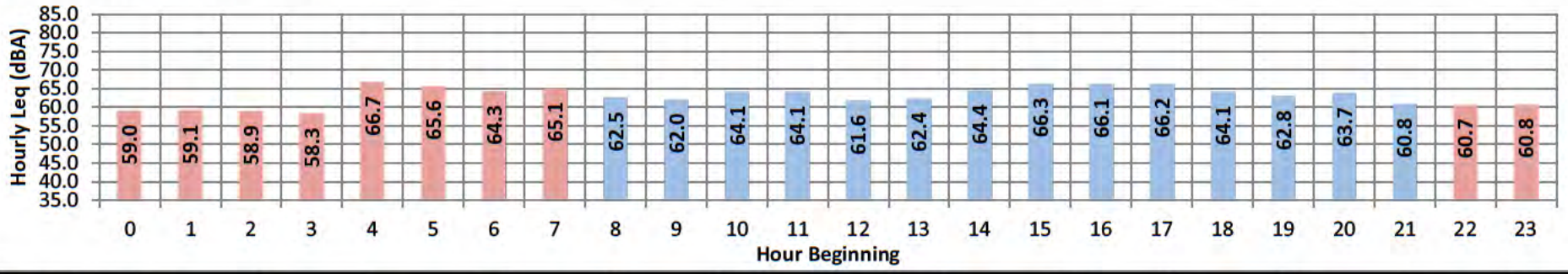
Project Name: MoVal Industrial

Location: L1 - Located on Nandina Avenue west of Perris Boulevard and north of existing residential homes.

JN: 9914
Analyst: A. Wolfe
Date: 11/11/2015

Energy Average Leq		24-Hour
Day	*Night*	*CNEL*
64.0	62.9	69.5

Hourly Leq dBA Readings (unadjusted)



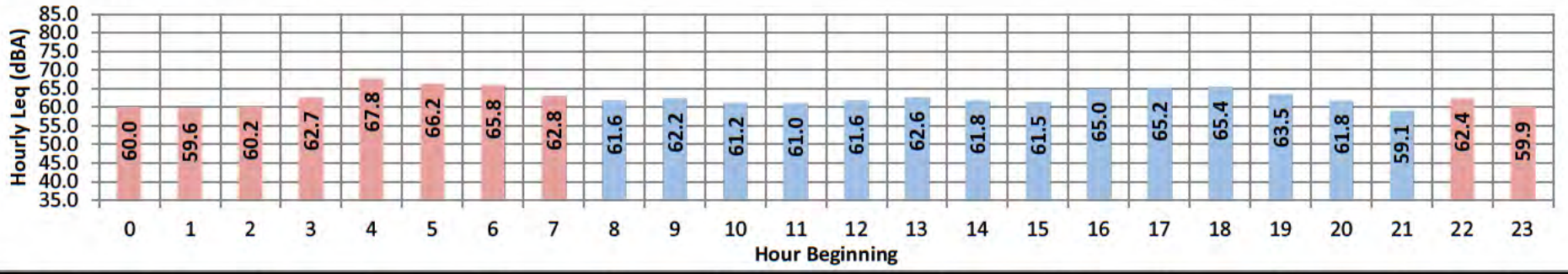
Time Period	Hour	Leq	Lmax	Lmin	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	60.8	79.6	40.5	73.0	69.0	64.0	61.0	55.0	51.0	46.0	44.0	42.0
	Max	66.3	92.9	48.7	78.0	75.0	71.0	70.0	64.0	60.0	54.0	52.0	51.0
Energy Average:		64.0	Average:		75.2	72.6	68.4	65.8	58.9	55.0	49.9	48.4	46.4
Night	Min	58.3	79.3	43.4	68.0	66.0	60.0	57.0	51.0	48.0	45.0	44.0	43.0
	Max	66.7	93.3	55.3	76.0	74.0	72.0	71.0	67.0	62.0	57.0	57.0	56.0
Energy Average:		62.9	Average:		73.2	70.3	65.5	63.1	58.0	55.0	50.7	49.9	48.6
Hourly Summary													
Night	0	59.0	80.7	43.4	72.0	69.0	63.0	60.0	54.0	52.0	46.0	45.0	44.0
	1	59.1	85.2	43.4	72.0	68.0	60.0	57.0	51.0	48.0	45.0	44.0	43.0
	2	58.9	79.3	44.8	70.0	67.0	62.0	60.0	57.0	52.0	47.0	47.0	46.0
	3	58.3	82.5	46.9	68.0	66.0	62.0	60.0	55.0	53.0	49.0	48.0	47.0
	4	66.7	82.2	50.8	76.0	74.0	72.0	71.0	67.0	62.0	55.0	53.0	52.0
	5	65.6	83.6	51.8	76.0	74.0	71.0	69.0	63.0	60.0	56.0	55.0	53.0
	6	64.3	85.3	55.3	76.0	72.0	68.0	66.0	61.0	60.0	57.0	57.0	56.0
	7	65.1	93.3	52.0	76.0	73.0	68.0	65.0	59.0	57.0	55.0	54.0	53.0
Day	8	62.5	86.2	48.6	74.0	71.0	66.0	63.0	58.0	56.0	53.0	52.0	51.0
	9	62.0	82.3	43.4	73.0	71.0	68.0	66.0	58.0	54.0	49.0	48.0	45.0
	10	64.1	83.5	42.8	76.0	74.0	70.0	66.0	57.0	54.0	49.0	47.0	45.0
	11	64.1	85.9	40.5	77.0	74.0	70.0	67.0	56.0	51.0	46.0	44.0	42.0
	12	61.6	86.4	41.5	74.0	71.0	66.0	63.0	55.0	51.0	46.0	44.0	43.0
	13	62.4	79.6	42.3	75.0	73.0	68.0	66.0	58.0	54.0	47.0	46.0	44.0
	14	64.4	88.7	42.8	76.0	74.0	70.0	67.0	58.0	53.0	48.0	46.0	44.0
	15	66.3	92.9	43.8	76.0	74.0	70.0	67.0	61.0	56.0	49.0	47.0	45.0
	16	66.1	84.9	48.0	78.0	75.0	71.0	69.0	64.0	60.0	54.0	52.0	50.0
	17	66.2	85.9	48.6	77.0	75.0	71.0	70.0	64.0	59.0	53.0	52.0	50.0
	18	64.1	85.5	44.8	75.0	72.0	69.0	67.0	61.0	57.0	51.0	49.0	47.0
	19	62.8	81.6	48.7	75.0	72.0	68.0	65.0	59.0	56.0	52.0	51.0	50.0
	20	63.7	91.2	47.2	74.0	71.0	67.0	64.0	59.0	56.0	52.0	51.0	48.0
	21	60.8	82.4	44.8	73.0	69.0	64.0	61.0	56.0	53.0	49.0	48.0	46.0
Night	22	60.7	79.3	45.3	73.0	70.0	65.0	62.0	57.0	54.0	49.0	48.0	46.0
	23	60.8	82.7	45.0	73.0	70.0	64.0	61.0	56.0	52.0	48.0	48.0	46.0

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN

24-Hour Noise Level Measurement Summary

			Energy Average Leq		24-Hour
Project Name: MoVal Industrial	*JN:* 9914		*Day*	*Night*	*CNEL*
Location: L2 - Located within the Project site on Indian Avenue north of the existing iHerb, Inc. industrial building.	*Analyst:* A. Wolfe		62.8	63.7	70.2
	Date: 11/11/2015				

Hourly Leq dBA Readings (unadjusted)



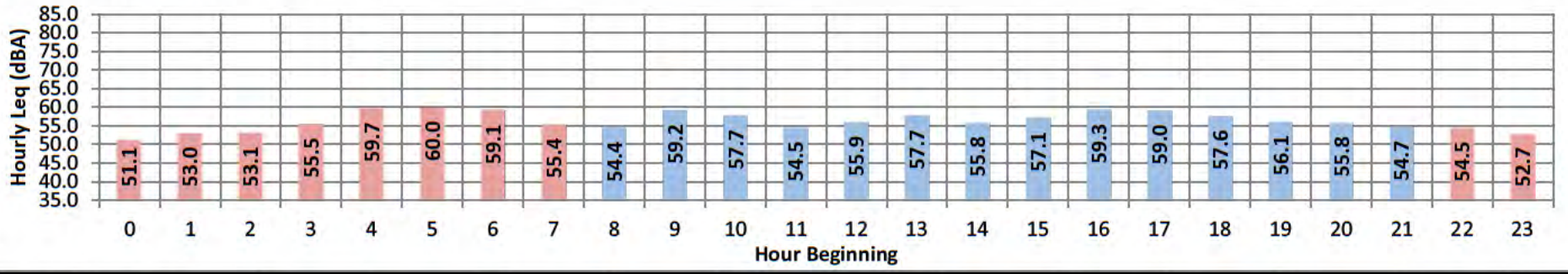
Time Period	Hour	Leq	Lmax	Lmin	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	59.1	77.4	39.3	70.0	68.0	65.0	64.0	57.0	50.0	43.0	42.0	40.0
	Max	65.4	85.9	48.4	74.0	72.0	70.0	69.0	65.0	63.0	56.0	54.0	51.0
Energy Average:		62.8	Average:		72.2	70.6	68.2	66.6	61.0	55.5	47.1	45.8	44.1
Night	Min	59.6	76.4	41.6	71.0	69.0	65.0	63.0	54.0	48.0	44.0	43.0	42.0
	Max	67.8	88.1	52.0	76.0	73.0	71.0	70.0	68.0	66.0	59.0	56.0	53.0
Energy Average:		63.7	Average:		72.8	70.8	68.3	66.7	60.7	55.4	49.2	47.7	46.3
Hourly Summary													
Night	0	60.0	82.6	42.7	71.0	69.0	66.0	64.0	54.0	49.0	45.0	44.0	43.0
	1	59.6	82.3	42.2	71.0	69.0	65.0	63.0	54.0	48.0	44.0	43.0	43.0
	2	60.2	76.4	43.2	72.0	70.0	67.0	65.0	56.0	50.0	46.0	45.0	44.0
	3	62.7	80.0	45.2	73.0	71.0	69.0	67.0	62.0	55.0	48.0	47.0	46.0
	4	67.8	88.1	49.1	76.0	73.0	71.0	70.0	68.0	66.0	59.0	56.0	52.0
	5	66.2	82.2	52.0	75.0	73.0	71.0	70.0	67.0	63.0	56.0	54.0	53.0
	6	65.8	83.0	49.5	74.0	72.0	70.0	69.0	66.0	63.0	55.0	53.0	50.0
	7	62.8	81.4	46.8	73.0	71.0	69.0	67.0	61.0	56.0	50.0	48.0	47.0
Day	8	61.6	81.8	42.3	72.0	70.0	68.0	66.0	59.0	52.0	45.0	44.0	43.0
	9	62.2	78.2	40.7	72.0	71.0	69.0	67.0	61.0	54.0	44.0	43.0	42.0
	10	61.2	79.0	39.3	72.0	70.0	68.0	66.0	59.0	52.0	43.0	42.0	40.0
	11	61.0	80.5	39.3	72.0	70.0	67.0	65.0	59.0	52.0	43.0	42.0	40.0
	12	61.6	78.3	40.2	72.0	70.0	68.0	66.0	60.0	54.0	44.0	42.0	40.0
	13	62.6	82.8	39.9	72.0	70.0	68.0	67.0	62.0	56.0	46.0	44.0	42.0
	14	61.8	78.6	41.2	72.0	71.0	68.0	66.0	60.0	55.0	45.0	44.0	42.0
	15	61.5	78.1	42.7	71.0	70.0	67.0	65.0	61.0	56.0	47.0	45.0	44.0
	16	65.0	81.9	46.8	74.0	72.0	70.0	68.0	64.0	62.0	54.0	52.0	49.0
	17	65.2	79.9	48.4	73.0	72.0	70.0	69.0	65.0	63.0	56.0	54.0	51.0
	18	65.4	85.9	46.8	74.0	72.0	70.0	69.0	65.0	60.0	51.0	50.0	48.0
	19	63.5	84.1	45.6	73.0	72.0	69.0	68.0	62.0	56.0	49.0	48.0	47.0
	20	61.8	77.4	44.9	72.0	70.0	68.0	67.0	60.0	55.0	48.0	47.0	46.0
	21	59.1	77.7	42.2	70.0	68.0	65.0	64.0	57.0	50.0	44.0	44.0	43.0
Night	22	62.4	80.3	42.2	72.0	71.0	69.0	67.0	62.0	54.0	45.0	44.0	43.0
	23	59.9	76.4	41.6	71.0	69.0	66.0	65.0	57.0	50.0	44.0	43.0	42.0

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN

24-Hour Noise Level Measurement Summary

			Energy Average Leq		24-Hour
Project Name:	MoVal Industrial	*JN:* 9914	*Day*	*Night*	*CNEL*
Location:	L3 - Located at the southwest corner of Nevada Avenue and Harley Knox Boulevard, north of existing residential homes. The March Air Reserve Base runway is located north of this location.	*Analyst:* A. Wolfe			
		Date: 11/11/2015	57.1	56.5	63.3

Hourly Leq dBA Readings (unadjusted)



Time Period	Hour	Leq	Lmax	Lmin	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	54.4	69.3	44.8	63.0	62.0	59.0	58.0	53.0	49.0	45.0	45.0	44.0
	Max	59.3	84.8	47.0	68.0	66.0	64.0	62.0	58.0	55.0	50.0	48.0	47.0
Energy Average:		57.1	Average:		65.6	63.8	61.5	60.0	55.6	51.4	46.5	45.9	45.4
Night	Min	51.1	68.2	44.4	62.0	60.0	56.0	54.0	48.0	46.0	44.0	44.0	44.0
	Max	60.0	79.3	51.0	69.0	67.0	65.0	64.0	59.0	57.0	52.0	52.0	51.0
Energy Average:		56.5	Average:		65.1	63.3	60.6	58.8	53.6	50.8	48.1	47.6	47.1
Hourly Summary													
Night	0	51.1	68.2	45.4	62.0	60.0	56.0	54.0	48.0	46.0	46.0	45.0	45.0
	1	53.0	71.7	45.3	64.0	62.0	59.0	56.0	49.0	47.0	46.0	45.0	45.0
	2	53.1	73.2	46.0	64.0	62.0	58.0	56.0	50.0	48.0	47.0	46.0	46.0
	3	55.5	70.1	47.1	65.0	63.0	61.0	59.0	54.0	51.0	48.0	48.0	47.0
	4	59.7	76.4	48.1	69.0	67.0	64.0	63.0	59.0	57.0	52.0	51.0	49.0
	5	60.0	79.3	51.0	69.0	67.0	65.0	64.0	59.0	56.0	52.0	52.0	51.0
	6	59.1	77.0	50.5	67.0	66.0	64.0	62.0	58.0	55.0	52.0	51.0	51.0
	7	55.4	70.7	48.3	64.0	62.0	60.0	59.0	55.0	52.0	49.0	49.0	49.0
Day	8	54.4	70.8	45.6	64.0	62.0	59.0	58.0	53.0	50.0	46.0	46.0	46.0
	9	59.2	84.8	45.3	64.0	62.0	60.0	58.0	54.0	50.0	46.0	46.0	45.0
	10	57.7	79.6	44.9	67.0	64.0	61.0	59.0	54.0	49.0	45.0	45.0	45.0
	11	54.5	69.3	44.9	63.0	62.0	60.0	59.0	54.0	49.0	45.0	45.0	45.0
	12	55.9	69.7	44.9	65.0	63.0	61.0	60.0	56.0	51.0	46.0	45.0	45.0
	13	57.7	74.0	45.1	68.0	66.0	63.0	61.0	57.0	52.0	46.0	45.0	45.0
	14	55.8	75.0	45.1	64.0	62.0	61.0	60.0	56.0	52.0	46.0	45.0	45.0
	15	57.1	74.4	45.2	66.0	65.0	62.0	61.0	57.0	52.0	46.0	45.0	45.0
	16	59.3	82.7	45.5	68.0	66.0	64.0	62.0	58.0	55.0	49.0	47.0	46.0
	17	59.0	81.0	46.6	68.0	65.0	63.0	62.0	58.0	54.0	50.0	48.0	47.0
	18	57.6	76.1	47.0	67.0	66.0	63.0	61.0	57.0	53.0	48.0	48.0	47.0
	19	56.1	69.4	45.7	65.0	64.0	62.0	60.0	56.0	52.0	47.0	46.0	46.0
	20	55.8	74.5	45.2	65.0	63.0	61.0	60.0	54.0	51.0	46.0	46.0	45.0
	21	54.7	69.4	44.8	64.0	63.0	61.0	59.0	54.0	49.0	45.0	45.0	44.0
Night	22	54.5	73.0	44.7	64.0	63.0	60.0	58.0	53.0	49.0	45.0	45.0	44.0
	23	52.7	73.5	44.4	63.0	61.0	59.0	57.0	51.0	47.0	44.0	44.0	44.0

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN

24-Hour Noise Level Measurement Summary

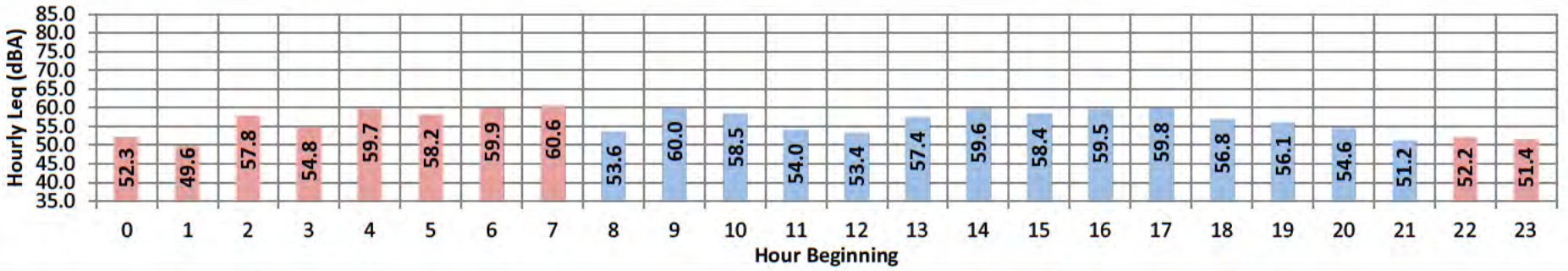
Project Name: MoVal Industrial

Location: L4 - Located southwest of the Project site on Webster Avenue near existing residential homes. The March Air Reserve Base runway is north of this location.

JN: 9914
Analyst: A. Wolfe
Date: 11/11/2015

Energy Average Leq		24-Hour
Day	Night	CNEL
57.4	57.2	63.3

Hourly Leq dBA Readings (unadjusted)



Time Period	Hour	Leq	Lmax	Lmin	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	51.2	71.9	37.4	64.0	60.0	56.0	52.0	46.0	43.0	40.0	39.0	38.0
	Max	60.0	87.4	46.7	72.0	68.0	63.0	60.0	54.0	51.0	49.0	48.0	48.0
Energy Average:		57.4	Average:		67.9	64.6	59.9	57.1	50.1	46.7	43.4	42.7	42.0
Night	Min	49.6	67.3	39.2	58.0	54.0	52.0	51.0	46.0	44.0	41.0	40.0	40.0
	Max	60.6	86.0	54.2	70.0	66.0	62.0	60.0	59.0	57.0	56.0	55.0	55.0
Energy Average:		57.2	Average:		64.8	61.3	57.3	55.6	52.7	51.1	48.7	48.4	47.7
Hourly Summary													
Night	0	52.3	72.4	43.4	64.0	60.0	54.0	53.0	49.0	47.0	45.0	45.0	44.0
	1	49.6	67.3	43.4	58.0	54.0	52.0	51.0	49.0	47.0	45.0	45.0	44.0
	2	57.8	83.6	46.2	65.0	62.0	56.0	53.0	51.0	50.0	48.0	47.0	47.0
	3	54.8	75.6	47.2	61.0	58.0	57.0	56.0	55.0	53.0	50.0	50.0	48.0
	4	59.7	79.3	50.7	70.0	66.0	62.0	60.0	57.0	56.0	53.0	53.0	52.0
	5	58.2	75.3	53.9	65.0	63.0	60.0	59.0	58.0	57.0	55.0	55.0	54.0
	6	59.9	78.7	54.2	69.0	65.0	62.0	60.0	59.0	57.0	56.0	55.0	55.0
	7	60.6	86.0	51.1	70.0	64.0	60.0	59.0	56.0	55.0	52.0	52.0	52.0
Day	8	53.6	76.6	43.6	64.0	60.0	56.0	55.0	51.0	48.0	45.0	45.0	44.0
	9	60.0	85.0	40.4	68.0	64.0	59.0	56.0	49.0	45.0	42.0	41.0	41.0
	10	58.5	81.8	39.2	72.0	66.0	60.0	58.0	49.0	44.0	41.0	40.0	40.0
	11	54.0	79.0	39.1	66.0	63.0	58.0	56.0	47.0	44.0	41.0	40.0	39.0
	12	53.4	74.6	39.1	66.0	63.0	58.0	55.0	47.0	43.0	40.0	40.0	39.0
	13	57.4	82.8	39.0	70.0	66.0	60.0	56.0	46.0	43.0	40.0	40.0	39.0
	14	59.6	84.9	37.4	71.0	66.0	61.0	57.0	48.0	44.0	40.0	39.0	38.0
	15	58.4	81.2	40.3	71.0	67.0	62.0	59.0	51.0	46.0	42.0	41.0	40.0
	16	59.5	87.4	42.9	69.0	67.0	63.0	60.0	53.0	50.0	46.0	45.0	44.0
	17	59.8	84.1	46.2	70.0	68.0	63.0	60.0	54.0	51.0	48.0	47.0	47.0
	18	56.8	75.7	46.7	68.0	65.0	62.0	60.0	54.0	51.0	49.0	48.0	48.0
	19	56.1	77.3	44.6	67.0	65.0	61.0	59.0	53.0	50.0	47.0	46.0	45.0
	20	54.6	73.7	42.3	65.0	63.0	59.0	57.0	53.0	50.0	45.0	44.0	43.0
	21	51.2	71.9	40.3	64.0	61.0	56.0	52.0	47.0	45.0	42.0	42.0	41.0
Night	22	52.2	75.8	40.4	64.0	62.0	56.0	53.0	47.0	45.0	42.0	42.0	41.0
	23	51.4	77.4	39.2	62.0	59.0	54.0	52.0	46.0	44.0	41.0	40.0	40.0

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 7.1:

OFF-SITE TRAFFIC NOISE CONTOURS

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Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Indian St.
Road Segment: n/o Grove View Rd.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,132 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,213 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-2.54	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-11.79	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-10.35	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.4	65.6	61.9	63.6	70.2	70.4
Medium Trucks:	70.0	67.9	61.6	63.7	70.8	70.9
Heavy Trucks:	75.8	73.2	71.0	70.1	77.0	77.3
Vehicle Noise:	77.4	74.9	71.9	71.7	78.6	78.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	165	356	767	1,652
CNEL:	171	369	796	1,714

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Indian St.
Road Segment: s/o Grove View Rd.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,803 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,380 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.98	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-11.23	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-9.79	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.0	66.2	62.5	64.1	70.8	71.0
Medium Trucks:	70.6	68.5	62.2	64.2	71.3	71.5
Heavy Trucks:	76.4	73.8	71.5	70.6	77.6	77.8
Vehicle Noise:	78.0	75.4	72.5	72.3	79.2	79.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	180	388	836	1,800
CNEL:	187	403	867	1,869

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Indian St.
Road Segment: s/o Driveway 1
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,634 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,263 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-2.37	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-11.62	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-10.18	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.6	65.8	62.1	63.7	70.4	70.6
Medium Trucks:	70.2	68.1	61.8	63.8	71.0	71.1
Heavy Trucks:	76.0	73.4	71.1	70.3	77.2	77.5
Vehicle Noise:	77.6	75.1	72.1	71.9	78.8	79.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	170	366	788	1,697
CNEL:	176	379	818	1,761

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Indian St.
Road Segment: n/o Harley Knox Bl.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,627 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,363 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-2.04	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-11.29	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-9.85	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.9	66.1	62.4	64.1	70.7	70.9
Medium Trucks:	70.5	68.4	62.1	64.2	71.3	71.4
Heavy Trucks:	76.3	73.7	71.5	70.6	77.5	77.8
Vehicle Noise:	77.9	75.4	72.4	72.2	79.1	79.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	178	385	828	1,785
CNEL:	185	399	860	1,853

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Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project | Project Name: Indian Street Commerce
Road Name: Nandina Av. | Job Number: 9914
Road Segment: w/o Indian St.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,752 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	675 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004
Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.63	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-13.88	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-12.44	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.6	61.8	58.1	59.7	66.4	66.6
Medium Trucks:	66.4	64.3	58.0	60.0	67.1	67.3
Heavy Trucks:	72.6	70.0	67.7	66.9	73.8	74.1
Vehicle Noise:	74.0	71.5	68.6	68.3	75.3	75.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	99	212	457	985
CNEL:	102	220	475	1,023

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project | Project Name: Indian Street Commerce
Road Name: Nandina Av. | Job Number: 9914
Road Segment: e/o Indian St.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,399 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	440 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004
Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-6.49	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-15.74	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.30	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.7	60.0	56.2	57.9	64.5	64.7
Medium Trucks:	64.5	62.4	56.1	58.2	65.3	65.4
Heavy Trucks:	70.7	68.1	65.9	65.0	71.9	72.2
Vehicle Noise:	72.2	69.7	66.7	66.5	73.4	73.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	74	160	344	740
CNEL:	77	166	357	769

Monday, January 18, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project | Project Name: Indian Street Commerce
Road Name: Harley Knox Bl. | Job Number: 9914
Road Segment: w/o I-215 NB Ramps

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,835 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,384 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004
Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.51	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-10.76	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-9.33	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.9	64.1	60.4	62.0	68.7	68.9
Medium Trucks:	68.6	66.6	60.2	62.3	69.4	69.6
Heavy Trucks:	74.9	72.3	70.0	69.2	76.1	76.4
Vehicle Noise:	76.3	73.8	70.9	70.6	77.5	77.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	175	377	812	1,750
CNEL:	182	392	844	1,817

Monday, January 18, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project | Project Name: Indian Street Commerce
Road Name: Harley Knox Bl. | Job Number: 9914
Road Segment: e/o I-215 NB Ramps

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,815 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,782 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004
Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.42	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-9.67	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-8.23	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.0	65.2	61.5	63.1	69.8	70.0
Medium Trucks:	69.7	67.7	61.3	63.4	70.5	70.7
Heavy Trucks:	76.0	73.4	71.1	70.2	77.2	77.5
Vehicle Noise:	77.4	74.9	72.0	71.7	78.6	78.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	207	446	961	2,071
CNEL:	215	463	998	2,151

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Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Harley Knox Bl.
Road Segment: w/o Patterson Av.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,720 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,772 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.44	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-9.69	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-8.25	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.9	65.2	61.5	63.1	69.8	69.9
Medium Trucks:	69.7	67.7	61.3	63.4	70.5	70.7
Heavy Trucks:	76.0	73.4	71.1	70.2	77.2	77.4
Vehicle Noise:	77.4	74.9	71.9	71.7	78.6	78.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	206	445	958	2,064
CNEL:	214	462	995	2,143

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Harley Knox Bl.
Road Segment: w/o Webster Av.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,592 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,659 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.73	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-9.97	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-8.54	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.7	64.9	61.2	62.8	69.5	69.7
Medium Trucks:	69.4	67.4	61.0	63.1	70.2	70.4
Heavy Trucks:	75.7	73.1	70.8	69.9	76.9	77.2
Vehicle Noise:	77.1	74.6	71.7	71.4	78.3	78.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	198	426	917	1,976
CNEL:	205	442	952	2,051

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Harley Knox Bl.
Road Segment: w/o Indian St.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	20,018 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,002 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.09	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-9.16	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-7.72	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.5	65.7	62.0	63.6	70.3	70.5
Medium Trucks:	70.2	68.2	61.8	63.9	71.0	71.2
Heavy Trucks:	76.5	73.9	71.6	70.8	77.7	78.0
Vehicle Noise:	77.9	75.4	72.5	72.2	79.1	79.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	224	482	1,039	2,239
CNEL:	232	501	1,079	2,325

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Harley Knox Bl.
Road Segment: e/o Indian St.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,063 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	806 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.86	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-13.11	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-11.67	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.5	61.8	58.0	59.7	66.4	66.5
Medium Trucks:	66.3	64.2	57.9	60.0	67.1	67.2
Heavy Trucks:	72.5	69.9	67.7	66.8	73.7	74.0
Vehicle Noise:	74.0	71.5	68.5	68.3	75.2	75.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	122	263	567	1,221
CNEL:	127	273	589	1,268

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Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project
Road Name: Indian St.
Road Segment: n/o Grove View Rd.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,266 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,227 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.95%
Medium Trucks:	74.7%	4.3%	20.9%	9.19%
Heavy Trucks:	66.1%	9.8%	24.1%	12.86%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-2.49	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-11.78	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-10.32	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.5	65.7	62.0	63.6	70.3	70.5
Medium Trucks:	70.0	67.9	61.6	63.7	70.8	70.9
Heavy Trucks:	75.8	73.2	71.0	70.1	77.0	77.3
Vehicle Noise:	77.4	74.9	71.9	71.7	78.7	78.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	166	358	771	1,661
CNEL:	172	371	800	1,724

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project
Road Name: Indian St.
Road Segment: s/o Grove View Rd.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,743 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,474 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	76.83%
Medium Trucks:	74.7%	4.3%	20.9%	9.15%
Heavy Trucks:	66.1%	9.8%	24.1%	14.03%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.75	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-11.00	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-9.14	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.2	66.4	62.7	64.4	71.0	71.2
Medium Trucks:	70.8	68.7	62.4	64.5	71.6	71.7
Heavy Trucks:	77.0	74.4	72.2	71.3	78.2	78.5
Vehicle Noise:	78.5	76.0	73.0	72.8	79.7	80.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	195	421	906	1,952
CNEL:	203	437	941	2,027

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project
Road Name: Indian St.
Road Segment: s/o Driveway 1
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,324 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,332 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	76.44%
Medium Trucks:	74.7%	4.3%	20.9%	9.28%
Heavy Trucks:	66.1%	9.8%	24.1%	14.28%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-2.22	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-11.37	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-9.50	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.7	66.0	62.3	63.9	70.6	70.7
Medium Trucks:	70.4	68.4	62.0	64.1	71.2	71.3
Heavy Trucks:	76.7	74.1	71.8	70.9	77.9	78.1
Vehicle Noise:	78.1	75.6	72.7	72.4	79.3	79.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	184	397	855	1,842
CNEL:	191	412	888	1,913

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project
Road Name: Indian St.
Road Segment: n/o Harley Knox Bl.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,317 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,432 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	76.54%
Medium Trucks:	74.7%	4.3%	20.9%	9.28%
Heavy Trucks:	66.1%	9.8%	24.1%	14.19%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.90	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-11.06	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-9.22	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.0	66.3	62.6	64.2	70.9	71.1
Medium Trucks:	70.7	68.7	62.3	64.4	71.5	71.7
Heavy Trucks:	76.9	74.3	72.1	71.2	78.1	78.4
Vehicle Noise:	78.4	75.9	72.9	72.7	79.6	79.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	193	415	894	1,927
CNEL:	200	431	929	2,001

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Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project
Road Name: Nandina Av.
Road Segment: w/o Indian St.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,810 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	681 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	78.05%
Medium Trucks:	74.7%	4.3%	20.9%	9.18%
Heavy Trucks:	66.1%	9.8%	24.1%	12.78%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.58	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-13.88	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-12.44	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.6	61.9	58.1	59.8	66.5	66.6
Medium Trucks:	66.4	64.3	58.0	60.0	67.1	67.3
Heavy Trucks:	72.6	70.0	67.7	66.9	73.8	74.1
Vehicle Noise:	74.0	71.5	68.6	68.3	75.3	75.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	99	212	458	986
CNEL:	102	221	475	1,024

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project
Road Name: Nandina Av.
Road Segment: e/o Indian St.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,475 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	448 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.83%
Medium Trucks:	74.7%	4.3%	20.9%	9.19%
Heavy Trucks:	66.1%	9.8%	24.1%	12.98%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-6.42	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-15.70	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-14.20	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.8	60.0	56.3	57.9	64.6	64.8
Medium Trucks:	64.5	62.5	56.1	58.2	65.3	65.5
Heavy Trucks:	70.8	68.2	66.0	65.1	72.0	72.3
Vehicle Noise:	72.3	69.8	66.8	66.6	73.5	73.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	75	162	349	751
CNEL:	78	168	362	780

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project
Road Name: Harley Knox Bl.
Road Segment: w/o I-215 NB Ramps
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,264 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,426 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	76.13%
Medium Trucks:	74.7%	4.3%	20.9%	9.45%
Heavy Trucks:	66.1%	9.8%	24.1%	14.43%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.48	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-10.54	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-8.70	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.9	64.1	60.4	62.1	68.7	68.9
Medium Trucks:	68.9	66.8	60.5	62.5	69.7	69.8
Heavy Trucks:	75.5	72.9	70.7	69.8	76.7	77.0
Vehicle Noise:	76.8	74.3	71.4	71.1	78.0	78.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	189	406	876	1,887
CNEL:	196	422	910	1,960

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project
Road Name: Harley Knox Bl.
Road Segment: e/o I-215 NB Ramps
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	18,331 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,833 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	76.61%
Medium Trucks:	74.7%	4.3%	20.9%	9.36%
Heavy Trucks:	66.1%	9.8%	24.1%	14.02%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.36	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-9.49	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-7.74	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.0	65.3	61.5	63.2	69.9	70.0
Medium Trucks:	69.9	67.9	61.5	63.6	70.7	70.8
Heavy Trucks:	76.5	73.9	71.6	70.7	77.7	78.0
Vehicle Noise:	77.8	75.3	72.4	72.1	79.0	79.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	220	474	1,021	2,199
CNEL:	228	492	1,060	2,284

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Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project
Road Name: Harley Knox Bl.
Road Segment: w/o Patterson Av.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	18,236 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,824 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	76.61%
Medium Trucks:	74.7%	4.3%	20.9%	9.36%
Heavy Trucks:	66.1%	9.8%	24.1%	14.03%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.39	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-9.51	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-7.76	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.0	65.2	61.5	63.2	69.8	70.0
Medium Trucks:	69.9	67.8	61.5	63.6	70.7	70.8
Heavy Trucks:	76.4	73.9	71.6	70.7	77.7	77.9
Vehicle Noise:	77.8	75.3	72.4	72.1	79.0	79.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	219	472	1,017	2,192
CNEL:	228	490	1,057	2,276

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project
Road Name: Harley Knox Bl.
Road Segment: w/o Webster Av.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,137 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,714 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	76.57%
Medium Trucks:	74.7%	4.3%	20.9%	9.35%
Heavy Trucks:	66.1%	9.8%	24.1%	14.08%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.66	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-9.79	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-8.01	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.7	65.0	61.2	62.9	69.6	69.7
Medium Trucks:	69.6	67.6	61.2	63.3	70.4	70.6
Heavy Trucks:	76.2	73.6	71.3	70.5	77.4	77.7
Vehicle Noise:	77.5	75.0	72.1	71.8	78.7	79.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	211	454	978	2,106
CNEL:	219	471	1,015	2,188

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project
Road Name: Harley Knox Bl.
Road Segment: w/o Indian St.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	20,563 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,056 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	76.78%
Medium Trucks:	74.7%	4.3%	20.9%	9.34%
Heavy Trucks:	66.1%	9.8%	24.1%	13.88%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.15	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-9.00	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-7.28	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.5	65.8	62.1	63.7	70.4	70.5
Medium Trucks:	70.4	68.3	62.0	64.1	71.2	71.3
Heavy Trucks:	76.9	74.3	72.1	71.2	78.1	78.4
Vehicle Noise:	78.3	75.8	72.9	72.6	79.5	79.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	236	509	1,096	2,362
CNEL:	245	529	1,139	2,453

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project
Road Name: Harley Knox Bl.
Road Segment: e/o Indian St.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,208 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	821 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	78.25%
Medium Trucks:	74.7%	4.3%	20.9%	9.09%
Heavy Trucks:	66.1%	9.8%	24.1%	12.66%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.76	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-13.11	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-11.67	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.6	61.9	58.1	59.8	66.5	66.6
Medium Trucks:	66.3	64.2	57.9	60.0	67.1	67.2
Heavy Trucks:	72.5	69.9	67.7	66.8	73.7	74.0
Vehicle Noise:	74.0	71.5	68.5	68.3	75.2	75.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	122	264	568	1,224
CNEL:	127	274	590	1,271

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Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 Without Project
Road Name: Indian St.
Road Segment: n/o Grove View Rd.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	31,231 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,123 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.56	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-7.68	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-6.25	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.5	69.8	66.0	67.7	74.3	74.5
Medium Trucks:	74.1	72.0	65.7	67.8	74.9	75.0
Heavy Trucks:	79.9	77.3	75.1	74.2	81.1	81.4
Vehicle Noise:	81.5	79.0	76.0	75.8	82.7	83.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	310	668	1,440	3,103
CNEL:	322	694	1,495	3,220

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 Without Project
Road Name: Indian St.
Road Segment: s/o Grove View Rd.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	26,360 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,636 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.83	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-8.42	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-6.98	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.8	69.0	65.3	66.9	73.6	73.8
Medium Trucks:	73.4	71.3	65.0	67.0	74.2	74.3
Heavy Trucks:	79.2	76.6	74.3	73.4	80.4	80.7
Vehicle Noise:	80.8	78.3	75.3	75.1	82.0	82.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	277	597	1,286	2,771
CNEL:	288	620	1,335	2,876

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 Without Project
Road Name: Indian St.
Road Segment: s/o Driveway 1
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	25,070 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,507 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.61	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-8.64	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-7.20	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.6	68.8	65.1	66.7	73.4	73.6
Medium Trucks:	73.1	71.1	64.7	66.8	73.9	74.1
Heavy Trucks:	79.0	76.4	74.1	73.2	80.2	80.4
Vehicle Noise:	80.5	78.0	75.0	74.8	81.8	82.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	268	577	1,244	2,680
CNEL:	278	599	1,291	2,782

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 Without Project
Road Name: Indian St.
Road Segment: n/o Harley Knox Bl.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	23,901 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,390 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.40	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-8.85	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-7.41	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.3	68.6	64.9	66.5	73.2	73.4
Medium Trucks:	72.9	70.9	64.5	66.6	73.7	73.9
Heavy Trucks:	78.7	76.2	73.9	73.0	80.0	80.2
Vehicle Noise:	80.3	77.8	74.8	74.6	81.6	81.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	260	559	1,205	2,596
CNEL:	269	580	1,251	2,694

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Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 Without Project
Road Name: Nandina Av.
Road Segment: w/o Indian St.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,900 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	890 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.004	Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.43	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-12.68	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-11.24	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.8	63.0	59.3	60.9	67.6	67.8
Medium Trucks:	67.6	65.5	59.2	61.2	68.3	68.5
Heavy Trucks:	73.8	71.2	68.9	68.1	75.0	75.3
Vehicle Noise:	75.2	72.7	69.8	69.5	76.5	76.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	118	255	550	1,184
CNEL:	123	265	571	1,230

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 Without Project
Road Name: Nandina Av.
Road Segment: e/o Indian St.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,143 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	714 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.004	Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.39	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-13.63	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-12.20	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.8	62.1	58.3	60.0	66.6	66.8
Medium Trucks:	66.6	64.5	58.2	60.3	67.4	67.5
Heavy Trucks:	72.8	70.2	68.0	67.1	74.0	74.3
Vehicle Noise:	74.3	71.8	68.8	68.6	75.5	75.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	102	220	475	1,023
CNEL:	106	229	493	1,062

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 Without Project
Road Name: Harley Knox Bl.
Road Segment: w/o I-215 NB Ramps
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	25,508 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,551 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.004	Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.14	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-8.11	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-6.67	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.5	66.8	63.0	64.7	71.4	71.5
Medium Trucks:	71.3	69.2	62.9	65.0	72.1	72.2
Heavy Trucks:	77.5	74.9	72.7	71.8	78.7	79.0
Vehicle Noise:	79.0	76.5	73.5	73.3	80.2	80.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	263	567	1,221	2,631
CNEL:	273	589	1,268	2,733

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 Without Project
Road Name: Harley Knox Bl.
Road Segment: e/o I-215 NB Ramps
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	33,350 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,335 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000	
Medium Trucks:	2.297	
Heavy Trucks:	8.004	Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.31	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-6.94	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-5.51	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.7	67.9	64.2	65.9	72.5	72.7
Medium Trucks:	72.5	70.4	64.1	66.1	73.3	73.4
Heavy Trucks:	78.7	76.1	73.9	73.0	79.9	80.2
Vehicle Noise:	80.1	77.6	74.7	74.4	81.4	81.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	315	678	1,460	3,146
CNEL:	327	704	1,517	3,267

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Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 Without Project
Road Name: Harley Knox Bl.
Road Segment: w/o Patterson Av.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	33,244 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,324 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004
Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.29	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-6.96	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-5.52	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.7	67.9	64.2	65.8	72.5	72.7
Medium Trucks:	72.4	70.4	64.0	66.1	73.2	73.4
Heavy Trucks:	78.7	76.1	73.8	73.0	79.9	80.2
Vehicle Noise:	80.1	77.6	74.7	74.4	81.3	81.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	314	676	1,457	3,140
CNEL:	326	702	1,513	3,260

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 Without Project
Road Name: Harley Knox Bl.
Road Segment: w/o Webster Av.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	31,647 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,165 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004
Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.08	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-7.17	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-5.73	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.5	67.7	64.0	65.6	72.3	72.5
Medium Trucks:	72.2	70.2	63.8	65.9	73.0	73.2
Heavy Trucks:	78.5	75.9	73.6	72.7	79.7	80.0
Vehicle Noise:	79.9	77.4	74.5	74.2	81.1	81.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	304	655	1,410	3,038
CNEL:	316	680	1,464	3,155

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 Without Project
Road Name: Harley Knox Bl.
Road Segment: w/o Indian St.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	35,084 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,508 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004
Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.53	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-6.72	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-5.28	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.9	68.2	64.4	66.1	72.7	72.9
Medium Trucks:	72.7	70.6	64.3	66.3	73.5	73.6
Heavy Trucks:	78.9	76.3	74.1	73.2	80.1	80.4
Vehicle Noise:	80.4	77.9	74.9	74.7	81.6	81.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	325	701	1,511	3,255
CNEL:	338	728	1,569	3,380

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 Without Project
Road Name: Harley Knox Bl.
Road Segment: e/o Indian St.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,725 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,273 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.86%
Medium Trucks:	74.7%	4.3%	20.9%	9.26%
Heavy Trucks:	66.1%	9.8%	24.1%	12.89%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004
Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.88	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-11.13	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-9.69	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.5	63.7	60.0	61.7	68.3	68.5
Medium Trucks:	68.3	66.2	59.9	61.9	69.1	69.2
Heavy Trucks:	74.5	71.9	69.7	68.8	75.7	76.0
Vehicle Noise:	76.0	73.4	70.5	70.3	77.2	77.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	166	357	768	1,655
CNEL:	172	370	798	1,719

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Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 + Project
Road Name: Indian St.
Road Segment: n/o Grove View Rd.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	31,365 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,137 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.89%
Medium Trucks:	74.7%	4.3%	20.9%	9.23%
Heavy Trucks:	66.1%	9.8%	24.1%	12.88%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.58	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-7.68	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-6.23	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.5	69.8	66.1	67.7	74.4	74.5
Medium Trucks:	74.1	72.0	65.7	67.8	74.9	75.0
Heavy Trucks:	79.9	77.3	75.1	74.2	81.1	81.4
Vehicle Noise:	81.5	79.0	76.0	75.8	82.7	83.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	311	670	1,443	3,110
CNEL:	323	695	1,498	3,228

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 + Project
Road Name: Indian St.
Road Segment: s/o Grove View Rd.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	27,300 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,730 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.30%
Medium Trucks:	74.7%	4.3%	20.9%	9.20%
Heavy Trucks:	66.1%	9.8%	24.1%	13.50%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.95	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-8.30	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-6.63	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.9	69.1	65.4	67.1	73.7	73.9
Medium Trucks:	73.5	71.4	65.1	67.2	74.3	74.4
Heavy Trucks:	79.5	76.9	74.7	73.8	80.7	81.0
Vehicle Noise:	81.1	78.5	75.6	75.3	82.3	82.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	289	624	1,344	2,895
CNEL:	301	647	1,395	3,005

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 + Project
Road Name: Indian St.
Road Segment: s/o Driveway 1
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	25,760 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,576 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.12%
Medium Trucks:	74.7%	4.3%	20.9%	9.27%
Heavy Trucks:	66.1%	9.8%	24.1%	13.61%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.69	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-8.52	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-6.85	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.6	68.9	65.2	66.8	73.5	73.6
Medium Trucks:	73.3	71.2	64.9	66.9	74.1	74.2
Heavy Trucks:	79.3	76.7	74.5	73.6	80.5	80.8
Vehicle Noise:	80.8	78.3	75.4	75.1	82.0	82.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	280	603	1,298	2,797
CNEL:	290	626	1,348	2,903

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 + Project
Road Name: Indian St.
Road Segment: n/o Harley Knox Bl.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	24,591 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,459 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.09%
Medium Trucks:	74.7%	4.3%	20.9%	9.27%
Heavy Trucks:	66.1%	9.8%	24.1%	13.64%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.48	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	81.00	-8.72	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-7.04	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.4	68.7	65.0	66.6	73.3	73.4
Medium Trucks:	73.1	71.0	64.7	66.7	73.9	74.0
Heavy Trucks:	79.1	76.5	74.3	73.4	80.3	80.6
Vehicle Noise:	80.6	78.1	75.2	74.9	81.9	82.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	271	585	1,260	2,715
CNEL:	282	607	1,308	2,818

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Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 + Project
Road Name: Nandina Av.
Road Segment: w/o Indian St.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,958 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	896 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	78.00%
Medium Trucks:	74.7%	4.3%	20.9%	9.20%
Heavy Trucks:	66.1%	9.8%	24.1%	12.80%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.39	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-12.68	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-11.24	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.8	63.0	59.3	61.0	67.6	67.8
Medium Trucks:	67.6	65.5	59.2	61.2	68.3	68.5
Heavy Trucks:	73.8	71.2	68.9	68.1	75.0	75.3
Vehicle Noise:	75.2	72.7	69.8	69.5	76.5	76.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	119	255	550	1,185
CNEL:	123	265	571	1,231

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 + Project
Road Name: Nandina Av.
Road Segment: e/o Indian St.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,219 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	722 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	50 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.84%
Medium Trucks:	74.7%	4.3%	20.9%	9.21%
Heavy Trucks:	66.1%	9.8%	24.1%	12.95%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	36.551
Medium Trucks:	36.308
Heavy Trucks:	36.332

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.34	1.94	-1.20	-4.61	0.000	0.000
Medium Trucks:	79.45	-13.61	1.98	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-12.13	1.98	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.9	62.1	58.4	60.0	66.7	66.9
Medium Trucks:	66.6	64.6	58.2	60.3	67.4	67.6
Heavy Trucks:	72.9	70.3	68.1	67.2	74.1	74.4
Vehicle Noise:	74.3	71.8	68.9	68.6	75.6	75.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	103	222	479	1,032
CNEL:	107	231	497	1,072

Monday, January 18, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 + Project
Road Name: Harley Knox Bl.
Road Segment: w/o I-215 NB Ramps
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	25,937 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,594 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	76.90%
Medium Trucks:	74.7%	4.3%	20.9%	9.36%
Heavy Trucks:	66.1%	9.8%	24.1%	13.73%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.16	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-7.98	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-6.32	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.5	66.8	63.1	64.7	71.4	71.5
Medium Trucks:	71.4	69.4	63.0	65.1	72.2	72.4
Heavy Trucks:	77.9	75.3	73.0	72.2	79.1	79.4
Vehicle Noise:	79.3	76.7	73.8	73.5	80.5	80.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	274	591	1,274	2,744
CNEL:	285	614	1,323	2,850

Monday, January 18, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 + Project
Road Name: Harley Knox Bl.
Road Segment: e/o I-215 NB Ramps
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	33,866 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,387 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.18%
Medium Trucks:	74.7%	4.3%	20.9%	9.31%
Heavy Trucks:	66.1%	9.8%	24.1%	13.50%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.34	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-6.85	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-5.24	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.7	68.0	64.2	65.9	72.6	72.7
Medium Trucks:	72.6	70.5	64.2	66.2	73.4	73.5
Heavy Trucks:	79.0	76.4	74.1	73.2	80.2	80.5
Vehicle Noise:	80.4	77.8	74.9	74.6	81.6	81.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	325	700	1,509	3,250
CNEL:	338	727	1,567	3,376

Monday, January 18, 2016

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 + Project
Road Name: Harley Knox Bl.
Road Segment: w/o Patterson Av.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	33,760 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,376 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.18%
Medium Trucks:	74.7%	4.3%	20.9%	9.31%
Heavy Trucks:	66.1%	9.8%	24.1%	13.50%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.32	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-6.86	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-5.25	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.7	67.9	64.2	65.9	72.5	72.7
Medium Trucks:	72.5	70.5	64.1	66.2	73.3	73.5
Heavy Trucks:	79.0	76.4	74.1	73.2	80.2	80.4
Vehicle Noise:	80.3	77.8	74.9	74.6	81.6	81.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	324	699	1,506	3,244
CNEL:	337	726	1,564	3,369

Monday, January 18, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 + Project
Road Name: Harley Knox Bl.
Road Segment: w/o Webster Av.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	32,192 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,219 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.17%
Medium Trucks:	74.7%	4.3%	20.9%	9.31%
Heavy Trucks:	66.1%	9.8%	24.1%	13.52%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.11	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-7.07	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-5.45	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.5	67.7	64.0	65.7	72.3	72.5
Medium Trucks:	72.3	70.3	63.9	66.0	73.1	73.3
Heavy Trucks:	78.8	76.2	73.9	73.0	80.0	80.2
Vehicle Noise:	80.1	77.6	74.7	74.4	81.4	81.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	314	677	1,460	3,144
CNEL:	327	704	1,516	3,266

Monday, January 18, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 + Project
Road Name: Harley Knox Bl.
Road Segment: w/o Indian St.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	35,629 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,563 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	77.24%
Medium Trucks:	74.7%	4.3%	20.9%	9.30%
Heavy Trucks:	66.1%	9.8%	24.1%	13.46%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.56	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-6.63	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-5.03	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.9	68.2	64.5	66.1	72.8	72.9
Medium Trucks:	72.8	70.7	64.4	66.4	73.6	73.7
Heavy Trucks:	79.2	76.6	74.3	73.4	80.4	80.7
Vehicle Noise:	80.6	78.1	75.1	74.9	81.8	82.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	336	723	1,558	3,357
CNEL:	349	751	1,618	3,487

Monday, January 18, 2016

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Year 2020 + Project
Road Name: Harley Knox Bl.
Road Segment: e/o Indian St.
Project Name: Indian Street Commerce
Job Number: 9914

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,870 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,287 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	73 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	63.6%	6.8%	29.6%	78.11%
Medium Trucks:	74.7%	4.3%	20.9%	9.15%
Heavy Trucks:	66.1%	9.8%	24.1%	12.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	41.446
Medium Trucks:	41.232
Heavy Trucks:	41.253

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.81	1.12	-1.20	-4.67	0.000	0.000
Medium Trucks:	79.45	-11.13	1.15	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-9.69	1.15	-1.20	-5.38	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.6	63.8	60.1	61.7	68.4	68.6
Medium Trucks:	68.3	66.2	59.9	61.9	69.1	69.2
Heavy Trucks:	74.5	71.9	69.7	68.8	75.7	76.0
Vehicle Noise:	76.0	73.5	70.5	70.3	77.2	77.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	166	357	769	1,657
CNEL:	172	371	799	1,721

Monday, January 18, 2016

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 9.1:

REFERENCE DISTRIBUTION/WAREHOUSE NOISE SOURCE PHOTOS

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Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Reference Measurement: Nature's Best
16081 Fern Avenue, Chino



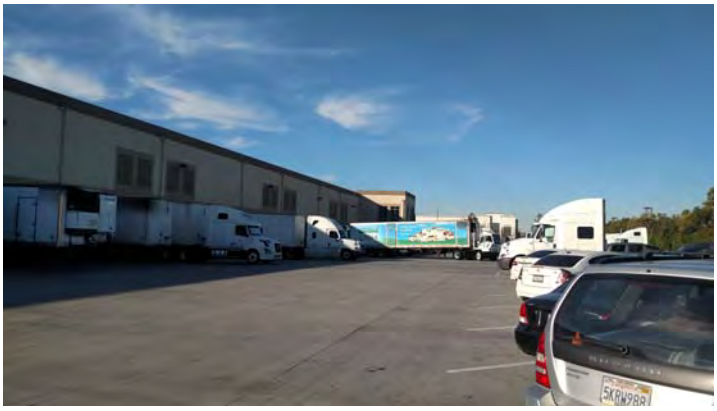
Nature's Best_01



Nature's Best_02



Nature's Best_03



Nature's Best_04



Nature's Best_05



Nature's Best_06

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Reference Measurement: Nature's Best
16081 Fern Avenue, Chino



Nature's Best_07



Nature's Best_08



Nature's Best_09



Nature's Best_10



Source_1-1



Source_1-2

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

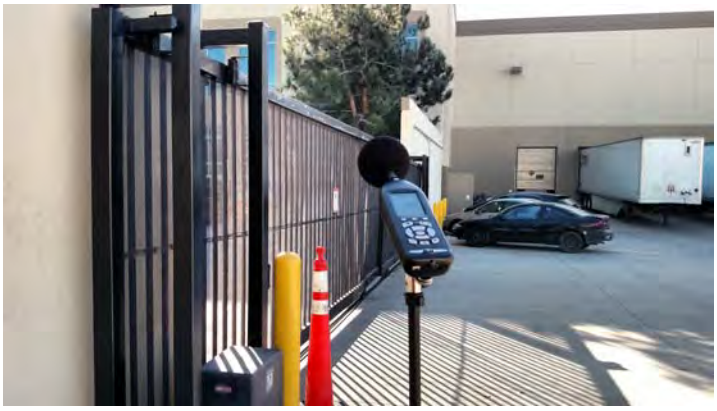
Reference Measurement: Nature's Best
16081 Fern Avenue, Chino



Source_1-3



Source_1-4



Source_2-1



Source_2-2



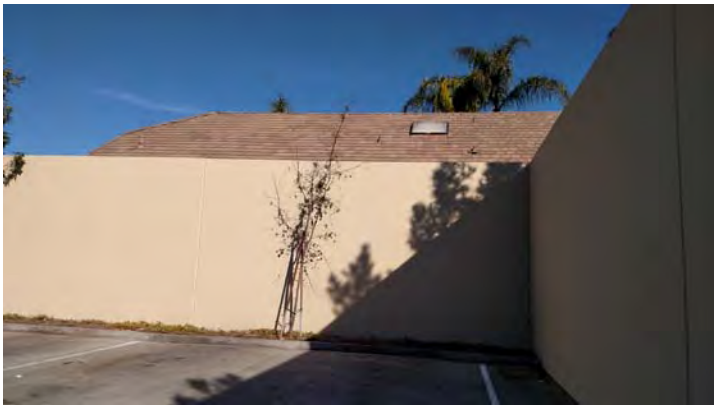
Source_2-3



Source_2-4

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

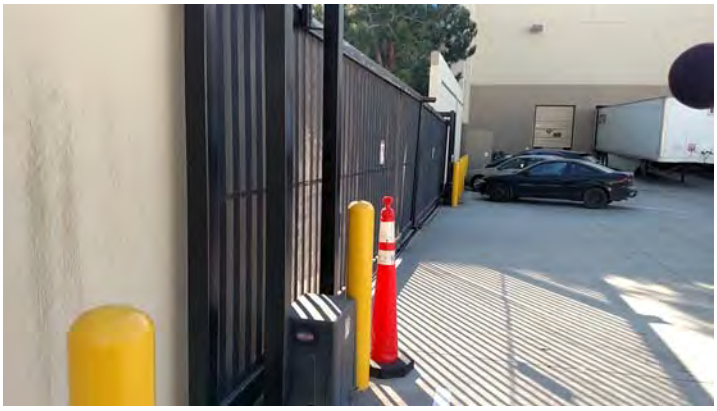
Reference Measurement: Nature's Best
16081 Fern Avenue, Chino



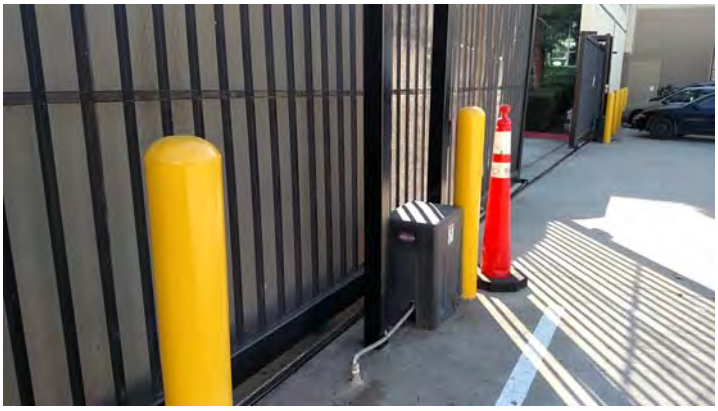
Source_2-5



Source_2-6



Source_2-7



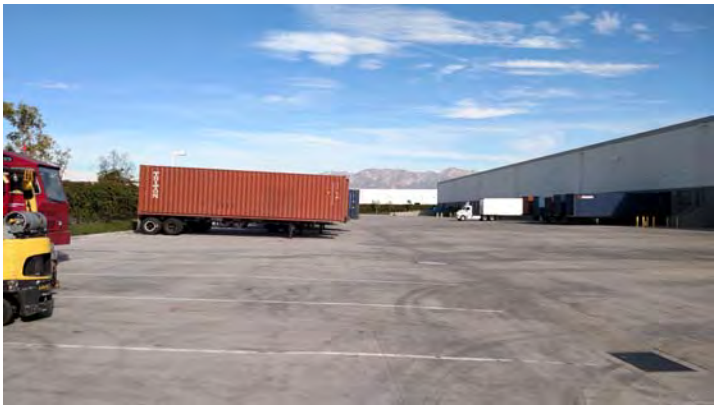
Source_2-8

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

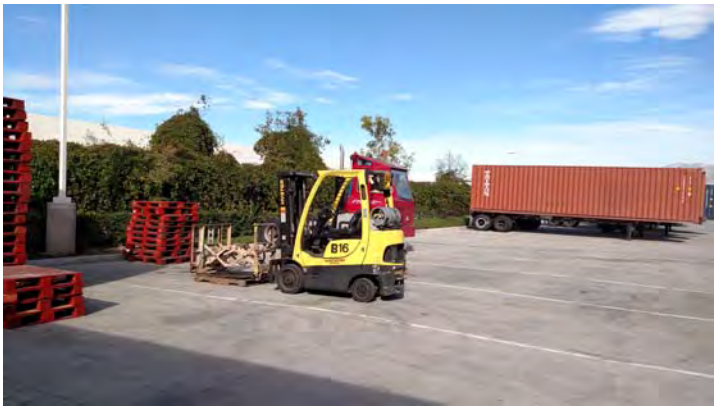
Reference Measurement: Motivational Fulfillment
6810 Bickmore Avenue, Chino



Motivational Fulfillment_01



Motivational Fulfillment_02



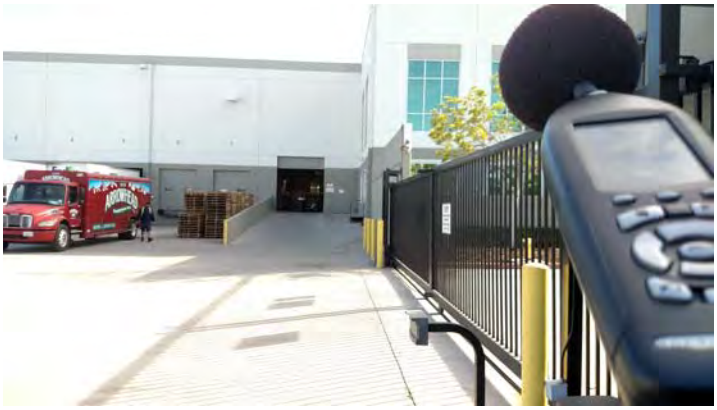
Motivational Fulfillment_03



Source_1-1



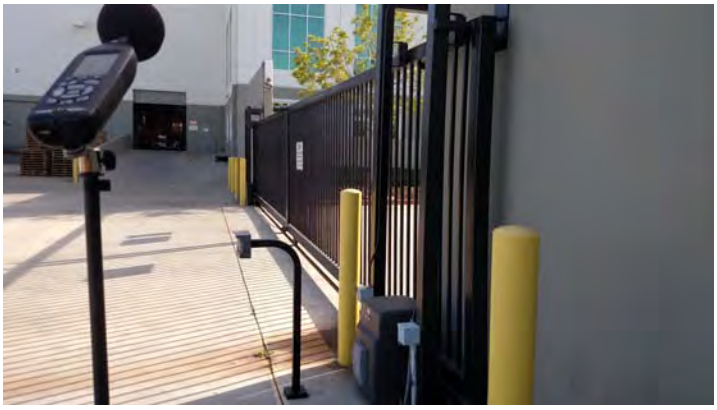
Source_1-2



Source_1-3

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Reference Measurement: Motivational Fulfillment
6810 Bickmore Avenue, Chino



Source_1-4



Source_2-1



Source_2-2



Source_2-3



Source_2-4



Source_2-5

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

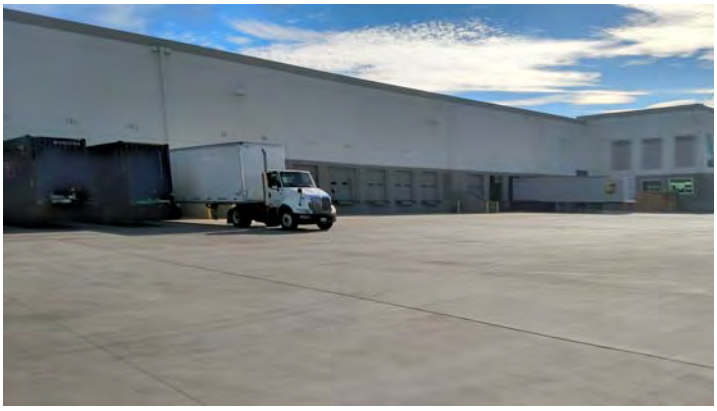
Reference Measurement: Motivational Fulfillment
6810 Bickmore Avenue, Chino



Source_2-6



Source_2-7



Source_2-8



Source_2-9

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Reference **Measurement: Veg Fresh Farms / FedEx**



IMG_0857
33, 51' 31.200000", 117, 54' 48.000000"



IMG_0862
33, 51' 30.600000", 117, 54' 48.600000"



IMG_0863
33, 51' 30.600000", 117, 54' 48.000000"



IMG_0872
33, 51' 33.000000", 117, 54' 42.600000"

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX 9.2:

STATIONARY/AREA-SOURCE NOISE CALCULATIONS

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Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

STATIONARY SOURCE NOISE PREDICTION MODEL

6/23/2016

Observer Location: **R1**
Source: Truck Idle/Reefer Activity
Condition: Operational

Project Name: Indian Street Commerce
Job Number: 9914
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,577.0	feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	2,577.0	feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	0.0	feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,468.0	feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,463.0	feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,468.0	feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	30.0	70.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,577.0	-38.7	-38.7	-38.7	-38.7	-38.7	-38.7
Shielding (Barrier Attenuation)	2,577.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		31.4	-38.7	-38.7	-38.7	-38.7	-38.7
60 Minute Hourly Adjustment		**31.4**	**-38.7**	**-38.7**	**-38.7**	**-38.7**	**-38.7**

STATIONARY SOURCE NOISE PREDICTION MODEL

6/23/2016

Observer Location: **R2**
Source: Truck Idle/Reefer Activity
Condition: Operational

Project Name: Indian Street Commerce
Job Number: 9914
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	3,461.0	feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	3,461.0	feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	0.0	feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,471.0	feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,468.0	feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,471.0	feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	30.0	70.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,461.0	-41.2	-41.2	-41.2	-41.2	-41.2	-41.2
Shielding (Barrier Attenuation)	3,461.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		28.9	-41.2	-41.2	-41.2	-41.2	-41.2
60 Minute Hourly Adjustment		**28.9**	**-41.2**	**-41.2**	**-41.2**	**-41.2**	**-41.2**

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STATIONARY SOURCE NOISE PREDICTION MODEL

6/23/2016

Observer Location: **R3**
Source: Truck Idle/Reefer Activity
Condition: Operational

Project Name: Indian Street Commerce
Job Number: 9914
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	3,764.0	feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	3,764.0	feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	0.0	feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,477.0	feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,468.0	feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,477.0	feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	30.0	70.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,764.0	-42.0	-42.0	-42.0	-42.0	-42.0	-42.0
Shielding (Barrier Attenuation)	3,764.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		28.1	-42.0	-42.0	-42.0	-42.0	-42.0
60 Minute Hourly Adjustment		**28.1**	**-42.0**	**-42.0**	**-42.0**	**-42.0**	**-42.0**

STATIONARY SOURCE NOISE PREDICTION MODEL

6/23/2016

Observer Location: **R4**
Source: Truck Idle/Reefer Activity
Condition: Operational

Project Name: Indian Street Commerce
Job Number: 9914
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	3,333.0	feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	3,333.0	feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	0.0	feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,484.0	feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,468.0	feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,484.0	feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	30.0	70.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,333.0	-40.9	-40.9	-40.9	-40.9	-40.9	-40.9
Shielding (Barrier Attenuation)	3,333.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		29.2	-40.9	-40.9	-40.9	-40.9	-40.9
60 Minute Hourly Adjustment		**29.2**	**-40.9**	**-40.9**	**-40.9**	**-40.9**	**-40.9**

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STATIONARY SOURCE NOISE PREDICTION MODEL

6/23/2016

Observer Location: **R5**
Source: Truck Idle/Reefer Activity
Condition: Operational

Project Name: Indian Street Commerce
Job Number: 9914
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	4,269.0	feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	4,269.0	feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	0.0	feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,489.0	feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,468.0	feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,489.0	feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	30.0	70.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	4,269.0	-43.1	-43.1	-43.1	-43.1	-43.1	-43.1
Shielding (Barrier Attenuation)	4,269.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		27.0	-43.1	-43.1	-43.1	-43.1	-43.1
60 Minute Hourly Adjustment		**27.0**	**-43.1**	**-43.1**	**-43.1**	**-43.1**	**-43.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

6/23/2016

Observer Location: **R1**
Source: Roof-Top Mech. Vent. Equipment
Condition: Operational

Project Name: Indian Street Commerce
Job Number: 9914
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,192.0	feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	2,192.0	feet	*Noise Source Height:*	5.0 feet
Barrier Distance to Observer:	0.0	feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,468.0	feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,483.0	feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,468.0	feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,192.0	-52.8	-52.8	-52.8	-52.8	-52.8	-52.8
Shielding (Barrier Attenuation)	2,192.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		24.4	-52.8	-52.8	-52.8	-52.8	-52.8
39 Minute Hourly Adjustment		**22.5**	**-54.7**	**-54.7**	**-54.7**	**-54.7**	**-54.7**

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STATIONARY SOURCE NOISE PREDICTION MODEL

6/23/2016

Observer Location: **R2**
Source: Roof-Top Mech. Vent. Equipment
Condition: Operational

Project Name: Indian Street Commerce
Job Number: 9914
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	3,595.0	feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	3,595.0	feet	*Noise Source Height:*	5.0 feet
Barrier Distance to Observer:	0.0	feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,471.0	feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,488.0	feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,471.0	feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,595.0	-57.1	-57.1	-57.1	-57.1	-57.1	-57.1
Shielding (Barrier Attenuation)	3,595.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		20.1	-57.1	-57.1	-57.1	-57.1	-57.1
39 Minute Hourly Adjustment		**18.2**	**-59.0**	**-59.0**	**-59.0**	**-59.0**	**-59.0**

STATIONARY SOURCE NOISE PREDICTION MODEL

6/23/2016

Observer Location: **R3**
Source: Roof-Top Mech. Vent. Equipment
Condition: Operational

Project Name: Indian Street Commerce
Job Number: 9914
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	3,876.0	feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	3,876.0	feet	*Noise Source Height:*	5.0 feet
Barrier Distance to Observer:	0.0	feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,477.0	feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,488.0	feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,477.0	feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,876.0	-57.8	-57.8	-57.8	-57.8	-57.8	-57.8
Shielding (Barrier Attenuation)	3,876.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		19.4	-57.8	-57.8	-57.8	-57.8	-57.8
39 Minute Hourly Adjustment		**17.5**	**-59.7**	**-59.7**	**-59.7**	**-59.7**	**-59.7**

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STATIONARY SOURCE NOISE PREDICTION MODEL

6/23/2016

Observer Location: **R4**
Source: Roof-Top Mech. Vent. Equipment
Condition: Operational

Project Name: Indian Street Commerce
Job Number: 9914
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	3,352.0	feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	3,352.0	feet	*Noise Source Height:*	5.0 feet
Barrier Distance to Observer:	0.0	feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,484.0	feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,488.0	feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,484.0	feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,352.0	-56.5	-56.5	-56.5	-56.5	-56.5	-56.5
Shielding (Barrier Attenuation)	3,352.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		20.7	-56.5	-56.5	-56.5	-56.5	-56.5
39 Minute Hourly Adjustment		**18.8**	**-58.4**	**-58.4**	**-58.4**	**-58.4**	**-58.4**

STATIONARY SOURCE NOISE PREDICTION MODEL

6/23/2016

Observer Location: **R5**
Source: Roof-Top Mech. Vent. Equipment
Condition: Operational

Project Name: Indian Street Commerce
Job Number: 9914
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	4,067.0	feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	4,067.0	feet	*Noise Source Height:*	5.0 feet
Barrier Distance to Observer:	0.0	feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,489.0	feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,488.0	feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,489.0	feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	4,067.0	-58.2	-58.2	-58.2	-58.2	-58.2	-58.2
Shielding (Barrier Attenuation)	4,067.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		19.0	-58.2	-58.2	-58.2	-58.2	-58.2
39 Minute Hourly Adjustment		**17.1**	**-60.1**	**-60.1**	**-60.1**	**-60.1**	**-60.1**

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APPENDIX 10.1:

CONSTRUCTION REFERENCE NOISE LEVEL MEASUREMENTS MEMO

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URBAN CROSSROADS
41 Corporate Park | Suite 300 | Irvine, CA 92606 | (949) 660-1994
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SUBJECT: CONSTRUCTION REFERENCE NOISE LEVEL MEASUREMENTS MEMO

This Construction Reference Noise Level Measurements Memo has been prepared to summarize the sample reference noise level measurements collected by Urban Crossroads, Inc. To describe peak construction noise activities, we have historically relied on reference noise level measurements provided in the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM). However, our experience demonstrates that the RCNM significantly overstates the predicted construction noise levels. This is largely due the fact that RCNM is based on construction equipment data collected from the Central Artery/Tunnel project in Boston, Massachusetts in the early 1990's. Due to substantial changes in the air quality emission requirements in the State of California Air Resources Board (ARB), the RCNM reference noise level measurements do not adequately describe modern construction equipment noise levels. In addition, the RCNM methodology places all construction equipment at a single point near the property line. This scenario simply does not occur in the real world as typical construction activity represents a variety of equipment operating at different locations throughout the project site.

REFERENCE NOISE LEVEL MEASUREMENTS

To estimate a project's construction-related noise levels, sample reference noise level measurements of similar construction activities were collected by Urban Crossroads, Inc. to describe the different stages of construction. The reference noise levels are intended to represent typical construction noise levels when multiple pieces of equipment are operating simultaneously at a construction site. The following reference noise level measurements were collected from existing construction operations with similar equipment as those expected with future construction of comparable land uses. Appendix A includes the data collected from each of the reference noise level measurements adjusted to present noise levels at a uniform reference distance of 50 feet. Appendix B includes the reference noise source photos by identification number ("ID"). Table 1 summarizes the reference noise level measurements. The reference noise level measurements are identified by land use type and location below.

BUSINESS PARK CONSTRUCTION SITE, CITY OF IRVINE

On Wednesday, October 14th, 2015, Urban Crossroads, Inc. collected short-term construction noise level measurements at a business park construction site located at the northwest corner of Barranca Parkway and Alton Parkway in the City of Irvine. The reference noise level measurements include the following noise source activities: a truck pass-by and background dozer activity (ID 1) and dozer activity (ID 2). Both measurements were taken at a distance of approximately 30 feet from the source and represent typical construction activities during the grading stage of construction.

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RESIDENTIAL CONSTRUCTION SITE, CITY OF RANCHO MISSION VIEJO

On Tuesday, October 20th, 2015, Urban Crossroads, Inc. collected short-term construction noise level measurements at a residential construction site located in the unincorporated area within the County of Orange known as Rancho Mission Viejo. The reference noise level measurements include the following noise source activities: construction vehicle maintenance (ID 3), foundation trenching (ID 4), rough grading activities (ID 5), and residential building framing (ID 6). All reference measurements were taken at this location at a distance of approximately 30 feet from the noise source.

INDUSTRIAL SITE, CITY OF ONTARIO

Additional short-term reference noise level measurements were collected on Friday, October 30th, 2015, by Urban Crossroads, Inc. at an active industrial construction site in the City of Ontario. The reference noise level measurements represent the grading activities associated with industrial/warehousing construction. Five reference noise level measurements were taken at this location to describe: a water truck pass-by and backup alarm (ID 7), a dozer pass-by (ID 8), two scrapers and a water truck pass-by (ID 9), two scrapers pass-by (ID 10), and scraper, water truck and dozer activities over a 30-minute period (ID 11). All reference measurements taken at this location were at a distance of approximately 30 feet from the source.

INDUSTRIAL SITE, CITY OF REDLANDS

On July 1st, 2015, Urban Crossroads, Inc. collected short-term construction noise level measurements of a nighttime concrete pour at an industrial construction site located at 27334 San Bernardino Avenue in the City of Redlands. The reference noise level measurements include the following nighttime building construction and paving-related noise source activities: concrete mixer truck movements (ID 12), concrete paver activities (ID 13), concrete mixer pour & paving activities (ID 14), concrete mixer backup alarms and air brakes (ID 15), and a one-hour measurement over the duration of all reference measurements at this location of concrete mixer pour activities (ID 16).

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TABLE 1: CONSTRUCTION REFERENCE NOISE LEVEL MEASUREMENTS SUMMARY

ID	Noise Source	Reference Distance From Source (Feet)	Reference Noise Levels @ Reference Distance		Reference Noise Levels @ 50 Feet[6]	
			dBA Leq	dBA Lmax	dBA Leq	dBA Lmax
1	Truck Pass-Bys & Dozer Activity[1]	30'	63.6	68.1	59.2	63.7
2	Dozer Activity[1]	30'	68.6	76.4	64.2	72.0
3	Construction Vehicle Maintenance Activities[2]	30'	71.9	74.8	67.5	70.4
4	Foundation Trenching[2]	30'	72.6	74.9	68.2	70.5
5	Rough Grading Activities[2]	30'	77.9	84.8	73.5	80.4
6	Residential Framing[3]	30'	66.7	76.7	62.3	72.3
7	Water Truck Pass-By & Backup Alarm[4]	30'	76.3	82.3	71.9	77.9
8	Dozer Pass-By[4]	30'	84.0	89.9	79.6	85.5
9	Two Scrapers & Water Truck Pass-By[4]	30'	83.4	89.0	79.0	84.6
10	Two Scrapers Pass-By[4]	30'	83.7	86.9	79.3	82.5
11	Scraper, Water Truck, & Dozer Activity[4]	30'	79.7	87.7	75.3	83.3
12	Concrete Mixer Truck Movements[5]	50'	71.2	73.1	71.2	73.1
13	Concrete Paver Activities[5]	30'	70.0	75.7	65.6	71.3
14	Concrete Mixer Pour & Paving Activities[5]	30'	70.3	76.3	65.9	71.9
15	Concrete Mixer Backup Alarms & Air Brakes[5]	50'	71.6	78.8	71.6	78.8
16	Concrete Mixer Pour Activities[5]	50'	67.7	79.2	67.7	79.2

[1] As measured by Urban Crossroads, Inc. on 10/14/15 at a business park construction site located at the northwest corner of Barranca Parkway and Alton Parkway in the City of Irvine.
[2] As measured by Urban Crossroads, Inc. on 10/20/15 at a construction site located in Rancho Mission Viejo.
[3] As measured by Urban Crossroads, Inc. on 10/20/15 at a residential construction site located in Rancho Mission Viejo.
[4] As measured by Urban Crossroads, Inc. on 10/30/15 during grading operations within an industrial construction site located in the City of Ontario.
[5] Reference noise level measurements were collected from a nighttime concrete pour at an industrial construction site, located at 27334 San Bernardino Avenue in the City of Redlands, between 1:00 a.m. to 2:00 a.m. on 7/1/15.
[6] Reference noise levels are calculated at 50 feet using a drop off rate of 6 dBA per doubling of distance (point source).

MODELED AND MEASURED CONSTRUCTION NOISE LEVELS

A RCNM construction noise analysis was prepared by Urban Crossroads, Inc. on October 17th, 2014 for an industrial project site in the City of Ontario. The noise levels due to construction in the industrial portion of the project site (Planning Area 1) were estimated at up to thirteen receiver locations to determine the potential noise impacts at adjacent sensitive land uses. Returning to the same industrial project site over a year later, in October 2015, Urban Crossroads, Inc. collected noise level measurements at the same receiver locations to validate the modeled RCNM construction noise levels with actual construction noise level measurements collected in the field. The grading stage of construction was chosen for this comparison since grading activities typically represent the worst-case construction activities due to the number and size of the mobile equipment used in the grading process.

MODELED CONSTRUCTION NOISE LEVELS

As shown on Table 2, the modeled RCNM noise levels during the grading stage of construction were estimated to produce a noise level approaching 92.6 dBA Leq at a distance of 50 feet from the project site boundary. The RCNM noise levels reflect the combined construction noise level impacts of excavators, graders, tractors, loaders, backhoes, rubber tired dozers, and scrapers producing a noise level of 92.6 dBA Leq. At nearby receiver locations, this results in a short-term construction noise level approaching 88.2 dBA Leq.

TABLE 2: RCNM MODELED CONSTRUCTION NOISE LEVELS

Equipment Type[1]	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (dBA Leq)	Combined Level @ 50 Feet (dBA Leq)
Excavator	2	40%	3.2	81.0	80.0
Grader	8	40%	3.2	85.0	90.1
Tractor/Loader/Backhoe	5	40%	3.2	78.0	81.0
Rubber Tired Dozer	2	40%	3.2	79.0	78.0
Scraper	5	40%	3.2	84.0	87.0
Combined Hourly Noise Levels 50 Feet (Leq dBA)					92.6

Receiver Location	Distance To Property Line (Feet)[4]	Distance Attenuation (dBA Leq)[5]	Estimated Noise Barrier Attenuation (dBA Leq)	Construction Noise Level (dBA Leq)
R2	83'	-4.4	0.0	88.2
R3	78'	-3.9	-5.6	83.1

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.
[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.
[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.
[4] Distance from the nearest point of construction activity to the nearest receiver.
[5] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

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MEASURED CONSTRUCTION NOISE LEVELS

To describe the actual construction noise levels based on typical conditions, short-term construction noise level measurements were collected in the field during grading activities at receiver locations R2 and R3. Appendix C includes study area photos of the measurement locations and the construction activities observed from each location at the project site. To validate the construction noise levels, measurements were collected during continuous on-site grading activities on Friday, October 30th, and again on Friday, November 6th, 2015.

Grading activities observed on the site during the short-term noise level measurements include water trucks queuing and refilling at a stationary tank, trencher activity, up to three scrapers operating simultaneously, and dozer activity. The water truck queuing activity was the closest equipment observed near the project site boundaries due to the stationary location of the water refill tank, at a distance of approximately 100 feet from the receiver locations. The trencher was observed at a distance of roughly 600 feet from the receiver locations, and the scrapers and dozer activities were at approximately 900 feet from the receiver locations. Additional stationary scrapers were located at a distance of approximately 700 feet from the receiver locations. Additional background construction noise sources include forklifts, cranes, and man lifts used in the building construction stage of a portion of the site located roughly 900 feet southeast of the receiver locations. The construction activities observed during the short-term measurements represent typical grading activities within an industrial construction site, with multiple pieces of equipment operating at varying distances from the project site boundaries.

Table 3 shows the modeled RCNM noise levels using the actual distances from each receiver location to the nearest equipment activity observed during the short-term noise level measurements. Based on the RCNM model, the peak grading construction noise levels would range from 80.9 to 86.5 dBA Leq when equipment is located at 100 feet from each receiver location. By calculating the modeled RCNM noise level at each location, a comparison can be made between the modeled and measured grading construction noise levels to calibrate the construction noise model.

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TABLE 3: MODELED CONSTRUCTION NOISE LEVELS BASED ON ACTUAL EQUIPMENT DISTANCES

Equipment Type[1]	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (dBA Leq)	Combined Level @ 50 Feet (dBA Leq)
Excavator	2	40%	3.2	81.0	80.0
Grader	8	40%	3.2	85.0	90.1
Tractor/Loader/Backhoe	5	40%	3.2	78.0	81.0
Rubber Tired Dozer	2	40%	3.2	79.0	78.0
Scraper	5	40%	3.2	84.0	87.0
Combined Hourly Noise Levels 50 Feet (Leq dBA)					92.6

Receiver Location	Distance To Closest Equipment Activity (Feet)[4]	Distance Attenuation (dBA Leq)[5]	Estimated Noise Barrier Attenuation (dBA Leq)	Construction Noise Level (dBA Leq)
R2	100'	-6.0	0.0	86.5
R3	100'	-6.0	-5.6	80.9

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.
[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.
[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.
[4] Distance from the nearest point of construction activity to the nearest receiver.
[5] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

To determine the project-only construction noise levels at each receiver location during the grading activities observed at the project site, the ambient without project noise level measurements are compared to the short-term with project noise level measurements. The ambient noise level measurements from the original noise study are shown on Table 4 in addition to the new short-term noise level measurements collected during typical grading activity at the receiver locations on Day 1, Friday, October 30th 2015. By subtracting the previous ambient noise level from the new combined (project construction plus ambient) noise level measurements at each receiver, the project-only construction noise levels can be logarithmically calculated. Table 4 shows the project-only construction noise levels ranged from 61.4 to 63.4 dBA Leq, and are significantly lower than those modeled with the RCNM at the same receiver locations.

Based on the Day 1 analysis, the differences between the peak RCNM model and typical measured construction noise levels range from 19.6 to 23.2 dBA Leq. This analysis demonstrates how the RCNM overstates the potential construction noise level impacts by placing all equipment at a single point at the project site boundary. In reality, the grading equipment within the project site was observed to operate in different locations throughout the project site. . In addition, the typical construction noise levels

measured at the receiver locations reflect modern construction equipment noise level emissions that are largely overstated using the older RCNM reference noise levels.

TABLE 4: DAY 1 CONSTRUCTION NOISE LEVEL COMPARISON

Original Noise Study			Calibration			
Receiver Location[1]	Measured Daytime Ambient Noise Levels (dBA Leq)[2]	Peak Modeled RCNM Grading Construction Noise Levels (dBA Leq)[3]	Calculated RCNM Noise Levels to Closest Observed Equipment (dBA Leq)[4]	Measured Typical Grading Construction Noise Levels at Receivers (dBA Leq)[5]	Calculated Project-Only Construction Noise Levels (dBA Leq)[6]	Difference Between Modeled & Measured Noise Levels (dBA Leq)[7]
R2	70.3	88.2	86.5	71.1	63.4	23.2
R3	68.3	83.1	80.9	69.1	61.4	19.6

[1] Receiver locations from the construction noise analysis which are closest to the Planning Area 1 construction activities.
[2] Ambient noise level measurements taken on 3/13/14 at the receiver locations during the Ontario industrial project noise study.
[3] Estimated construction noise levels based on the RCNM peak construction noise analysis methodology. These conditions are not likely to occur as the RCNM assumes all equipment is operating simultaneously at a single point at the project site boundary.
[4] Modeled RCNM construction noise levels at each receiver location based on the observed distance to the nearest construction equipment activity during the noise level measurements, shown on Table 3.
[5] Measured noise levels at the receiver locations during one hour of typical grading activities in the center of the construction site.
[6] Project only construction noise levels calculated based on the logarithmic noise level difference between the measured noise levels during grading activity and the ambient without project noise levels measured at each receiver location.
[7] Difference between the peak RCNM modeled noise levels and the typical noise levels measured at the receiver locations during typical grading activities.

Similarly, the Day 2 short-term construction noise level measurements are shown on Table 5 in relation to the RCNM modeled noise levels. Table 5 shows the project-only construction noise levels ranged from 64.1 to 65.3 dBA Leq, and are significantly lower than those modeled with the RCNM at the same receiver locations. Based on the Day 2 analysis, the differences between the peak RCNM model and typical measured construction noise levels range from 16.8 to 21.2 dBA Leq. This Day 2 analysis is consistent with the Day 1 typical grading construction noise level measurements taken a week later at the same receiver locations.

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TABLE 5: DAY 2 CONSTRUCTION NOISE LEVEL COMPARISON

Original Noise Study			Calibration			
Receiver Location[1]	Measured Daytime Ambient Noise Levels (dBA Leq)[2]	Peak Modeled RCNM Grading Construction Noise Levels (dBA Leq)[3]	Calculated RCNM Noise Levels to Closest Observed Equipment (dBA Leq)[4]	Measured Typical Grading Construction Noise Levels at Receivers (dBA Leq)[5]	Calculated Project-Only Construction Noise Levels (dBA Leq)[6]	Difference Between Modeled & Measured Noise Levels (dBA Leq)[7]
R2	70.3	88.2	86.5	71.5	65.3	21.2
R3	68.3	83.1	80.9	69.7	64.1	16.8

[1] Receiver locations from the construction noise analysis which are closest to the Planning Area 1 construction activities.
[2] Ambient noise level measurements taken on 3/13/14 at the receiver locations during the Ontario industrial project noise study.
[3] Estimated construction noise levels based on the RCNM peak construction noise analysis methodology. These conditions are not likely to occur as the RCNM assumes all equipment is operating simultaneously at a single point at the project site boundary.
[4] Modeled RCNM construction noise levels at each receiver location based on the observed distance to the nearest construction equipment activity during the noise level measurements, shown on Table 3.
[5] Measured noise levels at the receiver locations during one hour of typical grading activities in the center of the construction site.
[6] Project only construction noise levels calculated based on the logarithmic noise level difference between the measured noise levels during grading activity and the ambient without project noise levels measured at each receiver location.
[7] Difference between the peak RCNM modeled noise levels and the typical noise levels measured at the receiver locations during typical grading activities.

CONCLUSIONS

The sample reference noise level measurements were taken by Urban Crossroads, Inc. in order to better describe the noise levels from various typical construction activities at different land use types. To quantify the difference between the modeled RCNM and measured construction noise levels in the field, Urban Crossroads, Inc. compared the modeled results of a RCNM construction noise level analysis with the actual measured noise levels observed in the field during typical grading activities at the same project site. While the RCNM equipment database and methodology provides conservative, worst-case, construction noise levels for specific pieces of equipment, our field measurements show how the RCNM methodology overstates the noise levels experienced at the nearby receiver locations during actual construction activities.

This analysis demonstrates how the RCNM overstates the potential construction noise level impacts by placing all equipment at a single point at the project site boundary. In reality based on our observations in the field, the grading equipment within the project site was observed to operate at different locations throughout the project site. In addition, the typical construction noise levels measured at the receiver locations reflect modern construction equipment noise level emissions that are largely overstated using the older RCNM reference noise levels. The reference noise level measurements presented in this memo are, therefore, representative of typical construction noise levels to accurately describe potential construction noise impacts at nearby receiver locations for a given project. This memo presents typical construction activity reference noise levels. Detailed site specific analysis is needed to assess potential

construction noise level impacts at nearby sensitive receiver locations on a project by project basis and to identify the appropriate mitigation measures as needed at future construction sites.

Prepared by:

URBAN CROSSROADS, INC.



Bill Lawson, P.E., INCE
Principal



Alex Wolfe
Assistant Analyst

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APPENDIX A

REFERENCE NOISE LEVEL MEASUREMENTS SUMMARY TABLE

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Appendix A

Construction Equipment Reference Noise Levels

ID	Reference Source	Type of Project (Land Use)	Typical Construction Stage(s)	Reference Measurement Duration (h:mm:ss)	Reference Distance From Source (Feet)	Reference Noise Levels		Reference Noise Levels @ 50 Feet	
						dBA Leq	dBA Lmax	dBA Leq	dBA Lmax
1	Truck Pass-Bys & Dozer Activity	Business Park	Grading	0:01:15	30'	63.6	68.1	59.2	63.7
2	Dozer Activity	Business Park	Grading	0:01:00	30'	68.6	76.4	64.2	72.0
3	Construction Vehicle Maintenance Activities	Residential	Grading	0:01:00	30'	71.9	74.8	67.5	70.4
4	Foundation Trenching	Residential	Trenching, Building Const.	0:01:01	30'	72.6	74.9	68.2	70.5
5	Rough Grading Activities	Residential	Grading	0:05:00	30'	77.9	84.8	73.5	80.4
6	Residential Framing	Residential	Building Const.	0:02:00	30'	66.7	76.7	62.3	72.3
7	Water Truck Pass-By & Backup Alarm	Industrial	Grading	0:00:45	30'	76.3	82.3	71.9	77.9
8	Dozer Pass-By	Industrial	Grading	0:00:32	30'	84.0	89.9	79.6	85.5
9	Two Scrapers & Water Truck Pass-By	Industrial	Grading	0:00:32	30'	83.4	89.0	79.0	84.6
10	Two Scrapers Pass-By	Industrial	Grading	0:00:30	30'	83.7	86.9	79.3	82.5
11	Scraper, Water Truck, & Dozer Activity	Industrial	Grading	0:30:00	30'	79.7	87.7	75.3	83.3
12	Concrete Mixer Truck Movements	Industrial	Building Const., Paving	0:01:00	50'	71.2	*73.1*	71.2	73.1
13	Concrete Paver Activities	Industrial	Building Const., Paving	0:01:00	30'	70.0	*75.7*	65.6	71.3
14	Concrete Mixer Pour & Paving Activities	Industrial	Building Const., Paving	0:01:00	30'	70.3	*76.3*	65.9	71.9
15	Concrete Mixer Backup Alarms & Air Brakes	Industrial	Building Const., Paving	0:00:20	50'	71.6	*78.8*	71.6	78.8
16	Concrete Mixer Pour Activities	Industrial	Building Const., Paving	1:00:00	50'	67.7	79.2	67.7	79.2

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APPENDIX B

REFERENCE NOISE SOURCE PHOTOS

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Construction Reference Noise Source Photos



1.1_TruckPass-By&DozerActivity
33, 39' 0.101600", 117, 43' 56.773600"



2.1_DozerActivity
33, 39' 0.101600", 117, 43' 56.773600"



3.1_ConstructionVehicleMaintenance
33, 31' 16.600000", 117, 36' 58.060000"



4.1_FoundationTrenching
33, 32' 8.530000", 117, 35' 55.490000"



4.2_FoundationTrenching
33, 32' 8.540000", 117, 35' 55.710000"



5.1_RoughGradingActivities
33, 31' 16.710000", 117, 37' 0.530000"

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Construction Reference Noise Source Photos



5.2_RoughGradingActivities
33, 31' 16.600000", 117, 37' 0.450000"



5.3_RoughGradingActivities
33, 31' 16.570000", 117, 37' 0.450000"



5.4_RoughGradingActivities
33, 31' 16.660000", 117, 37' 0.310000"



6.1_ResidentialFraming
33, 32' 15.610000", 117, 36' 2.740000"



7.1_WaterTruckPassBy&BackupAlarm
34, 4' 19.318500", 117, 36' 25.015800"



8.1_DozerPass-By
34, 4' 19.373400", 117, 36' 24.988400"

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Construction Reference Noise Source Photos



9.1_TwoScrapers&WaterTruckPass-By
34, 4' 19.332200", 117, 36' 24.988400"



10.1_TwoScrapersPass-By
34, 4' 19.373400", 117, 36' 25.070800"



10.2_TwoScrapersPass-By
34, 4' 19.373400", 117, 36' 25.070800"



11.1_Scraper,WaterTruck,&DozerActivity
34, 4' 19.373400", 117, 36' 25.070800"



11.2_Scraper,WaterTruck,&DozerActivity
34, 4' 19.318500", 117, 36' 25.125700"



11.3_Scraper,WaterTruck,&DozerActivity
34, 4' 19.346000", 117, 36' 25.043300"

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Construction Reference Noise Source Photos



11.4_Scraper,WaterTruck,&DozerActivity
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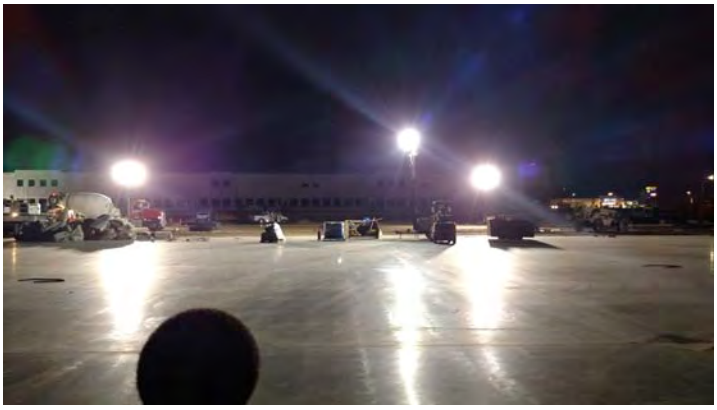


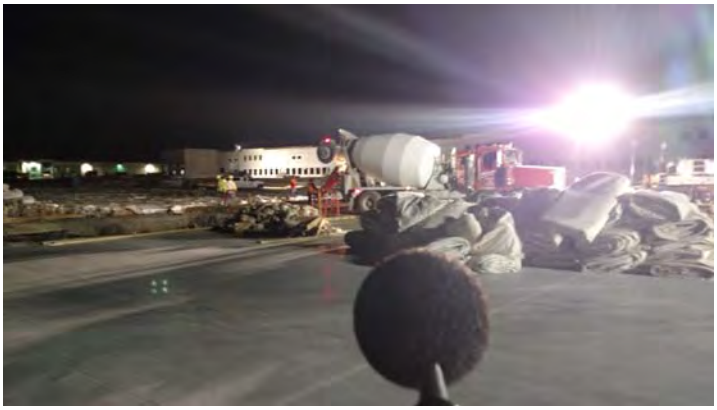
12.1_ConcreteMixerTruckMovements
34, 4' 43.200000", 117, 12' 25.779400"



13.1_ConcretePaverActivities
34, 4' 43.625700", 117, 12' 25.312500"



14.1_ConcreteMixerPour&PavingActivities
34, 4' 42.746800", 117, 12' 24.955400"



15.1_ConcreteMixerBackupAlarms&AirBrakes
34, 4' 43.666900", 117, 12' 24.763100"



16.1_ConcreteMixerPourActivities
34, 4' 43.158800", 117, 12' 25.944200"

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APPENDIX C

SHORT-TERM MEASUREMENTS & CONSTRUCTION ACTIVITY PHOTOS

Attachment: Appendix E - Noise Impact Analysis [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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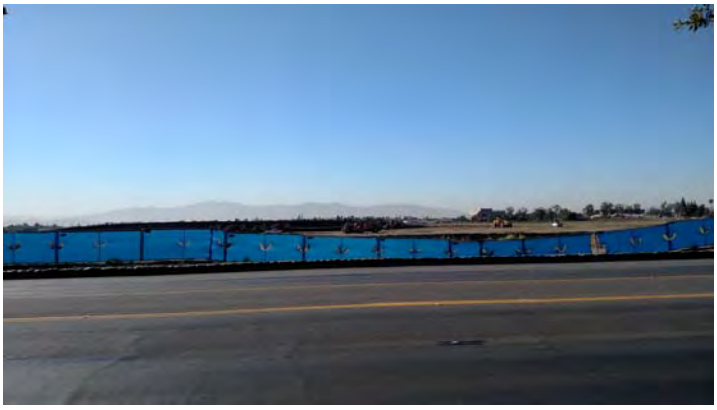
Short-Term Measurements & Construction Activities



ConstructionSite_1
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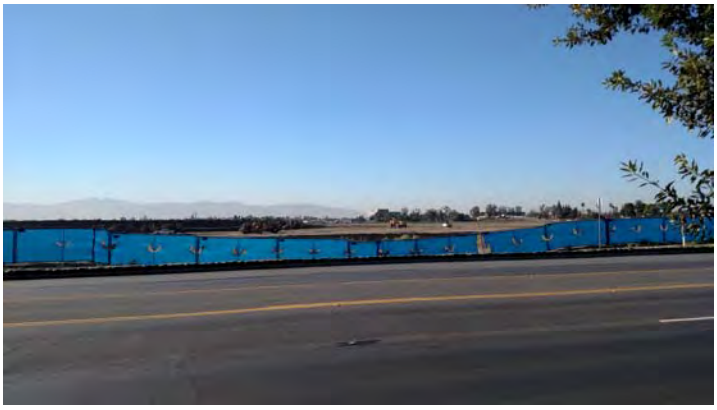


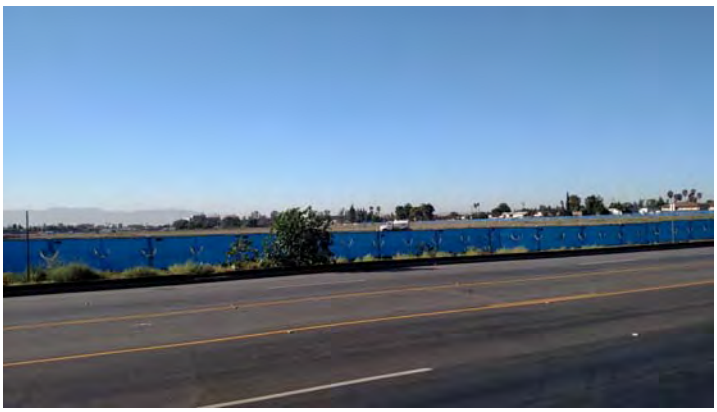
ConstructionSite_2
34, 4' 39.808000", 117, 36' 22.955900"



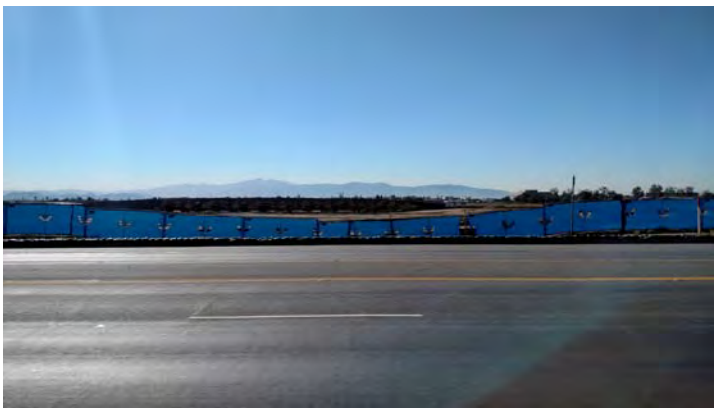
ConstructionSite_3
34, 4' 39.533300", 117, 36' 23.312900"



ConstructionSite_4
34, 4' 39.533300", 117, 36' 23.312900"



ConstructionSite_5
34, 4' 39.341100", 117, 36' 28.064500"



ConstructionSite_6
34, 4' 39.684400", 117, 36' 23.477700"

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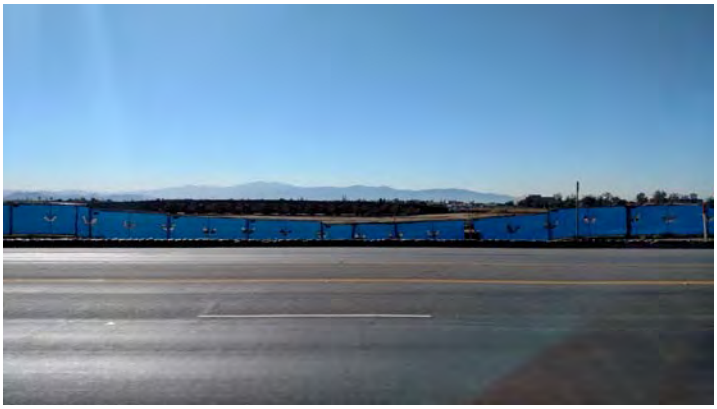
Short-Term Measurements & Construction Activities



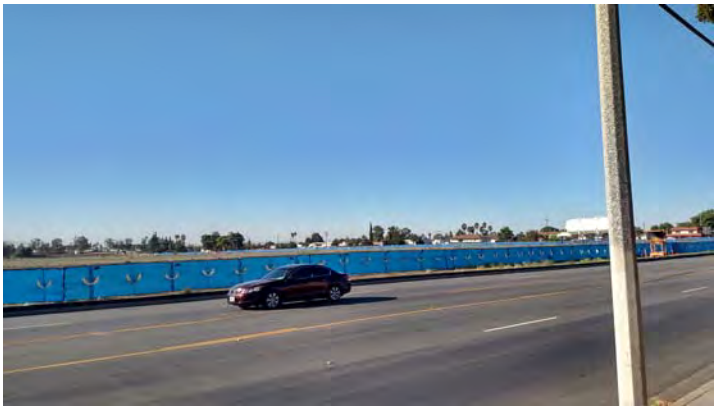
ConstructionSite_7
34, 4' 39.684400", 117, 36' 23.477700"



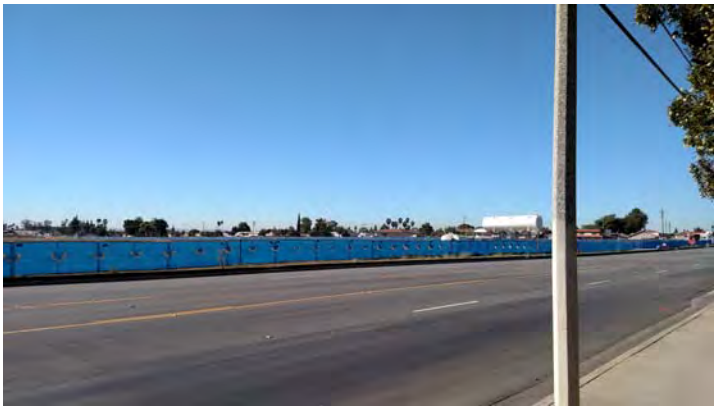
R2
34, 4' 39.341100", 117, 36' 28.064500"



R2_South
34, 4' 39.217500", 117, 36' 29.108200"



R2_Southwest
34, 4' 39.217500", 117, 36' 29.108200"



R2_Southwest2
34, 4' 39.505900", 117, 36' 28.970900"



R2_West
34, 4' 39.217500", 117, 36' 29.108200"

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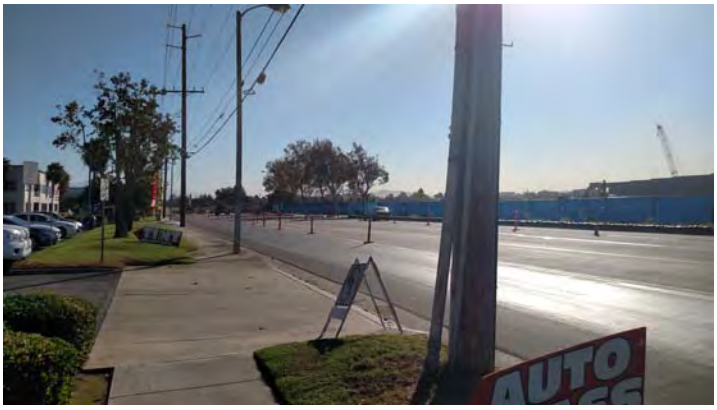
Short-Term Measurements & Construction Activities



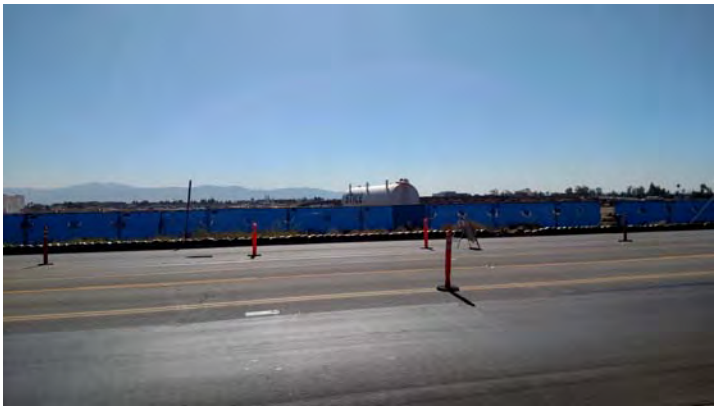
R3
34, 4' 39.972800", 117, 36' 16.803500"



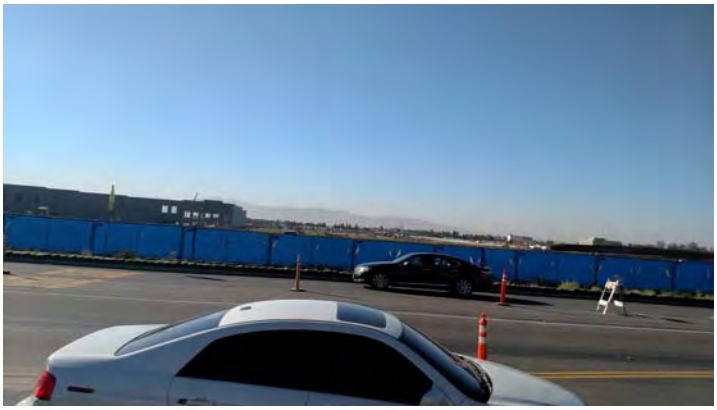
R3_E
34, 4' 39.972800", 117, 36' 16.803500"



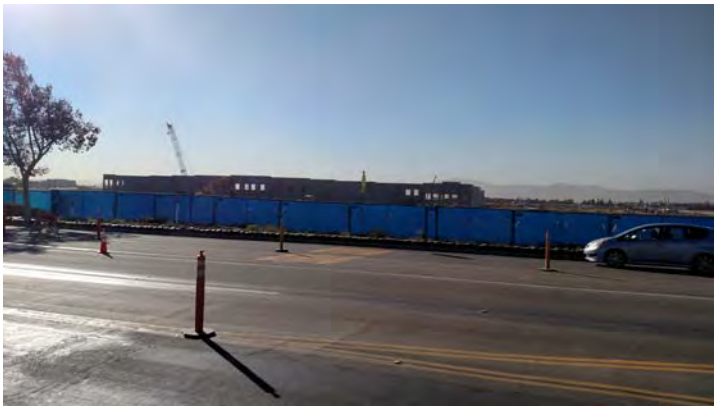
R3_South
34, 4' 39.972800", 117, 36' 16.803500"



R3_South2
34, 4' 39.519600", 117, 36' 17.050700"



R3_South3
34, 4' 39.698100", 117, 36' 14.221800"



R3_Southeast
34, 4' 39.698100", 117, 36' 14.221800"

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R3_Southwest
34, 4' 39.972800", 117, 36' 16.803500"

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ARDENT
ENVIRONMENTAL GROUP, INC.

Phase I Environmental Site Assessment

17845 Indian Street
Moreno Valley, California

Prepared for:
SRG Acquisition, LLC
18802 Bardeen Avenue
Irvine, California 92612

Prepared by:
Ardent Environmental Group, Inc.
1827 Capital Street, Suite 103
Corona, California 92880

July 15, 2015
Project No. 100671001

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

ARDENT
ENVIRONMENTAL GROUP, INC.

July 15, 2015
Project No. 100671001

Ms. Monica Esteves
SRG Acquisition, LLC
18802 Bardeen Avenue
Irvine, California 92612

Subject: Phase I Environmental Site Assessment
17845 Indian Street
Moreno Valley, California

Dear Ms. Estevez:

Ardent Environmental Group, Inc. (Ardent) has performed a Phase I Environmental Site Assessment of a property located at 17845 Indian Street in the city of Moreno Valley, California (site). Work was completed in general accordance with Ardent's proposal dated July 6, 2015. The attached report presents our methodology, findings, opinions, and conclusions regarding the environmental conditions at the site. We appreciate the opportunity to be of service to you on this project. If there are any questions, please feel free to call the undersigned at your convenience.

Sincerely,
Ardent Environmental Group, Inc.

Dennis Kawasaki
Project Scientist

Paul A. Roberts, P.G.
Principal Geologist

PAR/DTK/nw

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EXECUTIVE SUMMARY

Ardent Environmental Group, Inc. (Ardent) was retained by SRG Acquisitions, LLC (SRG) to perform a Phase I Environmental Site Assessment (ESA) of the property located at 17845 Indian Street in the city of Moreno Valley, California (site). The site consists of four contiguous rectangular parcels which are currently vacant. It is our understanding that SRG is considering acquiring the site for redevelopment as commercial use. Site assessment activities for this report were conducted between July 6, 2015 and July 15, 2015.

In summary, the following items were noted:

- The site is comprised of four contiguous rectangular parcels totaling approximately 19.42-acres. At the time of the site reconnaissance, the site was a vacant dirt lot with no occupants.

- The site was vacant land from at least 1938 through the 1960s with possible agricultural usage during the 1930's. From 1978 to 2008, the southeastern parcel was occupied by a single-family residence. A prior Phase I ESA reported that the southwestern and two northern parcels were used as a sod farm in 2004. The southeastern parcel was briefly used to store truck trailers during the mid-2000's.The residential building demolition in 2008 included the removal of a septic tank. From 2008 to present-day, the site has remained a vacant lot.

- Groundwater beneath the site is estimated to be 50 feet bgs in the shallow zone and 70 feet in the deeper zone with a southeasterly flow direction.

- A previous Phase I indicated that pesticides and herbicides were used at the former sod farm. As a result, residual concentrations of herbicides and pesticides may exist in the shallow soil. However, future grading activities will likely homogenize and dilute any residual agricultural chemicals which may be remaining on the site. The residual agricultural chemicals would not be considered an environmental concern.

- A number of releases have been discovered throughout March Air Reserve Base (March ARB) since the late-1980s. March ARB is listed on a number of regulatory databases, including the National Priority List (NPL), or Superfund. Groundwater in the vicinity of the base has been impacted with a number of chemicals including volatile organic compounds (VOCs), namely trichloroethylene (TCE), tetrachloroethylene (PCE) and carbon tetrachloride (CTCL). The closest plume of VOC-contaminated groundwater is within the "lower alluvial" located approximately 1,200 feet north of the site. Groundwater monitoring wells 5MW33 and 5MW34 are located approximately 600 feet south of the site, between the source area and the site. Laboratory results of groundwater samples collected from these wells have indicated trace concentrations of TCE in well 5MW33. The detected concentration of TCE is below the California State Water Resources Control Board Maximum Contaminant Level for state drinking water (MCL). Based on this information, trace concentrations of TCE from the off-site March ARB property are likely present in the groundwater beneath the site. However, these concentrations are below the MCLs and are not likely to be an environmental concern to the site. Based on the historical land uses at the site, there is a low likelihood that former occupants have contributed to the groundwater issues.

- There are no structures at the site, therefore, friable ACMs and LBPs are not likely present. However, there is a potential for the presence of transite piping as a result of historical agricultural usage. If encountered, transite pipes should be removed by a licensed asbestos abatement contractor prior to or during redevelopment activities.

- No other on- or off-site environmental concerns were noted.

Ardent has performed this Phase I ESA in general conformance with the scope and limitations of the ASTM Practice E1527-13, ASTM Practice E2600-10, and the EPA Standards and Practices for AAI, Final Rule (40 CFR, Part 312), for the property located at 17845 Indian Street in the city of Moreno Valley, California. Any limitations or exceptions encountered during completion of this report are stated in Section 1.4. No evidence or indication of RECs, or conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the site has been revealed. Based on the findings of this report, Ardent has no further recommendations for additional investigations.

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1 INTRODUCTION

Ardent Environmental Group, Inc. (Ardent) was retained by SRG Acquisitions, LLC (SRG) to perform a Phase I Environmental Site Assessment (ESA) for a the property located at 17845 Indian Street in the city of Moreno Valley, California (site; Figure 1). Work was conducted in accordance with Ardent's proposal dated July 6, 2015. The site consists of four contiguous rectangular parcels which are currently vacant. It is our understanding that SRG is considering acquiring the site for redevelopment as commercial use. The following sections identify the purpose, the involved parties, the scope of work, and the limitations and exceptions associated with the Phase I ESA.

1.1 Purpose of Phase I ESA

In accordance with the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Standard E1527-13), the objective of the Phase I ESA was to identify, to the extent feasible pursuant to ASTM Standard E1527-13, recognized environmental conditions (RECs), which are defined by ASTM as "…the presence or likely presence of any hazardous substance or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

The United States Environmental Protection Agency ("USEPA" or "EPA") has stated that ASTM Standard E1527-13, is consistent with the Standards and Practices for All Appropriate Inquires (AAI), Final Rule (40 Code of Federal Regulations [CFR], Part 312) and is compliant with the statutory criteria for all appropriate inquires. All appropriate inquires, as defined in the AAI Final Rule, must be conducted by persons seeking the landowner liability protections under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) prior to acquiring a property or seeking or receiving federal Brownfields grants under the authorities of CERCLA. The purpose of AAI, as defined in the AAI Final Rule, was to identify releases and threatened releases of hazardous substances which cause or threaten to cause the incurrence of response costs.

As part of this Phase I ESA, Ardent also assessed whether a vapor encroachment condition (VEC) exists at the site. The VEC assessment was completed following the ASTM E2600-10 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate

Transactions (ASTM Standard E2600-10). The objective of this work was to evaluate whether possible contaminants (e.g. volatile organic compounds [VOCs]) are present in soil and/or groundwater in the site vicinity which might pose a possible vapor intrusion into existing or future buildings at the site.

1.2 Involved Parties

Mr. Dennis Kawasaki of Ardent conducted the historical research, site reconnaissance, regulatory inquiries, and document review. Mr. Paul Roberts completed oversight and management. Both Mr. Roberts and Mr. Kawasaki meet the definition of an environmental professional as set forth in the AAI Final Rule.

1.3 Scope of Work

Ardent's scope of work for this Phase I ESA is consistent with ASTM Standard E1527-13 and included the activities listed below.

- **Review of User Provided Information** – Review of information regarding title and judicial records for environmental liens or activity and use limitations, recorded environmental liens, actual or specialized knowledge or commonly known information regarding environmental conditions at the site, the relationship of the purchase price of the property to the fair market value, readily available maps, environmental reports, and other environmental documents pertaining to the site, as available and obtained from the user/client.

- **Records Review** – Acquisition and review of records, including federal, state, tribal, and local regulatory agency databases, for the site and for properties located within a specified radius of the site; local regulatory agency files for the site and selected nearby properties of potential environmental concern; physical setting sources, including topographic maps, geologic maps, and geologic and hydrogeologic reference documents; and historic land use information including aerial photographs, historical fire insurance rate maps, building department records, and city directories, as necessary, that are reasonably ascertainable, publicly available, can be obtained within reasonable time and cost, and are practically reviewable.

- **Vapor Encroachment Condition (VEC)** – Review available regulatory and client provided data to assess Tier 1 non-numeric screening for the site. Ardent evaluated whether contaminants were present in soil and/or groundwater in the site vicinity which might pose a VEC at the site.

- **Site Reconnaissance** – Performance of a site reconnaissance to visually observe the site and any structure(s) located on the site to the extent not obstructed by bodies of water, adjacent buildings, or other obstacles. The purpose of the site reconnaissance is to obtain

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information indicating the likelihood of identifying RECs in connection with the site, including the general site setting, site usage, use and storage of hazardous materials and petroleum products, disposal of waste products and materials, sources of polychlorinated biphenyls (PCBs), and evidence of releases and possible risks of contamination from activities at adjacent properties.

- **Interviews** – Interviews with site representatives, including owners, occupants, and site managers, regarding the environmental condition of the site to the extent necessary and such persons are available. Interviews with state and/or local government officials as necessary.

- **Report** – Evaluation of the information and data obtained by the Phase I ESA process outlined above and preparation of this Phase I ESA report documenting findings and providing opinions and conclusions regarding possible environmental impacts and RECs at the site.

1.4 Limitations and Exceptions

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ardent should be contacted if the reader requires any additional information or has questions regarding the content, interpretations presented, or completeness of this document.

The findings, opinions, and conclusions are based on an analysis of the observed site conditions and the referenced literature. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the site or nearby properties. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ardent has no control. Ardent cannot warrant or guarantee that not finding indicators of any particular hazardous material means that this particular hazardous material or any other hazardous materials do not exist on the site. Additional research, including invasive testing, can reduce the uncertainty, but no techniques now commonly employed can eliminate the uncertainty altogether.

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1.5 Special Terms and Conditions

As indicated in Section 13.1.5 of ASTM Standard E1527-13, the following, which is not intended to be all inclusive, represents out-of-scope items with respect to a Phase I ESA: asbestos-containing building materials (ACMs), radon, lead-based paint (LBP), lead in drinking water, wetlands, regulatory compliance, cultural and historic risk, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality unrelated to releases of hazardous substances or petroleum products into the environment, biological agents, and mold. As part of our agreement with the client, Ardent visually assessed site buildings (if present) for possible ACMs, LBP, and mold. In addition, ASTM Standard E2600-10 supplements the ASTM Standard E1527-13 to include evaluation of VEC using Tier 1 screening.

This study did not include an evaluation of geotechnical conditions or potential geologic hazards. In addition, Ardent did not address interpretations of zoning regulations, building code requirements, or property title issues.

1.6 User Reliance

This report may be relied upon and is intended exclusively for use by the client, its partners, members, investors, affiliates, successors and assigns, and lenders. Any use or reuse of the findings, opinions, and/or conclusions of this report by parties other than the foregoing parties is undertaken at said parties' sole risk.

1.7 Physical Limitations

No physical limitations were encountered during the completion of this Phase I ESA report.

1.8 Data Gaps

No significant data gaps were noted during the preparation of this Phase I ESA report.

2 GENERAL SITE CHARACTERISTICS

The following sections describe the location and the current uses of the site and adjacent properties. A site location map is presented as Figure 1, and a site vicinity map is presented as Figure 2. Selected photographs of the site and surrounding properties are provided in Appendix A.

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2.1 Location and Legal Description

The site is comprised of four rectangular parcels totaling approximately 19.42-acres and located in the city of Moreno Valley, Riverside County, California (Figure 1). The site is bound to the east by Indian Street, to the south by a commercial warehouse building, and to the west and north by vacant land (Figure 2). The southeastern parcel has been assigned the address of 17845 Indian Street as a result of a former residence. The Assessor's Parcel Numbers (APN) assigned to the site are 316-210-019-5, 319-210-020-5, 316-210-057-9 and 316-210-077-7. Site boundary information was obtained during the site reconnaissance and from information provided by the client.

2.2 Site Description and Current Site Uses/Operations

The following paragraphs present a description of the structures present at the site, the tenants currently occupying the site, the activities being conducted on-site, the heating and cooling systems utilized in the site building, the sewage disposal system, and the potable water provider for the site, if any.

2.2.1 Site Description

The site is comprised of four contiguous rectangular parcels totaling approximately 19.42-acres. At the time of the site reconnaissance, the site was a vacant dirt lot.

2.2.2 Occupants

The site is currently unoccupied.

2.2.3 Heating and Cooling Systems

Heating/cooling systems are not present at the site.

2.2.4 Sewage Disposal/Septic Systems

Since there are no structures on site, sewage disposal is not present. Future sewage disposal will likely be connected to the local municipal wastewater system. According to building records, a residence at the property (formerly located on the southeastern parcel) was connected to a septic system. This septic system was removed when the residence was demolished in 2008.

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2.2.5 Potable Water

Potable water is currently not provided to the site. Potable water for future developments will likely be provided to the site by the local water purveyor.

2.3 Adjacent Properties

In general, the site vicinity consists of commercial warehouse and distribution facilities and vacant land (Figure 2). The site is bound to the south by iHerb, Inc., a warehouse and distribution facility of nutritional supplements and other health products. Adjoining west of the site is vacant land. Adjoining north and east (across Indian Street) are vacant land with signage indicating future development of these properties as commercial warehouse and distribution facilities.

No evidence of aboveground storage tanks (ASTs) or underground storage tanks (USTs) or other possible hazardous materials or wastes were noted were noted being stored by adjacent facilities along the site property line. These adjacent facilities would not be considered an environmental concern to the site.

The March Air Reserve Base (ARB) is located approximately 0.3 mile northwest and upgradient of the site. Releases of VOCs from the March ARB have impacted groundwater in the site vicinity. Based on a review of the most recent groundwater monitoring report available for review on the State Water Resources Control Board (SWRCB) GeoTracker website, trace concentrations of VOCs may be present in the groundwater beneath the site. However, these trace concentrations are reported to be below the California State Water Resources Control Board Maximum Contaminant Levels for state drinking water (MCLs) and therefore a low likelihood to be an environmental concern to the site. The groundwater investigation at the March ARB is further discussed below in Section 4.4.2.

3 USER PROVIDED INFORMATION

The following sections summarize information provided by the user to assist Ardent in identifying the possibility of RECs in connection with the site, and to fulfill the user's responsibilities in accordance with Section 6 of ASTM Standard E1527-13. A copy of the user questionnaire as completed by Ms. Monica Estevez of SRG is presented in Appendix B.

3.1 Current Title Information

A Preliminary Title Report for the site provided by the client was reviewed by Ardent. The title report, prepared by First American Title Company, was dated May 24, 2015. According to the Preliminary Title Report, the current owner of the site is "Vogel Properties, Inc., a California corporation." A copy of the Preliminary Title Report is provided in Appendix C.

3.2 Environmental Liens or Activity and Use Limitations

Based on our review of available documentation, no records of environmental liens or activity and use limitations (AULs) were noted associated with the site. In addition, Ms. Estevez was not aware of any environmental liens or AULs against the site that are filed or recorded under federal, state, or local law.

3.3 Specialized Knowledge

Ms. Estevez indicated that SRG is the owner of the vacant property adjoining east of the site. This property is currently being developed with a commercial warehouse distribution building. Ms. Estevez did not indicate additional specialized knowledge or experience pertaining to the site or the adjacent properties that is material to RECs in connection with the site.

3.4 Commonly Known or Reasonably Ascertainable Information

Ms. Estevez is not aware of commonly known or reasonably ascertainable information regarding environmental issues pertaining to the site.

3.5 Valuation Reduction for Environmental Issues

In a transaction involving the purchase of a parcel of commercial real estate, the user shall consider the relationship of the purchase price of the property to fair market value of the property if the property was not affected by hazardous substances or petroleum products. Ms. Estevez indicated the purchase price reflects fair market value.

3.6 Reason for Performing Phase I ESA

Ardent was retained to perform this Phase I ESA as part of an acquisition of the site.

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3.7 Other User Provided Information

The client provided a copy of a previous Phase I ESA report associated with the site. The report is summarized below. A copy of this report is provided in Appendix D.

CENTEC Engineering, Inc., Phase I Environmental Site Assessment of 17845 Indian Street, Moreno Valley, California 92551, dated March 4, 2011. CENTEC Engineering, Inc. (CENTEC) performed a Phase I ESA of the site in 2011. According to CENTEC, the site consisted of four vacant parcels totaling approximately 19.42 acres. CENTEC reported that the southeastern parcel was developed with a single-family residential and several out-buildings sometime between 1967 and 1978. These structures were reportedly demolished in 2008 and included the removal of a septic system. CENTEC reported that the southwestern and two northern parcels were occupied by sod farms during the completion of a previous Phase I ESA in 2004. According to CENTEC, herbicides, fungicides and fertilizers were used at the site by the sod farms. CENTEC did not consider the normal usage of these materials as an environmental concern. CENTEC reported that adjoining properties included vacant land to the east and west and a commercial warehouse building adjoining south of the site. Adjoining north was a storage facility for modular buildings, trucks and trailers and a single-family residential home with serval out-buildings. CENTEC reported that groundwater beneath the site may be impacted as a result of a release from the nearby March ARB. CENTEC indicated that the historical site activities would not implicate it with the groundwater contamination caused by March ARB. Based on the results of this assessment, CENTEC did not identify RECS or recommend any further investigation.

4 PHYSICAL SETTING

The following sections include discussions of topographic, geologic, and hydrogeologic conditions in the vicinity of the site, based upon our document review and our visual reconnaissance of the site and adjacent areas.

4.1 Site Topography

Based on the review of the United States Geological Survey (USGS) 7.5 Minute Series, Perris, California, Topographic Quadrangle Map dated 1979, the site has an approximate elevation of 1,468 feet above mean sea level (msl) and slopes to the southeast.

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4.2 Geology

The site is located in the eastern portion of the Peninsular Ranges geomorphic province of southern California. This geomorphic province varies in width from 30 to 100 miles and extends 125 miles, from the Transverse Ranges and the Los Angeles Basin south into Baja Mexico. In general, the province consists of rugged mountains underlain by Mesozoic-age igneous and metamorphic rocks to the east and a dissected coastal plain underlain by Cretaceous- and Tertiary-age sediments to the west.

The site is located in the city of Moreno Valley which lies on granitic bedrock known as the Perris Block. Materials in the valley are characterized by Pliocene to Pleistocene alluvium ranging in thickness from 200 to 2,000 feet. This alluvium sits atop the Perris Block.

4.3 Oil and Gas Maps

Based on a review of the Division of Oil, Gas, and Geothermal Resources (DOGGR) online well finder the site does not lie adjacent to or in an active oil field and no oil wells have been drilled on the site or in the immediate site vicinity.

4.4 Site Hydrology

The following sections discuss the site hydrology in terms of both surface waters and groundwater.

4.4.1 Surface Waters

No natural surface water bodies, including ponds, streams, or other bodies of water are present on or adjacent to the site.

4.4.2 Groundwater

Groundwater information (such as depth and direction of flow) was not available for the site in regulatory agency files. To obtain additional information, Ardent reviewed the SWRCB GeoTracker website for groundwater information on properties in the site vicinity. Information from groundwater wells associated with the March ARB investigation was reviewed. The closest groundwater monitoring wells (5MW33 and 5MW34) are located approximately 600 feet south of the site (Figure 3). These wells are reportedly screened in the “lower alluvial” with a depth to water groundwater of

approximately 68 to 72 feet below ground surface (bgs). A shallower "upper alluvial" groundwater zone is reported to exist at approximately 10 to 20 feet above the lower zone. Based on this information, groundwater beneath the site is estimated to be 50 feet bgs in the shallow zone and 70 feet in the deeper zone with a southeasterly flow direction.

A number of releases have been discovered throughout March ARB since the late-1980s. March ARB is listed on a number of regulatory databases, including the National Priority List (NPL), or Superfund. Groundwater in the vicinity of the base has been impacted with a number of chemicals including VOCs, namely trichloroethylene (TCE), tetrachloroethylene (PCE) and carbon tetrachloride (CTCL). The closest plume of VOC-contaminated groundwater is within a deeper aquifer known as the "lower alluvial" located approximately 1,200 feet north of the site (Figure 3). Groundwater monitoring wells 5MW33 and 5MW34 are located approximately 600 feet south (downgradient) of the site (Figure 3). Laboratory results of groundwater samples collected from these wells have indicated trace concentrations of TCE in well 5MW33 (AECOM, 2013). The detected concentration of TCE is below the MCL. Based on this information, trace concentrations of TCE from the off-site March ARB property are likely present in the groundwater beneath the site. However, these concentrations are below the MCL and are not likely to be an environmental concern to the site. Based on the historical land uses at the site, there is a low likelihood that former occupants have contributed to the groundwater issues.

5 HISTORICAL LAND USE

Ardent conducted a historical land use record search for both the site and surrounding areas. This included a review of one or more of the following sources that were found to be both reasonably ascertainable and useful for the purposes of this Phase I ESA: historical aerial photographs, historical fire insurance maps, historical city directories, building permits and plans, topographic maps, property tax records, zoning/land use records, and a review of prior environmental assessment reports regarding the site. Copies of historical data are provided in Appendix C.

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5.1 Summary of Historical Land Use of the Property

The site was vacant land from at least 1938 through the 1960s with possible agricultural usage during the 1930's. From at least 1978 to 2008, the southeastern parcel was occupied by a single-family residence. A prior Phase I ESA reported that the southwestern and two northern parcels were used as a sod farm in 2004. The southeastern parcel was briefly used to store truck trailers during the mid-2000's.The residential building demolition in 2008 included the removal of a septic tank. From 2008 to present-day, the site has remained a vacant lot.

5.2 Summary of Historical Land Use of Adjoining Properties

The site vicinity was largely used for agricultural purposes or vacant land from at least 1938 through the mid-1980's. Scattered single-family residential buildings were constructed in the site vicinity during the late-1970's to mid-1980's. From the early-2000's to at least 2012, the property adjoining north was used to store modular homes, trucks and trailers. This property was vacant land during the current site reconnaissance. The commercial warehouse building adjoining south of the site was constructed by 2006.

5.3 Fire Insurance Rate Maps

Historical Sanborn Fire Insurance Rate Maps (Sanborn maps) were requested from Environmental Data Resources Inc. (EDR) of Milford, Connecticut. According to EDR, there are no Sanborn maps available for the site.

5.4 Historical Aerial Photographs

Historical aerial photographs for selected years between 1938 and 2012 were provided by EDR. The following presents a summary of our review.

- **1938, 1953, 1961 and 1967 –** The site was vacant land. The site vicinity appeared to be used for agricultural purposes or vacant land. A water retention pond observed during the current site reconnaissance was first visible off-site near the northwestern corner of the site in the 1953 photo.

- **1978 and 1985** – By 1978, small single-family residence was visible on the southeastern parcel. A "pond" observed on-site during the current site reconnaissance was visible in the aerial photos adjoining west of the residence. By 1978, a single-family residence was constructed on the property adjoining north of the site, and by 1985 a single-family residence was constructed on the property adjoining south of the site.

- **1989, 1994, 2002, 2005, 2006, 2009, 2010 and 2012** – In the 2006 aerial photos, the site was used for storage of truck trailers. By 2009, the single-family residence was demolished. The prior Phase I ESA reported the use of the southwestern and two northern parcels as a sod farms. The presence of the sod farm usage were not obvious in the aerial photos. From 1989 to 2012, the property adjoining north appeared to be used as a storage yard for truck trailers. The prior Phase I ESA also reported the storage of modular homes at this property. The property adjoining north of the site was vacant land during the current site reconnaissance.

5.5 Building Permits

Building permits were reviewed at the City of Moreno Valley Building Department (MVBD) using the APNs associated with the site. The MVBD provided copies of a 2008 asbestos survey and demolition permit associated with the southeastern parcel. The asbestos survey was conducted prior to the demolition of the single-family residence. No asbestos was detected in the 14 samples collected. The building was demolished in July 2008 and included the removal of a septic system. The MVBD reported that there were no building records for the remaining parcels.

5.6 City Directories

City directories were obtained from EDR for the site and immediate site vicinity. Selected city directories between the years 1975 through 2011 were reviewed. Based on our review, listings pertaining to the site were occupants of the former residential building. Notable listings included the Waste Management Moreno Valley Transfer Station (17700 Indian Street) adjoining northeast of the site from 1999 to 2013.

5.7 Historical Topographic Maps

Historical topographic maps were provided by EDR for review. The maps were dated 1901, 1943, 1953, 1967, 1973, and 1979. The 1901 map was large scale and did not show site specific details. In the 1943, 1953, 1967 and 1973 maps, the site was shown as vacant land. A small structure representing the former single-family residence was indicated on the 1979 map. The March ARB was visible northwest of the site on the 1953, 1967, 1973 and 1979 maps.

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5.8 Interviews

Interviews were conducted by Ardent with key site personnel (e.g., past and present owners, operators, and/or occupants) with the objective of obtaining information indicating RECs in connection with the site. The following are the persons interviewed for purposes of this assessment.

5.8.1 Interview with Owner

The owner of the site was not available for an interview.

5.8.2 Interview with Site Manager

The site is vacant land, and therefore, no site managers were available.

5.8.3 Interviews with Occupant

The site is vacant land, and therefore, no occupants were available.

5.8.4 Interviews with Local Government Officials

Representatives of local regulatory agencies were interviewed during completion of this report. The information obtained is presented throughout this report.

5.8.5 Interviews with Others

The representative for the user of the Phase I ESA was interviewed via a questionnaire. The results of the questionnaire were previously discussed in Section 3.

5.9 Previous Reports and Documents

As discussed in Section 3.7, a previous Phase I ESA was provided to Ardent for review.

6 SITE RECONNAISSANCE

The site and site vicinity reconnaissance was performed by Ardent on July 8, 2015. The site reconnaissance involved a walking tour of the site and visual observations of adjoining properties. At the time of the site reconnaissance, there were no weather related obstructions, such as snow or ponded water which obscured a visual assessment of the site. Selected photographs taken during these activities are included in Appendix A. At the time of the reconnaissance, the site was vacant land.

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6.1 Use and Storage of Hazardous Substances and Petroleum Products

The use and storage of hazardous substances and petroleum products were not observed at the site or along the adjoining property boundaries.

6.2 Storage and Disposal of Hazardous Wastes

No storage or disposal of hazardous wastes was noted at the site or along the adjoining property boundaries.

6.3 Unidentified Substance Containers

No unidentified substance containers were observed on site during the site reconnaissance.

6.4 ASTs and Underground Storage Tanks (USTs)

No ASTs or evidence of USTs (i.e. fill ports, vent pipes, etc.) were noted at the site during the site reconnaissance.

6.5 Evidence of Releases

Evidence of chemical releases on the site, such as odors, stressed vegetation, stains, leaks, pools of liquids, and spills, was not observed during the site reconnaissance.

6.6 Polychlorinated Biphenyls (PCBs)

Historically, PCBs (a group of hazardous substances and suspected human carcinogens) were widely used as an additive in cooling oils for electrical components. Typical sources of PCBs can include electrical transformers. No electrical transformers were noted at the site or along the adjoining property boundaries.

6.7 Suspect Asbestos-Containing Building Materials (ACMs)

The manufacturing of most ACMs in the United States was phased out in the 1970s, ending in 1980. Previously manufactured ACMs that were in stock continued to be used through approximately 1981. Some non-friable ACMs are still manufactured (e.g. roofing mastics). In general, buildings constructed after 1981 have a negligible potential to contain friable ACMs and a low potential for most non-friable ACMs. Although there are currently no structures on

the site, there is a potential for the presence of transite piping as a result of historical agricultural usage. If encountered, transite pipes should be removed by a licensed asbestos abatement contractor prior to or during redevelopment activities.

6.8 Lead Based Paint (LBP)

The manufacture of LBP was phased out in approximately 1978. There are no buildings on the site and therefore, the presence of LBP is unlikely.

6.9 Indications of Water Damage or Mold Growth

No buildings are present on the site, therefore, no water damage or mold growth was observed.

6.10 Wastewater Systems

Wastewater systems were not observed during the site reconnaissance.

6.11 Stormwater Systems

A stormwater drain was noted near the southeast corner of the site.

6.12 Wells

No wells (e.g., groundwater monitoring wells, water supply wells) were noted at the site during the site reconnaissance.

6.13 Other Subsurface Structures

A “pond” was noted on the southeastern parcel. Based on historical aerial photos, this feature was associated with the former residence. A water retention pond was noted off-site along the northwestern corner of the site. No staining or unusual odors were noted from these features. No other subsurface structures (e.g., sumps, vaults, oil/water separators, and other surface impoundments) were noted during the site reconnaissance.

6.14 Other Issues

No other on- or off-site issues of environmental concern were noted.

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7 ENVIRONMENTAL DATABASE SEARCH

A computerized environmental information database search was performed by EDR for this Phase I ESA on July 7, 2015. The database search included federal, state, local, and tribal databases. A summary of the environmental databases searched, their corresponding search radii, and number of noted facilities of environmental concern is presented in Appendix E. In addition, a description of the assumptions and approach to the database search is provided in Appendix E. The review was conducted to evaluate whether the site or properties within the vicinity of the site have been reported as having experienced significant unauthorized releases of hazardous substances or other events with potentially adverse environmental effects.

No unmapped properties were identified in the database of this report. The following paragraphs describe the databases that contain noted properties of environmental concern, and include a discussion of the regulatory status of the facilities and potential environmental impact to the site.

7.1 Federal National Priorities List (NPL): Distance Searched – 1 mile

The NPL is the USEPA's database of uncontrolled or abandoned hazardous waste properties identified for priority remedial actions under the Superfund program. This database includes proposed NPL listings.

The site was not listed on this database. The March ARB, located 0.3 mile northwest and upgradient to the site, was listed on this database. As previously discussed in Section 4.4.2, trace concentrations of VOCs, namely TCE from the off-site March ARB property are likely present in the groundwater beneath the site. However, these concentrations are below the MCLs and are not likely to be an environmental concern to the site.

7.2 Federal Delisted NPL: Distance Searched – 0.5 mile

This database contains delisted NPL properties under the Superfund program. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the USEPA uses to delete properties from the NPL. In accordance with 40 Code of Federal Regulations (CFR) 300.425. (e), properties may be deleted from the NPL where no further response is appropriate.

Neither the site nor properties located within a 0.5-mile radius from the site were listed on this database.

7.3 Federal Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) List: Distance Searched – 0.5 mile

The CERCLIS database contains properties which are either proposed or on the NPL and properties which are in the screening and assessment phase for possible inclusion on the NPL. This database also includes properties listed as No Further Remedial Action Planned (NFRAP).

The site was not listed on this database. The March ARB was listed on this database. As discussed in Section 7.1, this facility would not be considered an environmental concern to the site.

7.4 Federal Corrective Action Report (CORRACTS): Distance Searched – 1 mile

The USEPA maintains this database of Resource Conservation and Recovery Act (RCRA) facilities that are undergoing corrective action. A corrective action order is issued when there has been a release of hazardous waste or constituents into the environment from a RCRA facility.

Neither the site nor properties within a 1-mile radius were listed on this database.

7.5 Federal Resource Conservation and Recovery Act (RCRA) Treatment, Storage, and Disposal (TSD) Facilities List: Distance Searched – 0.5 mile

The RCRA TSD database (non-CORRACTS) is a compilation by the EPA of facilities that report generation, storage, transportation, treatment, or disposal of hazardous waste.

Neither the site nor properties located within a 0.5-mile radius from the site were listed on this database.

7.6 Federal RCRA Generators List: Distance Searched – Site and Adjoining Properties

This list identifies sites that generate hazardous waste as defined by RCRA. Inclusion on this list is for permitting purposes and is not indicative of a release.

The site was not listed on this database. The Waste Management Moreno Valley Transfer Station located adjoining northeast of the site is listed as a small quantity generator. No violations are noted.

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7.7 Federal Institutional Control/Engineering Control Registries: Distance Searched – Site

These lists identify properties with engineering and/or institutional controls. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or affect human health. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on the site. Deed restrictions are generally required as part of the institutional controls.

The site was not listed on this database.

7.8 Federal Emergency Response Notification System (ERNS) List: Distance Searched – Site

The ERNS database, maintained by the USEPA, contains information on reported releases of oil and hazardous substances.

The site was not listed on this database.

7.9 Federal Brownfield List: Distance Searched – 0.5 mile

The USEPA Brownfield database, entitled Targeted Brownfield's Assessments (TBA), lists properties for which the USEPA is providing funding and/or technical support for environmental assessments and investigations. The objective of the TBA is to promote cleanup and redevelopment of undesirable properties with environmental issues.

Neither the site nor properties located within a 0.5-mile radius from the site were listed on this database.

7.10 State Calsites Database (Calsites) or State-Equivalent CERCLIS: Distance Searched – 1 mile

The Calsites database, also known as the State-equivalent CERCLIS, is maintained by the Cal-EPA DTSC. This database contains information on both known and potentially contaminated properties. Two-thirds of these properties have been classified, based on available information, as needing no further action (NFA) by the Department of Toxic Substances Control (DTSC). The remaining properties are in various stages of review and remediation to

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determine if a problem exists. These properties are presented by EDR on the EnviroStor databases.

The site was not listed on this database. No listings were found within a one-mile radius of the site. However, listings pertaining the releases from the March ARB were listed on this database. Potential groundwater impacts from the March ARB were previously discussed in Section 4.4.2.

7.11 State Solid Waste Landfill Sites (SWLF): Distance Searched – 0.5 mile

The SWLF database consists of open and closed solid waste disposal facilities and transfer stations. The data comes from the Integrated Waste Management Board's Solid Waste Information System (SWIS) and the SWRCB Waste Management Unit Database (WMUD) database.

The site was not listed on this database. The Waste Management Moreno Valley Transfer Station, adjoining northeast of the site is listed on this database. No violations were noted.

7.12 State Leaking Underground Storage Tank (LUST) Lists: Distance Searched – 0.5 mile

The LUST information system is obtained from by the SWRCB and the RWQCB (Regional Water Quality Control Board).

The site nor properties located within a 0.5-mile radius were listed on this database.

7.13 State Underground Storage Tank (UST) and Aboveground Storage Tank (AST) Registration List: Distance Searched – Site and Adjoining Properties

UST and AST databases are provided by the SWRCB. Inclusion on these lists is for permitting purposes and is not indicative of a release.

The site nor adjoining properties were listed on this database.

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7.14 State Voluntary Cleanup Programs (VCPs): Distance Searched – 0.5 mile

The State VCP database lists low threat level properties with either confirmed or unconfirmed releases. Project proponents have requested that the DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

The site nor properties located within a 0.5-mile radius were listed on this database.

7.15 Indian Reservations: Distance Searched – 1 mile

This list depicts Indian administered lands of the United States that have an area equal to or greater than 640-acres. No Indian Reservations were listed within a 1-mile radius from the site. Due to the lack of Indian Reservations within 1-mile of the site, other tribal database listings required by ASTM and AAI were deemed not applicable. These listings would include tribal-equivalent NPL, CERCLIS, Landfill and/or Solid Waste Disposal, LUST, UST and AST Registrations, Institutional Control/Engineering Control Registries, VCPs, and Brownfields.

7.16 Other Non-ASTM and AAI Database: Distance Searched – Site

Other databases were included in the EDR Report, but are not required by ASTM or AAI. Based on our review of these databases, the site was not listed.

8 VAPOR ENCROACHMENT CONDITION (VEC)

Ardent completed a VEC study for the site using Tier 1 criteria as recommended by ASTM E2600-10. The Tier 1 screening identifies surrounding facilities that pose a possible vapor intrusion source to the site based on the results of the Phase I ESA investigations and certain criteria outlined by ASTM. These criteria include a certain distance from the target site (referred to by ASTM as within the "area of concern"); the types of chemicals used (referred to by ASTM as the "chemicals of concern"); and a plume test to determine if the plume associated with a source of contamination is close enough to the site to impact indoor air quality. Based on our review of regulatory records, files, databases, client furnished data, and site reconnaissance activities, the site would be considered a "low risk" for vapor intrusion.

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9 REGULATORY RECORDS REVIEW

The Air Quality Management District (SCAQMD), RWQCB, Riverside County Department of Environmental Health (DEH), and DTSC are the lead regulatory agencies for permitting and regulating USTs, ASTs, LUST cases, and/or facilities that use, store, or generate hazardous waste or hazardous materials. Ardent used the known site address and APNs, in its search.

9.1 South Coast Air Quality Management District (SCAQMD)

Ardent reviewed the SCAQMD FIND website using the historical site address. According to the SCAQMD the site is not listed on this database.

9.2 Regional Water Quality Control Board, Riverside County (RWQCB)

Ardent searched the SWQCB GeoTracker website for possible files at the RWQCB regarding the site. According to GeoTracker, no files exist for the site.

Select reports for the March ARB were reviewed on GeoTracker and were discussed previously in Section 4.4.2.

9.3 Riverside County Department of Environmental Health (DEH)

Records regarding the site were requested from the Riverside County DEH using the address related to the former residence at the site. The Riverside County DEH indicates that records cannot be searched by APN. As of the date of this report, a response from the Riverside County DEH has not been received. Any records that may be found in the Riverside County DEH files are unlikely to alter the conclusions of this report.

9.4 Department of Toxic Substances Control (DTSC)

Ardent searched the DTSC Envirostor website for possible files regarding the site. According to Envirostor, no files exist for the site.

10 FINDINGS, OPINIONS AND CONCLUSIONS

Based upon the results of this Phase I ESA the following findings, opinions and conclusions are provided.

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10.1 Findings and Opinions

The following presents a summary of findings and opinions associated with this Phase I ESA performed for the site, including known or suspect RECs, controlled RECs, and de minimus environmental conditions (i.e., conditions that generally do not present a material risk of harm to public health or the environment).

- The site is comprised of four contiguous rectangular parcels totaling approximately 19.42-acres. At the time of the site reconnaissance, the site was a vacant dirt lot with no occupants.
- The site was vacant land from at least 1938 through the 1960s with possible agricultural usage during the 1930's. From 1978 to 2008, the southeastern parcel was occupied by a single-family residence. A prior Phase I ESA reported that the southwestern and two northern parcels were used as a sod farm in 2004. The southeastern parcel was briefly used to store truck trailers during the mid-2000's.The residential building demolition in 2008 included the removal of a septic tank. From 2008 to present-day, the site has remained a vacant lot.
- Groundwater beneath the site is estimated to be 50 feet bgs in the shallow zone and 70 feet in the deeper zone with a southeasterly flow direction.
- A previous Phase I indicated that pesticides and herbicides were used at the former sod farm. As a result, residual concentrations of herbicides and pesticides may exist in the shallow soil. However, future grading activities will likely homogenize and dilute any residual agricultural chemicals which may be remaining on the site. The residual agricultural chemicals would not be considered an environmental concern.
- A number of releases have been discovered throughout March ARB since the late-1980s. March ARB is listed on a number of regulatory databases, including the National Priority List (NPL), or Superfund. Groundwater in the vicinity of the base has been impacted with a number of chemicals including VOCs, namely TCE, PCE and carbon CTCL. The closest plume of VOC-contaminated groundwater is within the "lower alluvial" located approximately 1,200 feet north of the site. Groundwater monitoring wells 5MW33 and 5MW34 are located approximately 600 feet south (downgradient) of the site. Laboratory results of groundwater samples collected from these wells have indicated trace concentrations of TCE in well 5MW33. The detected concentration of TCE is below the MCL. Based on this information, trace concentrations of TCE from the off-site March ARB property are likely present in the groundwater beneath the site. However, these concentrations are below the MCLs and are not likely to be an environmental concern to the site. Based on the historical land uses at the site, there is a low likelihood that former occupants have contributed to the groundwater issues.
- There are no structures at the site, therefore, friable ACMs and LBPs are not likely present. However, there is a potential for the presence of transite piping as a result of historical agricultural usage. If encountered, transite pipes should be removed by a licensed asbestos abatement contractor prior to or during redevelopment activities.
- No other on- or off-site environmental concerns were noted.

10.2 Conclusions

Ardent has performed this Phase I ESA in general conformance with the scope and limitations of the ASTM Practice E1527-13, ASTM Practice E2600-10, and the EPA Standards and Practices for AAI, Final Rule (40 CFR, Part 312), for the property located at 17845 Indian Street in the city of Moreno Valley, California. Any limitations or exceptions encountered during completion of this report are stated in Section 1.4. No evidence or indication of RECs, or conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the site has been revealed.

11 RECOMMENDATIONS

Based on the findings of this report, Ardent has no further recommendations for additional investigations.

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12 SELECTED REFERENCES

AECOM Technical Services, Inc. (AECOM), 2013, Final 2011-2012 Annual Groundwater Monitoring Report, March Air Reserve Base and Former March Air Force Base, California: Report prepared for Air Force Civil Engineer Center, 2261 Hughes Avenue, Suite 155, Lackland Air Force Base, Texas 78236, dated December 9.

Environmental Database Research (EDR), 2015, Regulatory Database Report, dated July 7.

CENTEC Engineering, Inc. (CENTEC). 2011, Phase I Environmental Assessment of 17845 Indian Street, Moreno Valley, California: Report prepared for Vogel Properties, Inc., 300 Paseo Tesoro, Walnut, CA 91789, dated March 4.

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13 QUALIFICATIONS STATEMENT AND SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

Mr. Paul Roberts states that the Phase I ESA was performed under his direct supervision, and that he has reviewed and approved the report, and the methods and procedures employed in the development of the report conform to the minimum industry standards. Mr. Roberts certifies that Ardent project personnel and subcontractors are properly licensed and/or certified to do the work described herein.

Pursuant to Paragraph 12.13 of the ASTM Standard E1527-13:

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental professional* as defined in §312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Paul Roberts, P.G.
Principal Geologist

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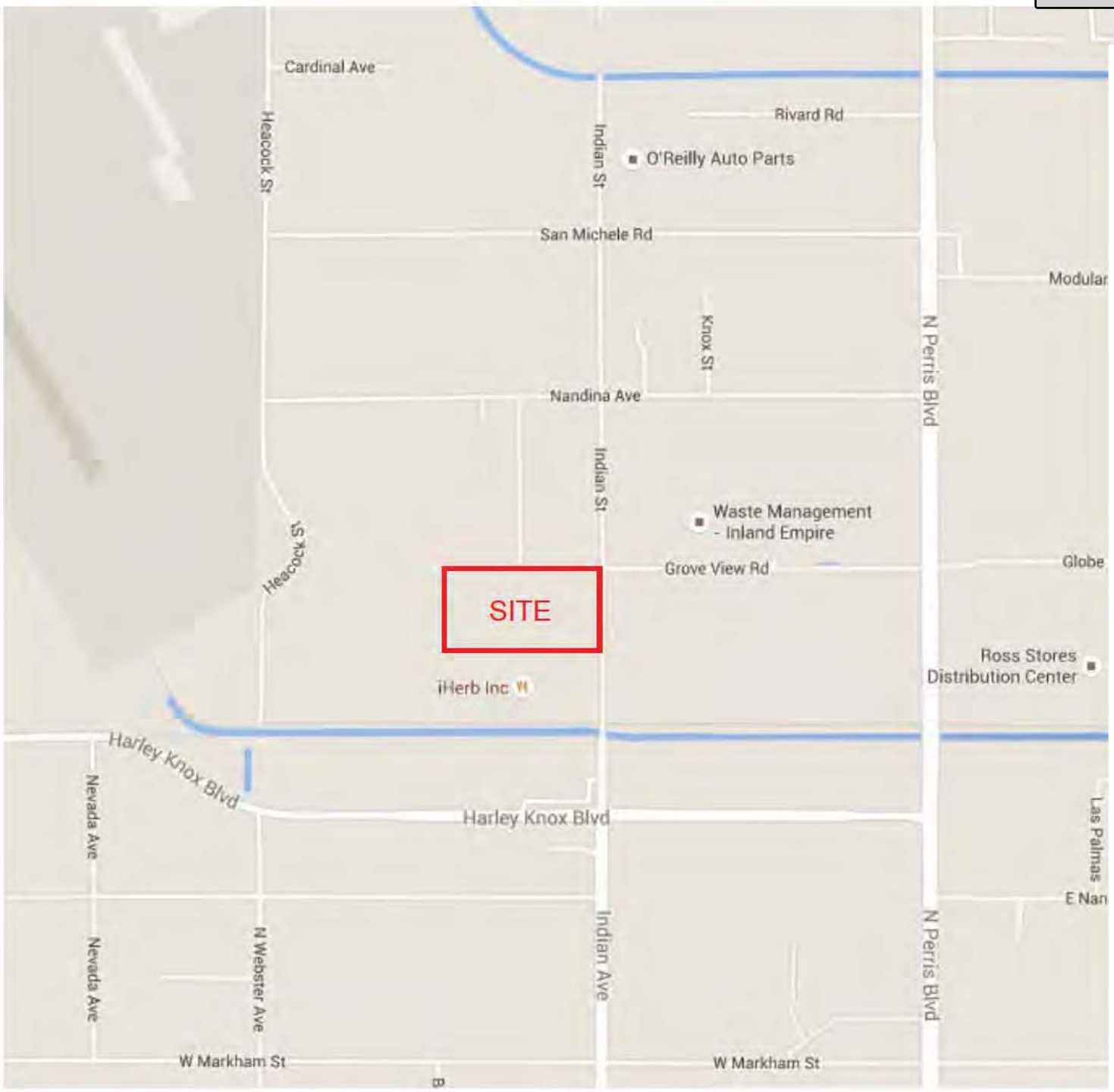

NO SCALE

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

ARDENT ENVIRONMENTAL GROUP, INC.	PROJECT NO. 100671001	**SITE LOCATION MAP**	FIGURE 1
	DATE 07/15	17845 INDIAN STREET MORENO VALLEY, CALIFORNIA	

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1. VACANT LAND
(PROPOSED FUTURE COMMERCIAL WAREHOUSE BUILDING)

2. WASTE MANAGEMENT MORENO VALLEY TRANSFER STATION
(17700 INDIAN STREET)

3. VACANT LAND
(PROPOSED FUTURE COMMERCIAL WAREHOUSE BUILDING)

4. iHERB, INC.
(COMMERCIAL WAREHOUSING AND DISTRIBUTION)
(17825 INDIAN STREET)

5. VACANT LAND



LEGEND

APPROXIMATE SITE BOUNDARY

N

NO SCALE

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

ARDENT ENVIRONMENTAL GROUP, INC.

PROJECT NO. 100671001	SITE VICINITY MAP	FIGURE 2
DATE 07/15	17845 INDIAN STREET MORENO VALLEY, CALIFORNIA	

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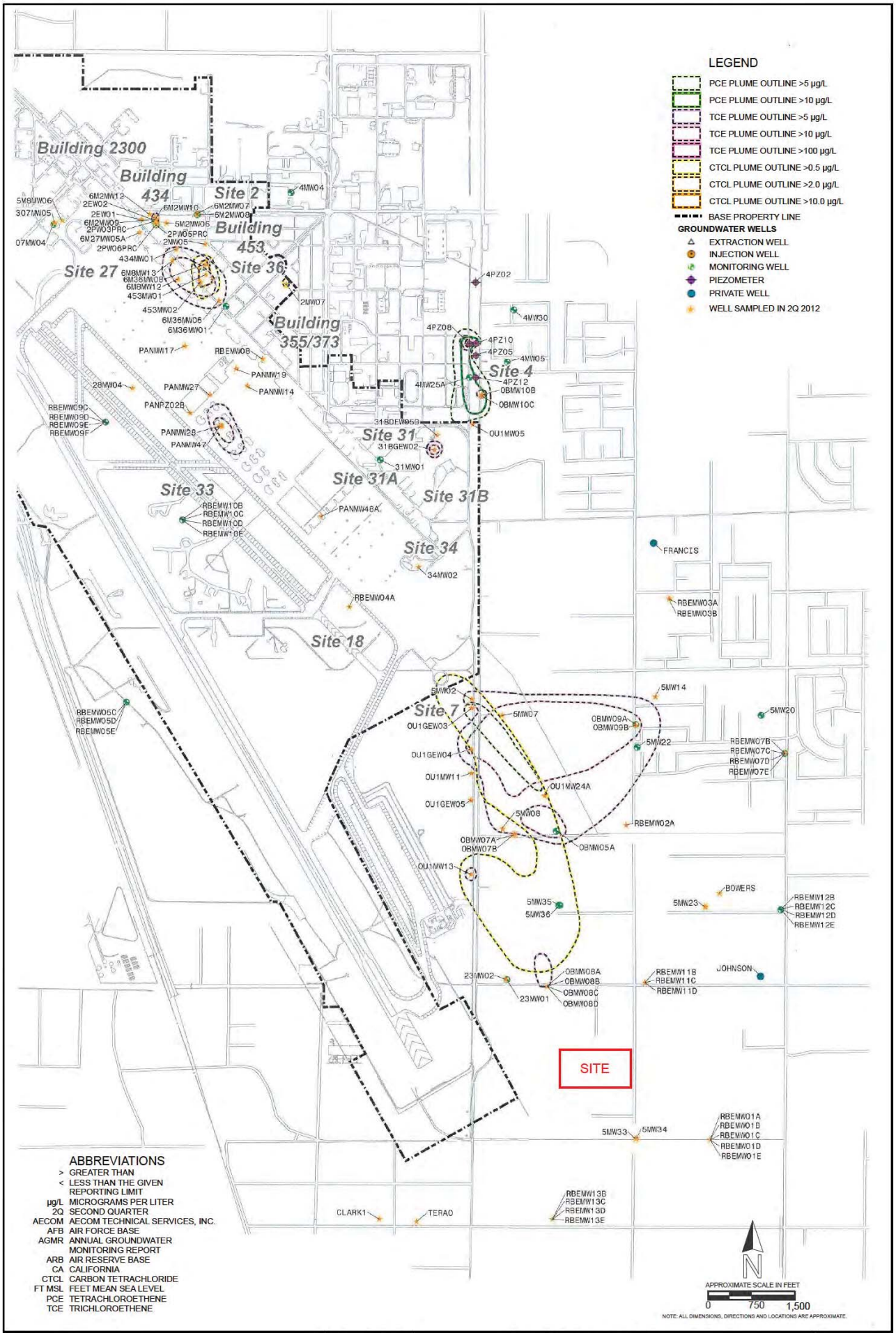

ABBREVIATIONS

>	GREATER THAN
<	LESS THAN THE GIVEN REPORTING LIMIT
µg/L	MICROGRAMS PER LITER
2Q	SECOND QUARTER
AECOM	AECOM TECHNICAL SERVICES, INC.
AFB	AIR FORCE BASE
AGMR	ANNUAL GROUNDWATER MONITORING REPORT
ARB	AIR RESERVE BASE
CA	CALIFORNIA
CTCL	CARBON TETRACHLORIDE
FT MSL	FEET MEAN SEA LEVEL
PCE	TETRACHLOROETHENE
TCE	TRICHLOROETHENE

ARDENT ENVIRONMENTAL GROUP, INC.

PROJECT NO.	MARCH AIR RESERVE BASE - GROUNDWATER PLUMES	FIGURE
100671001		3
DATE 07/15	17845 INDIAN STREET MORENO VALLEY, CALIFORNIA	

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APPENDIX A

PHOTOGRAPHIC DOCUMENTATION



Photograph No. 1: **Overall view from the northeast corner of the site (looking south-west). Commercial warehouse building occupied by iHerb, Inc. adjoining south of the site is visible in the background.**



Photograph No. 2: **Vacant land adjoining north of the site (looking northwest).**

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Photograph No. 3: **A "pond" located on the southwestern parcel (looking west). A former residence occupied the area east of the "pond."**



Photograph No. 4: **A water retention pond located off-site near the northeastern corner (looking south).**

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Photograph No. 5: **Overall view from the southwest corner of the site (looking north-east).**



Photograph No. 6: **Waste Management Moreno Valley Transfer Station adjoining northeast of the site (looking northeast).**

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APPENDIX B

USER QUESTIONNAIRE

PHASE I ENVIRONMENTAL SITE ASSESSMENT (ESA)
USER QUESTIONNAIRE

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendments*"), the *user of the Phase I ESA* must provide the following information (if available) to the *environmental professional*. Failure to provide this information could result in a determination that "*all appropriate inquiry*" is not complete.

Project Information	
Facility Name and Address:	17845 Indian St., Moreno Valle
Reason for the Phase I ESA:	Due Diligence
Type of Property:	VACANT LOT
Site Owner and Contact Information:	William Vogel. Vogel Properties
Site Contact Name and Contact Information:	300 Paseo Tesoro Walnut, CA 91789
Tax Assessors Parcel Number (APN):	316-210-019-5, 316-210-020-3, 316-210-057-9, 316-210-077-

	Yes	No
1. Are you aware of any environmental cleanup liens against the subject property that are filed or recorded under federal, state, or local law?		✓
2. Are you aware of any activity use limitations, such as engineering controls (engineered caps, liners, treatment methods, etc.), land use restrictions, or institutional controls (administrative measures restricting groundwater use, construction, or property use, etc.) that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state, or local law?		✓
3. Do you have any specialized knowledge or experience related to the subject property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the subject property so that you would have specialized knowledge of the chemicals or processes used by this type of business?	✓	
4a. Does the purchase price being paid for the subject property reasonably reflects the fair market value of the subject property?	✓	
4b. If you conclude that there is a difference in fair market price, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*?	N/A	
5. Are you aware of any commonly known or reasonably ascertainable information about the subject property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as a user,		✓
5 (a) Do you know of the past uses of the property?	✓	
5 (b) Do you know of any specific chemicals that are present or were once present on the subject property?		✓
5 (c) Do you know of spills or other chemical releases that have taken place at the subject property?		✓

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PHASE I ESA
USER QUESTIONNAIRE
Page 2

5 (d) Do you know of any environmental cleanups that have taken place at the subject property?		✓
6. As the user of this ESA, based on your knowledge and experience related to the subject property, are there any obvious indicators that point to the presence or likely presence of contamination at the subject property?		✓

If you answered "yes" to any of the questions (except 4a) above, please provide more detail below, or attach additional information to this document:

3) We own the ADJACENT PROPERTY AT 17791 PERRIS BLVD.

5) RESIDENTIAL - HOUSE DEMO'D IN 2008.

Name and title of person completing questionnaire: (Please Print)	
Monica Esteveny	
Signature of person completing questionnaire:	Date:
M	7/7/15

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APPENDIX C

HISTORICAL SITE INFORMATION



First American Title Company
National Commercial Services
18500 Von Karman Ave, Suite 600
Irvine, CA 92612

May 24, 2015

Larry W. Lukanish
SARES-REGIS Group
18802 Bardeen Ave.
Irvine , CA 92612-1521
Phone: (949)756-5959
Fax: (949)756-5955

Customer Reference: 316-210-19, 20, 57 and 77

Title Officer:	Ron Ciaramella	Title Assistant:	Gibson Reese
Phone:	(949)885-2451	Phone:	(949)885-2454
Email:	rciaramella@firstam.com	Email:	greese@firstam.com

Order Number: NCS-732600-SA1

Escrow Officer: Patty Beverly
Phone: (949)885-2465
Email: pbeverly@firstam.com

Property: Vacant Land, Moreno Valley, CA

Attached please find the following item(s):

Commitment

Thank You for your confidence and support. We at First American Title Insurance Company maintain the fundamental principle:

Customer First!

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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First American Title Insurance Company

INFORMATION

The Title Insurance Commitment is a legal contract between you and the company. It is issued to show the basis on which we will issue a Title Insurance Policy to you. The Policy will insure you against certain risks to the land title, subject to the limitations shown in the policy.

The Company will give you a sample of the Policy form, if you ask.

The Commitment is based on the land title as of the Commitment Date. Any changes in the land title or the transaction may affect the Commitment and the Policy.

The Commitment is subject to its Requirements, Exceptions and Conditions.

This information is not part of the title insurance commitment.

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Schedule B-1 - Requirements		
Schedule B-2 - Exceptions		
Conditions		

YOU SHOULD READ THE COMMITMENT VERY CAREFULLY.
If you have any questions about the Commitment,
please contact the issuing office.

COMMITMENT FOR TITLE INSURANCE

Issued by

First American Title Insurance Company

Agreement to Issue Policy

We agree to issue a policy to you according to the terms of this Commitment.

When we show the policy amount and your name as the proposed insured in Schedule A, this Commitment becomes effective as of the Commitment Date shown in Schedule A.

If the Requirements shown in this Commitment have not been met within six months after the Commitment Date, our obligation under this Commitment will end. Also, our obligation under this Commitment will end when the Policy is issued and then our obligation to you will be under the Policy.

Our obligation under this Commitment is limited by the following:

The Provisions in Schedule A.

The Requirements in Schedule B-1.

The Exceptions in Schedule B-2.

The Conditions.

This Commitment is not valid without Schedule A and Sections 1 and 2 of Schedule B.

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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SCHEDULE A

1. Commitment Date: May 12, 2015 at 7:30 A.M.

2. Policy or Policies to be issued: Amount

   (A) ALTA Standard Owner Policy $5,988,628.00

   Proposed Insured:

   SRG Acquisition, LLC, a California limited liability company

   (B) ALTA Extended Loan Policy $To Be Determined

   Proposed Insured:

   To Be Determined

3. (A) The estate or interest in the land described in this Commitment is:

   Fee Simple as to Parcels 1, 2, 3 and 4, an easement as to Parcel 3A.

   (B) Title to said estate or interest at the date hereof is vested in:

   VOGEL PROPERTIES, INC., A CALIFORNIA CORPORATION

4. The land referred to in this Commitment is situated in the City of Moreno Valley, County of Riverside, State of California, and is described as follows:

   PARCEL 1:

   THE NORTH 1/2 OF THE WEST 1/2 OF LOT 27, BLOCK 1 OF RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

   PARCEL 2:

   THE NORTH HALF OF THE EAST HALF OF LOT 27, BLOCK 1 OF RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, FOR UTILITY PURPOSES.

   EXCEPTING THEREFROM THE EAST 10.00 FEET THEREOF, CONVEYED TO THE MARCH JOINT POWERS AUTHORITY, A BODY POLITIC BY DEEDS RECORDED JULY 23, 2001, AS INSTRUMENT NOS. 2001-339627 AND 2001-339625, BOTH OF OFFICIAL RECORDS.

   PARCEL 3:

   THE SOUTH 1/2 OF THE WEST 1/2 OF LOT 27 IN BLOCK 1 OF RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 3A:

A NON-EXCLUSIVE EASEMENT OVER THE NORTHERLY 10 FEET OF THE SOUTH 1/2 OF THE EAST 1/2 OF LOT 27 IN BLOCK 1 OF RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, FOR UTILITY PURPOSES.

PARCEL 4:

THE SOUTH HALF OF THE EAST HALF OF LOT 27 IN BLOCK 1 OF RIVERSIDE ALFALFA ACRES, AS PER MAP RECORDED IN BOOK 8 PAGE(S) 21 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPTING THEREFROM THE EAST 10.00 FEET OF SAID LAND AS CONVEYED TO MARCH JOINT POWERS AUTHORITY, A BODY POLITIC BY GRANT DEED RECORDED FEBRUARY 2, 2004 AS INSTRUMENT NO. 2004-0074786 OF OFFICIAL RECORDS.

APN: 316-210-019-5 (Affects Parcel 1)
316-210-020-5 (Affects Parcel 3)
316-210-057-9 (Affects Parcel 2) and
316-210-077-7 (Affects Parcel 4)

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

SCHEDULE B

SECTION ONE

REQUIREMENTS

The following requirements must be met:

(A) Pay the agreed amounts for the interest in the land and/or the mortgage to be insured.

(B) Pay us the premiums, fees and charges for the policy.

(C) Documents satisfactory to us creating the interest in the land and/or the mortgage to be insured must be signed, delivered and recorded.

(D) You must tell us in writing the name of anyone not referred to in this Commitment who will get an interest in the land or who will make a loan on the land. We may then make additional requirements or exceptions.

(E) Releases(s) or Reconveyance(s) of Item(s): None

(F) Other: None

(G) You must give us the following information:
1. Any off record leases, surveys, etc.
2. Statement(s) of Identity, all parties.
3. Other: None

The following additional requirements, as indicated by "X", must be met:

[X] (H) Provide information regarding any off-record matters, which may include, but are not limited to: leases, recent works of improvement, or commitment statements in effect under the Environmental Responsibility Acceptance Act, Civil Code Section 850, et seq.

The Company's Owner's Affidavit form (as provided by company) must be completed and submitted prior to close in order to satisfy this requirement. This Commitment will then be subject to such further exceptions and/or requirements as may be deemed necessary.

[] (I) An ALTA/ACSM survey of recent date, which complies with the current minimum standard detail requirements for ALTA/ACSM land title surveys, must be submitted to the Company for review. This Commitment will then be subject to such further exceptions and/or requirements as may be deemed necessary.

[] (J) The following LLC documentation is required:
(i) a copy of the Articles of Organization
(ii) a copy of the Operating Agreement, if applicable
(iii) a Certificate of Good Standing and/or other evidence of current Authority to Conduct Business within the State
(iv) express Company Consent to the current transaction

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

[] (K) The following partnership documentation is required **:**
(i) a copy of the partnership agreement, including all applicable amendments thereto
(ii) a Certificate of Good Standing and/or other evidence of current Authority to Conduct Business within the State
(iii) express Partnership Consent to the current transaction

[X] (L) The following corporation documentation is required:
(i) a copy of the Articles of Incorporation
(ii) a copy of the Bylaws, including all applicable Amendments thereto
(iii) a Certificate of Good Standing and/or other evidence of current Authority to Conduct Business within the State
(iv) express Corporate Resolution consenting to the current transaction

[**X**] (M) Based upon the Company's review of that certain partnership/operating agreement dated **Not disclosed** for the proposed insured herein, the following requirements must be met:

Any further amendments to said agreement must be submitted to the Company, together with an affidavit from one of the general partners or members stating that it is a true copy, that said partnership or limited liability company is in full force and effect, and that there have been no further amendments to the agreement. This Commitment will then be subject to such further requirements as may be deemed necessary.

[] (N) A copy of the complete lease, as referenced in Schedule A, #3 herein, together with any amendments and/or assignments thereto, must be submitted to the Company for review, along with an affidavit executed by the present lessee stating that it is a true copy, that the lease is in full force and effect, and that there have been no further amendments to the lease. This Commitment will then be subject to such further requirements as may be deemed necessary.

[X] (O) Approval from the Company's Underwriting Department must be obtained for issuance of the policy contemplated herein and any endorsements requested thereunder. This Commitment will then be subject to such further requirements as may be required to obtain such approval.

[] (P) Potential additional requirements, if ALTA Extended coverage is contemplated hereunder, and work on the land has commenced prior to close, some or all of the following requirements, and any other requirements which may be deemed necessary, may need to be met:

[] (Q) The Company's "Indemnity Agreement I" must be executed by the appropriate parties.

[] (R) Financial statements from the appropriate parties must be submitted to the Company for review.

[] (S) A copy of the construction contract must be submitted to the Company for review.

[] (T) An inspection of the land must be performed by the Company for verification of the phase of construction.

[] (U) The Company's "Mechanic's Lien Risk Addendum" form must be completed by a Company employee, based upon information furnished by the appropriate parties involved.

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SCHEDULE B

SECTION TWO

EXCEPTIONS

Any policy we issue will have the following exceptions unless they are taken care of to our satisfaction. The printed exceptions and exclusions from the coverage of the policy or policies are set forth in Exhibit A attached. Copies of the policy forms should be read. They are available from the office which issued this Commitment.

1. General and special taxes and assessments for the fiscal year 2015-2016, a lien not yet due or payable.

2. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

3. The fact that the land lies within the boundaries of the March Air Force Base Redevelopment Project Area, as disclosed by the document recorded June 11, 2007 as Instrument No. 2007-0380610 of Official Records.

4. Water rights, claims or title to water, whether or not shown by the public records.

5. Rights of parties in possession.

The Following Matters Affect Parcel 1:

6. An offer of dedication for public road purposes, public utility services and incidental purposes, recorded November 10, 1971 as Instrument No. 129039 of Official Records.
   To: The County of Riverside

7. The effect of a resolution by the Riverside County Board of Supervisors accepting said offer of dedication for the purpose of vesting title in the County of Riverside on behalf of the public, but not as part of the county-maintained road system, recorded March 30, 1983 as Instrument No. 83-59526 of Official Records of Riverside County, California.

The Following Matters Affect Parcel 2:

8. An offer of dedication for public road purposes, public utility services and incidental purposes, recorded November 10, 1971 as Instrument No. 129039 of Official Records.
   To: The County of Riverside

9. The effect of a resolution by the Riverside County Board of Supervisors accepting said offer of dedication for the purpose of vesting title in the County of Riverside on behalf of the public, but not as part of the county-maintained road system, recorded March 30, 1983 as Instrument No. 83-59526 of Official Records of Riverside County, California.

10. The terms and provisions contained in the document entitled "Resolution No. 1482.4" recorded January 11, 1990 as Instrument No. 90-12864 of Official Records.

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

11. The terms and provisions contained in the document entitled "Resolution No. 1482-5" recorded June 9, 1992 as Instrument No. 92-208420 of Official Records.

The Following Matters Affect Parcel 3:

12. An easement for utilities and incidental purposes, recorded November 10, 1971 as Instrument No. 129038 of Official Records.
In Favor of: Robert N. Francis and Anne E. Francis
Affects: As described therein

13. An offer of dedication for public road purposes, public utility services and incidental purposes, recorded November 10, 1971 as Instrument No. 129039 of Official Records.
To: The County of Riverside

The Following Matters Affect Parcel 4:

14. An offer of dedication for public road purposes, public utility services and incidental purposes, recorded November 19, 1971 as Instrument No. 129039 of Official Records.
To: The County of Riverside

15. An easement for non-specific purposes and incidental purposes, recorded May 23, 1977 as Instrument No. 92340 of Official Records.
In Favor of: Anthony M. Librenjak, a single man, et al.
Affects: As described therein

16. An offer of dedication for access and maintenance purposes, including highway purposes, utilities and public service facilities and incidental purposes, recorded September 6, 2006 as Instrument No. 2006-0656407 of Official Records.
To: The City of Moreno Valley, a municipal corporation

17. Any lien, assessment, and /or violation or enforcement of any law, ordinance, permit or governmental regulation arising from the document entitled Notice of Code Violation Non Compliance recorded January 8, 2008 as Instrument No. 2008-0009264 of Official Records.

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INFORMATIONAL NOTES

1. Taxes for proration purposes only for the fiscal year 2014-2015.
   First Installment: $2,230.04, PAID
   Second Installment: $2,230.04, PAID
   Tax Rate Area: 021-485
   APN: 316-210-019-5

   (Affects Parcel 1)

2. Taxes for proration purposes only for the fiscal year 2014-2015.
   First Installment: $2,229.58, PAID
   Second Installment: $2,229.58, PAID
   Tax Rate Area: 021-485
   APN: 316-210-020-5

   (Affects Parcel 3)

3. Taxes for proration purposes only for the fiscal year 2014-2015.
   First Installment: $2,178.00, PAID
   Second Installment: $2,178.00, PAID
   Tax Rate Area: 021-485
   APN: 316-210-057-9

   (Affects Parcel 2)

4. Taxes for proration purposes only for the fiscal year 2014-2015.
   First Installment: $5,774.61, PAID
   Second Installment: $5,774.61, PAID
   Tax Rate Area: 021-485
   APN: 316-210-077-7

   (Affects Parcel 4)

5. The property covered by this report is vacant land.

6. According to the public records, there has been no conveyance of the land within a period of twenty-four months prior to the date of this report, except as follows:

   None

7. This preliminary report/commitment was prepared based upon an application for a policy of title insurance that identified land by street address or assessor's parcel number only. It is the responsibility of the applicant to determine whether the land referred to herein is in fact the land that is to be described in the policy or policies to be issued.

The map attached, if any, may or may not be a survey of the land depicted hereon. First American Title Insurance Company expressly disclaims any liability for loss or damage which may result from reli

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

on this map except to the extent coverage for such loss or damage is expressly provided by the terms and provisions of the title insurance policy, if any, to which this map is attached.

*****To obtain wire instructions for deposit of funds to your escrow file please contact your Escrow Officer.*****

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CONDITIONS

1. **DEFINITIONS**
(a)"Mortgage" means mortgage, deed of trust or other security instrument.
(b)"Public Records" means title records that give constructive notice of matters affecting the title according to the state law where the land is located.

2. **LATER DEFECTS**
The Exceptions in Schedule B - Section Two may be amended to show any defects, liens or encumbrances that appear for the first time in the public records or are created or attached between the Commitment Date and the date on which all of the Requirements (a) and (c) of Schedule B - Section One are met. We shall have no liability to you because of this amendment.

3. **EXISTING DEFECTS**
If any defects, liens or encumbrances existing at Commitment Date are not shown in Schedule B, we may amend Schedule B to show them. If we do amend Schedule B to show these defects, liens or encumbrances, we shall be liable to you according to Paragraph 4 below unless you knew of this information and did not tell us about it in writing.

4. **LIMITATION OF OUR LIABILITY**
Our only obligation is to issue to you the Policy referred to in this Commitment, when you have met its Requirements. If we have any liability to you for any loss you incur because of an error in this Commitment, our liability will be limited to your actual loss caused by your relying on this Commitment when you acted in good faith to:

comply with the Requirements shown in Schedule B - Section One
or
eliminate with our written consent any Exceptions shown in Schedule B - Section Two.

We shall not be liable for more than the Policy Amount shown in Schedule A of this Commitment and our liability is subject to the terms of the Policy form to be issued to you.

5. **CLAIMS MUST BE BASED ON THIS COMMITMENT**
Any claim, whether or not based on negligence, which you may have against us concerning the title to the land must be based on this commitment and is subject to its terms.

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First American Title

Privacy Information

We Are Committed to Safeguarding Customer Information

In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information - particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, together with our subsidiaries we have adopted this Privacy Policy to govern the use and handling of your personal information.

Applicability

This Privacy Policy governs our use of the information that you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity. First American has also adopted broader guidelines that govern our use of personal information regardless of its source. First American calls these guidelines its Fair Information Values.

Types of Information

Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means;
- Information about your transactions with us, our affiliated companies, or others; and
- Information we receive from a consumer reporting agency.

Use of Information

We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic personal information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

Former Customers

Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

Confidentiality and Security

We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy and First American's Fair Information Values. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Information Obtained Through Our Web Site

First American Financial Corporation is sensitive to privacy issues on the Internet. We believe it is important you know how we treat the information about you we receive on the Internet.
In general, you can visit First American or its affiliates' Web sites on the World Wide Web without telling us who you are or revealing any information about yourself. Our Web servers collect the domain names, not the e-mail addresses, of visitors. This information is aggregated to measure the number of visits, average time spent on the site, pages viewed and similar information. First American uses this information to measure the use of our site and to develop ideas to improve the content of our site.
There are times, however, when we may need information from you, such as your name and email address. When information is needed, we will use our best efforts to let you know at the time of collection how we will use the personal information. Usually, the personal information we collect is used only by us to respond to your inquiry, process an order or allow you to access specific account/profile information. If you choose to share any personal information with us, we will only use it in accordance with the policies outlined above.

Business Relationships

First American Financial Corporation's site and its affiliates' sites may contain links to other Web sites. While we try to link only to sites that share our high standards and respect for privacy, we are not responsible for the content or the privacy practices employed by other sites.

Cookies

Some of First American's Web sites may make use of "cookie" technology to measure site activity and to customize information to your personal tastes. A cookie is an element of data that a Web site can send to your browser, which may then store the cookie on your hard drive.
FirstAm.com uses stored cookies. The goal of this technology is to better serve you when visiting our site, save you time when you are here and to provide you with a more meaningful and productive Web site experience.

Fair Information Values

Fairness We consider consumer expectations about their privacy in all our businesses. We only offer products and services that assure a favorable balance between consumer benefits and consumer privacy.
Public Record We believe that an open public record creates significant value for society, enhances consumer choice and creates consumer opportunity. We actively support an open public record and emphasize its importance and contribution to our economy.
Use We believe we should behave responsibly when we use information about a consumer in our business. We will obey the laws governing the collection, use and dissemination of data.
Accuracy We will take reasonable steps to help assure the accuracy of the data we collect, use and disseminate. Where possible, we will take reasonable steps to correct inaccurate information. When, as with the public record, we cannot correct inaccurate information, we will take all reasonable steps to assist consumers in identifying the source of the erroneous data so that the consumer can secure the required corrections.
Education We endeavor to educate the users of our products and services, our employees and others in our industry about the importance of consumer privacy. We will instruct our employees on our fair information values and on the responsible collection and use of data. We will encourage others in our industry to collect and use information in a responsible manner.
Security We will maintain appropriate facilities and systems to protect against unauthorized access to and corruption of the data we maintain.

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EXHIBIT A
LIST OF PRINTED EXCEPTIONS AND EXCLUSIONS (BY POLICY TYPE)

1. CALIFORNIA LAND TITLE ASSOCIATION STANDARD COVERAGE POLICY - 1990
SCHEDULE B

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notice of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, which are not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the public records.

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
   (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
   (c) resulting in no loss or damage to the insured claimant;
   (d) attaching or created subsequent to Date of Policy; or
   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with applicable "doing business" laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, which arises out of the transaction vesting in the insured the estate or interest insured by their policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

2. AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY FORM B - 1970
SCHEDULE OF EXCLUSIONS FROM COVERAGE

1. Any law, ordinance or governmental regulation (including but not limited to building and zoning ordinances) restricting or regulating or prohibiting the occupancy, use or enjoyment of the land, or regulating the character, dimensions or location of any improvement now or hereafter erected on the land, or prohibiting a separation in ownership or a reduction in the dimensions of area of the land, or the effect of any violation of any such law, ordinance or governmental regulation.
2. Rights of eminent domain or governmental rights of police power unless notice of the exercise of such rights appears in the public records at Date of Policy.
3. Defects, liens, encumbrances, adverse claims, or other matters (a) created, suffered, assumed or agreed to by the insured claimant; (b) not known to the Company and not shown by the public records but known to the insured claimant either at Date of Policy or at the date such claimant acquired an estate or interest insured by this policy and not disclosed in writing by the insured claimant to the Company prior to the date such insured claimant became an insured hereunder; (c) resulting in no loss or damage to the insured claimant; (d) attaching or created subsequent to Date of Policy; or (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the estate or interest insured by this policy.

3. AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY FORM B - 1970
WITH REGIONAL EXCEPTIONS

When the American Land Title Association policy is used as a Standard Coverage Policy and not as an Extended Coverage Policy the exclusions set forth in paragraph 2 above are used and the following exceptions to coverage appear in the policy.

SCHEDULE B

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This policy does not insure against loss or damage by reason of the matters shown in parts one and two following:
Part One

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of said land or by making inquiry of persons in possession thereof.
3. Easements, claims of easement or encumbrances which are not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by public records.
5. Unpatented mining claims; reservations or exceptions in patents or in Acts authorizing the issuance thereof; water rights, claims or title to water.
6. Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the public records.

4. AMERICAN LAND TITLE ASSOCIATION LOAN POLICY - 1970
WITH A.L.T.A. ENDORSEMENT FORM 1 COVERAGE
SCHEDULE OF EXCLUSIONS FROM COVERAGE

1. Any law, ordinance or governmental regulation (including but not limited to building and zoning ordinances) restricting or regulating or prohibiting the occupancy, use or enjoyment of the land, or regulating the character, dimensions or location of any improvement now or hereafter erected on the land, or prohibiting a separation in ownership or a reduction in the dimensions or area of the land, or the effect of any violation of any such law ordinance or governmental regulation.
2. Rights of eminent domain or governmental rights of police power unless notice of the exercise of such rights appears in the public records at Date of Policy.
3. Defects, liens, encumbrances, adverse claims, or other matters (a) created, suffered, assumed or agreed to by the insured claimant, (b) not known to the Company and not shown by the public records but known to the insured claimant either at Date of Policy or at the date such claimant acquired an estate or interest insured by this policy or acquired the insured mortgage and not disclosed in writing by the insured claimant to the Company prior to the date such insured claimant became an insured hereunder, (c) resulting in no loss or damage to the insured claimant; (d) attaching or created subsequent to Date of Policy (except to the extent insurance is afforded herein as to any statutory lien for labor or material or to the extent insurance is afforded herein as to assessments for street improvements under construction or completed at Date of Policy).
4. Unenforceability of the lien of the insured mortgage because of failure of the insured at Date of Policy or of any subsequent owner of the indebtedness to comply with applicable "doing business" laws of the state in which the land is situated.

5. AMERICAN LAND TITLE ASSOCIATION LOAN POLICY - 1970
WITH REGIONAL EXCEPTIONS

When the American Land Title Association Lenders Policy is used as a Standard Coverage Policy and not as an Extended Coverage Policy, the exclusions set forth in paragraph 4 above are used and the following exceptions to coverage appear in the policy.

SCHEDULE B

This policy does not insure against loss or damage by reason of the matters shown in parts one and two following:
Part One

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of said land or by making inquiry of persons in possession thereof.
3. Easements, claims of easement or encumbrances which are not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by public records.
5. Unpatented mining claims; reservations or exceptions in patents or in Acts authorizing the issuance thereof; water rights, claims or title to water.
6. Any lien, or right to a lien, for services, labor or material theretofore or hereafter furnished, imposed by law and not shown by the public records.

6. AMERICAN LAND TITLE ASSOCIATION LOAN POLICY - 1992
WITH A.L.T.A. ENDORSEMENT FORM 1 COVERAGE
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy;
(b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.

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2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims, or other matters:
(a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
(b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
(c) resulting in no loss or damage to the insured claimant;
(d) attaching or created subsequent to Date of Policy (except to the extent that this policy insures the priority of the lien of the insured mortgage over any statutory lien for services, labor or material or the extent insurance is afforded herein as to assessments for street improvements under construction or completed at date of policy); or
(e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable "doing business" laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any statutory lien for services, labor or materials (or the claim of priority of any statutory lien for services, labor or materials over the lien of the insured mortgage) arising from an improvement or work related to the land which is contracted for and commenced subsequent to Date of Policy and is not financed in whole or in part by proceeds of the indebtedness secured by the insured mortgage which at Date of Policy the insured has advanced or is obligated to advance.
7. Any claim, which arises out of the transaction creating the interest of the mortgagee insured by this policy, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that is based on:
(i) the transaction creating the interest of the insured mortgagee being deemed a fraudulent conveyance or fraudulent transfer; or
(ii) the subordination of the interest of the insured mortgagee as a result of the application of the doctrine of equitable subordination; or
(iii) the transaction creating the interest of the insured mortgagee being deemed a preferential transfer except where the preferential transfer results from the failure:
(a) to timely record the instrument of transfer; or
(b) of such recordation to impart notice to a purchaser for value or a judgment or lien creditor.

7. AMERICAN LAND TITLE ASSOCIATION LOAN POLICY - 1992
WITH REGIONAL EXCEPTIONS

When the American Land Title Association policy is used as a Standard Coverage Policy and not as an Extended Coverage Policy the exclusions set forth in paragraph 6 above are used and the following exceptions to coverage appear in the policy.

SCHEDULE B

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of said land or by making inquiry of persons in possession thereof.
3. Easements, claims of easement or encumbrances which are not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by public records.
5. Unpatented mining claims; reservations or exceptions in patents or in Acts authorizing the issuance thereof; water rights, claims or title to water.
6. Any lien, or right to a lien, for services, labor or material theretofore or hereafter furnished, imposed by law and not shown by the public records.

8. AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY - 1992
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
(b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims, or other matters:
(a) created, suffered, assumed or agreed to by the insured claimant;
(b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
(c) resulting in no loss or damage to the insured claimant;
(d) attaching or created subsequent to Date of Policy; or

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(e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the estate or interest insured by this policy.

4. Any claim, which arises out of the transaction vesting in the insured the estate or interest insured by this policy, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that is based on:
(i) the transaction creating the estate or interest insured by this policy being deemed a fraudulent conveyance or fraudulent transfer; or
(ii) the transaction creating the estate or interest insured by this policy being deemed a preferential transfer except where the preferential transfer results from the failure:
(a) to timely record the instrument of transfer; or
(b) of such recordation to impart notice to a purchaser for value or a judgment or lien creditor.

9. AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY - 1992
WITH REGIONAL EXCEPTIONS

When the American Land Title Association policy is used as a Standard Coverage Policy and not as an Extended Coverage Policy the exclusions set forth in paragraph 8 above are used and the following exceptions to coverage appear in the policy.

SCHEDULE B

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:
Part One:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of said land or by making inquiry of persons in possession thereof.
3. Easements, claims of easement or encumbrances which are not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by public records.
5. Unpatented mining claims; reservations or exceptions in patents or in Acts authorizing the issuance thereof; water rights, claims or title to water.
6. Any lien, or right to a lien, for services, labor or material theretofore or hereafter furnished, imposed by law and not shown by the public records.

ALTA RESIDENTIAL TITLE INSURANCE POLICY (6-1-87)
EXCLUSIONS

In addition to the Exceptions in Schedule B, you are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of any law or government regulation. This includes building and zoning ordinances and also laws and regulations concerning:
   (a) and use
   (b) improvements on the land
   (c) and division
   (d) environmental protection
   This exclusion does not apply to violations or the enforcement of these matters which appear in the public records at Policy Date.
   This exclusion does not limit the zoning coverage described in Items 12 and 13 of Covered Title Risks.
2. The right to take the land by condemning it, unless:
   (a) a notice of exercising the right appears in the public records on the Policy Date
   (b) the taking happened prior to the Policy Date and is binding on you if you bought the land without knowing of the taking
3. Title Risks:
   (a) that are created, allowed, or agreed to by you
   (b) that are known to you, but not to us, on the Policy Date -- unless they appeared in the public records
   (c) that result in no loss to you
   (d) that first affect your title after the Policy Date -- this does not limit the labor and material lien coverage in Item 8 of Covered Title Risks
4. Failure to pay value for your title.
5. Lack of a right:
   (a) to any land outside the area specifically described and referred to in Item 3 of Schedule A OR
   (b) in streets, alleys, or waterways that touch your land
   This exclusion does not limit the access coverage in Item 5 of Covered Title Risks.

11. EAGLE PROTECTION OWNER'S POLICY

CLTA HOMEOWNER'S POLICY OF TITLE INSURANCE - 1998
ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE - 1998

Covered Risks 14 (Subdivision Law Violation). 15 (Building Permit). 16 (Zoning) and 18 (Encroachment of boundary walls or fences) are subject to Deductible Amounts and Maximum Dollar Limits of Liability

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EXCLUSIONS

In addition to the Exceptions in Schedule B, you are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of any law or government regulation. This includes ordinances, laws and regulations concerning:
   a. building
   b. zoning
   c. land use
   d. improvements on the land
   e. land division
   f. environmental protection

   This exclusion does not apply to violations or the enforcement of these matters if notice of the violation or enforcement appears in the Public Records at the Policy Date.
   This exclusion does not limit the coverage described in Covered Risk 14, 15, 16, 17 or 24.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not apply to violations of building codes if notice of the violation appears in the Public Records at the Policy Date.
3. The right to take the Land by condemning it, unless:
   a. a notice of exercising the right appears in the Public Records at the Policy Date; or
   b. the taking happened before the Policy Date and is binding on You if You bought the Land without Knowing of the taking.
4. Risks:
   a. that are created, allowed, or agreed to by You, whether or not they appear in the Public Records;
   b. that are Known to You at the Policy Date, but not to Us, unless they appear in the Public Records at the Policy Date;
   c. that result in no loss to You; or
   d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.d, 22, 23, 24 or 25.
5. Failure to pay value for Your Title.
6. Lack of a right:
   a. to any Land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
   b. in streets, alleys, or waterways that touch the Land.
   This exclusion does not limit the coverage described in Covered Risk 11 or 18.

12. THIRD GENERATION EAGLE LOAN POLICY AMERICAN LAND TITLE ASSOCIATION EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (1/01/08)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to (i) the occupancy, use, or enjoyment of the Land; (ii) the character, dimensions, or location of any improvement erected on the Land; (iii) the subdivision of land; or(iv) environmental protection; or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
   (b)Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
   (e) resulting in loss or damage which would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury, or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.

13. AMERICAN LAND TITLE ASSOCIATION LOAN POLICY - 2006

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to

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(i) the occupancy, use, or enjoyment of the Land;

(ii) the character, dimensions, or location of any improvement erected on the Land;

(iii) the subdivision of land; or

(iv) environmental protection;

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.

(b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.

2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.

3. Defects, liens, encumbrances, adverse claims, or other matters

(a) created, suffered, assumed, or agreed to by the Insured Claimant;

(b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

(c) resulting in no loss or damage to the Insured Claimant;

(d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or

(e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.

4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.

5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.

6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is

(a) a fraudulent conveyance or fraudulent transfer, or

(b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.

7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

14. AMERICAN LAND TITLE ASSOCIATION LOAN POLICY - 2006
WITH REGIONAL EXCEPTIONS

When the American Land Title Association policy is used as a Standard Coverage Policy and not as an Extended Coverage Policy the exclusions set forth in paragraph 13 above are used and the following exceptions to coverage appear in the policy.

SCHEDULE B

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.

15. AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY - 2006
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to

(i) the occupancy, use, or enjoyment of the Land;

(ii) the character, dimensions, or location of any improvement erected on the Land;

(iii) the subdivision of land; or

(iv) environmental protection;or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.

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(b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.

2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risks 9 and 10); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors rights laws, that the transaction vesting the Title as shown in Schedule A, is
   (a) a fraudulent conveyance or fraudulent transfer; or
   (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

16. AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY - 2006 WITH REGIONAL EXCEPTIONS

When the American Land Title Association policy is used as a Standard Coverage Policy and not as an Extended Coverage Policy the exclusions set forth in paragraph 15 above are used and the following exceptions to coverage appear in the policy.

SCHEDULE B

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.

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17845 Indian Street
17845 Indian Street
Moreno Valley, CA 92551

Inquiry Number: 4346403.9
July 09, 2015

The EDR Aerial Photo Decade Package

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

6 Armstrong Road, 4th Flo
Shelton, Connecticut 0648
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Date EDR Searched Historical Sources:

Aerial Photography July 09, 2015

Target Property:

17845 Indian Street

Moreno Valley, CA 92551

Year	Scale	Details	Source
1938	Aerial Photograph. Scale: 1"=500'	Flight Year: 1938	USGS
1953	Aerial Photograph. Scale: 1"=500'	Flight Year: 1953	USGS
1961	Aerial Photograph. Scale: 1"=500'	Flight Year: 1961	USGS
1967	Aerial Photograph. Scale: 1"=500'	Flight Year: 1967	USGS
1978	Aerial Photograph. Scale: 1"=500'	Flight Year: 1978	USGS
1985	Aerial Photograph. Scale: 1"=500'	Flight Year: 1985	USGS
1989	Aerial Photograph. Scale: 1"=500'	Flight Year: 1989	USGS
1994	Aerial Photograph. Scale: 1"=500'	Flight Year: 1994	USGS
2002	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 2002	USGS/DOQQ
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	USDA/NAIP
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	USDA/NAIP
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	USDA/NAIP
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	USDA/NAIP

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



INQUIRY #: 4346403.9

YEAR: 1938

= 500'

N

EDR

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



INQUIRY #: 4346403.9

YEAR: 1953

= 500'

N

EDR

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



INQUIRY #: 4346403.9

YEAR: 1961

= 500'

N

EDR

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING


INQUIRY #: 4346403.9
YEAR: 1967
= 500'
N
EDR



Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



INQUIRY #: 4346403.9

YEAR: 1989

= 500'

N

EDR

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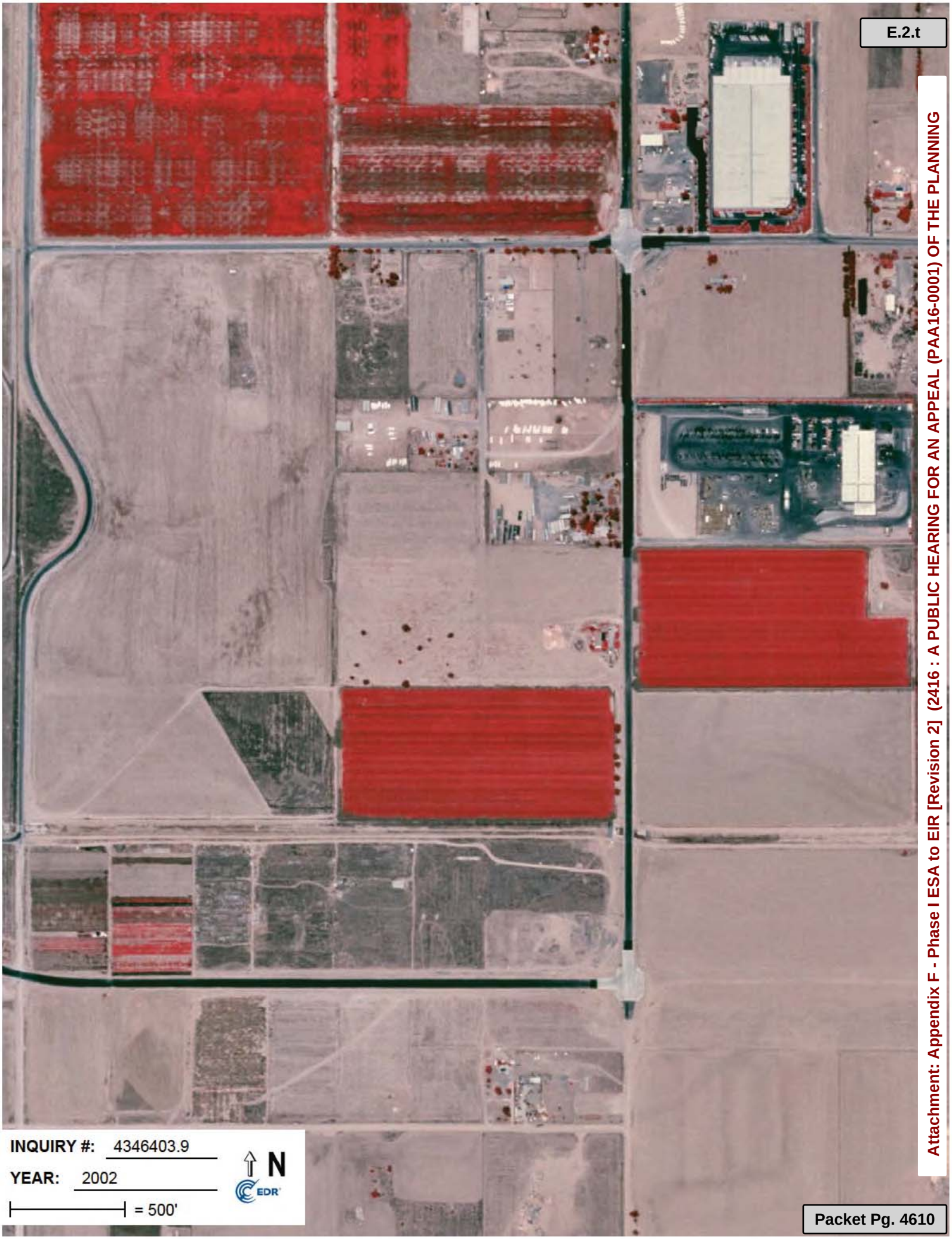
INQUIRY #: 4346403.9
YEAR: 1994
= 500'
N
EDR


INQUIRY #: 4346403.9
YEAR: 2002
= 500'
N
EDR


INQUIRY #: 4346403.9
YEAR: 2005
= 500'
N
EDR



INQUIRY #: 4346403.9

YEAR: 2006

= 500'

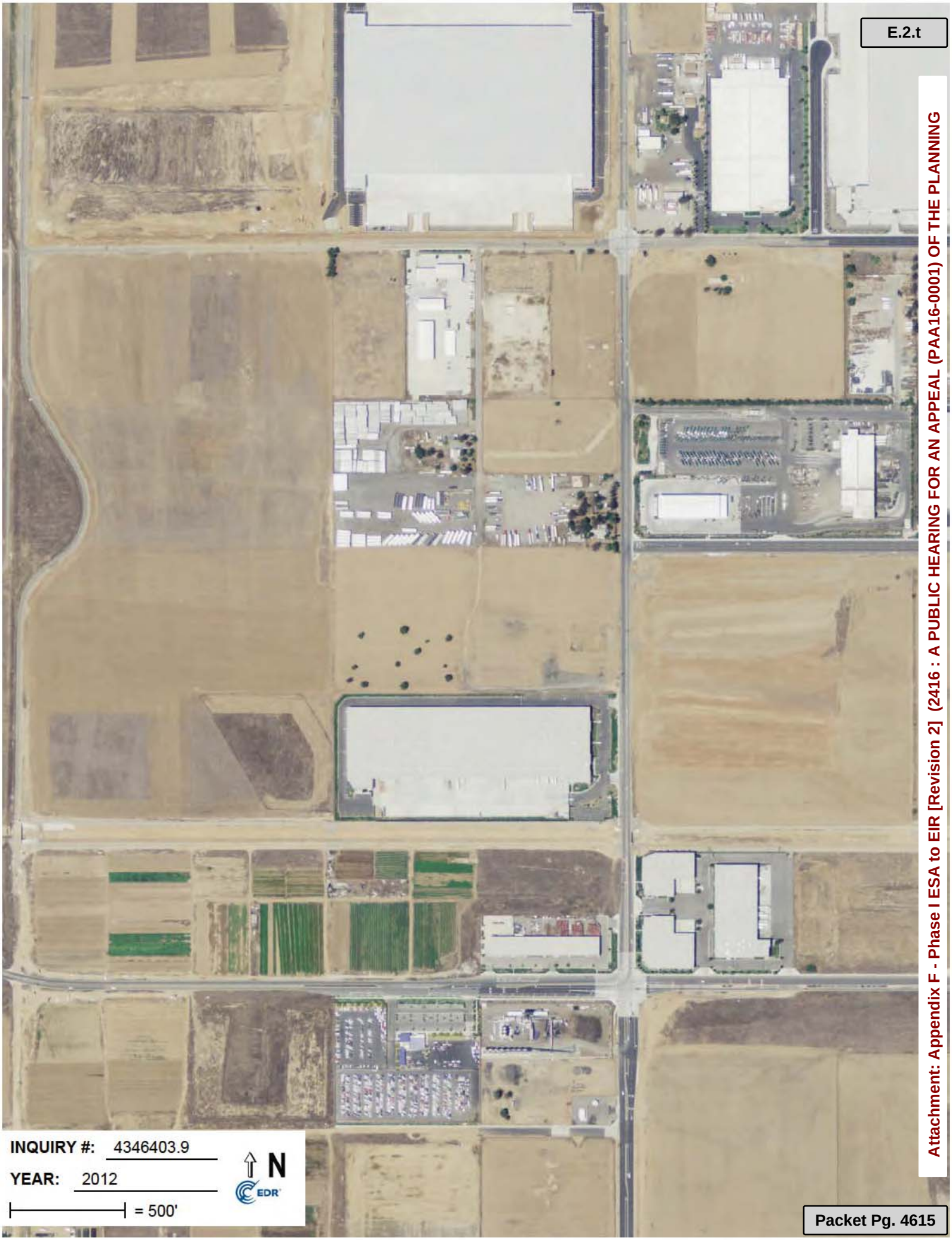
N

EDR

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING


INQUIRY #: 4346403.9
YEAR: 2009
= 500'
N
EDR


INQUIRY #: 4346403.9
YEAR: 2010
= 500'
N
EDR



Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

No: B0801303 STRUCTURAL PERMIT DATA SHEET 07-08-2015

DATA: People

CONTRACTOR	ACTIVE DEMOLITION 2924 N RIVERSIDE AVE RILATO, CA 92377 License: 884871	07/07/2008	Phone: 951-288-1495
APPLICANT	ACTIVE DEMOLITION 2924 N RIVERSIDE AVE RILATO, CA 92377 License: 884871	07/07/2008	Phone: 951-288-1495
OWNER	VOGEL PROP INC 300 PASEO TESORO WALNUT CA 91789 License:	07/07/2008	Phone: 909-598-7065

DATA: Staff

4

DATA: Parcels/Addresses

316-210-077
17845 INDIAN ST MORV

Data: Valuation

Occupancy	Type	Factor	Sq Feet	Valuation
	Totals...			$9,300.00*

Data: Base Information

Applied: 07/07/2008 Status: FINAL Plan Check Complete:
Issued: 07/07/2008
Completed: 07/25/2008 Expires: 01/21/2009

Description: DEMOLITION OF 1 SINGLE FAMILY DWELLING
Location: 747 F6 INDIAN/OLEANDER

#Units: 0 #Bldgs: 0 Pub Own:
Occupancy: Category:12 Area Sq.Ft.: 0 ??

Data: Fee Summary

Item#	Description	Account Code	Tot Fee	Paid Prv. Pmts	Cur. Pmts	
110	BUILDING - RES	1200	149.00	149.00	149.00	.00

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

No: B0801303 STRUCTURAL PERMIT DATA SHEET 07-08-2015

Total Fees:	$149.00
Additional Fees:	$0.00
Total Payments:	$149.00
Balance Due:	$0.00

DATA: Inspections

Item: 00102 FOOTINGS/HARDWARE
Item: 00201 1ST GROUT LIFT/BB/TILT-UP
Item: 00202 2ND GROUT LIFT/BB/TILT-UP
Item: 00203 3RD GROUT LIFT/BB/TILT-UP
Item: 00204 4TH GROUT LIFT/BB/TILT-UP
Item: 00304 SLAB/WATERPIPE/SUBFLOOR
Item: 00401 FLOOR SHEATHING
Item: 00501 SHEAR PANEL/HOLDDOWNS
Item: 00503 ROOF SHEATHING
Item: 00604 ROUGH FRAMING
Item: 00701 ENERGY/INSULATION
Item: 00706 DRYWALL
Item: 00708 EXTERIOR LATH/FLASHING
Item: 00711 SCRATCH COAT - 48 HOUR CURE
Item: 00712 BROWN COAT - 7 DAY CURE
Item: 00720 T-BAR
Item: 00816 FOOTINGS - SITE WALLS
Item: 00817 1ST GROUT LIFT - SITE WALLS
Item: 00818 2ND GROUT LIFT - SITE WALLS
Item: 00819 FOOTINGS - TRASH ENCLOSURE
Item: 00820 1ST GROUT LIFT - TRASH ENCLSR
Item: 00821 2ND GROUT LIFT - TRASH ENCLSR
Item: 00901 FIRE PREVENTION FINAL
Item: 00915 SPECIAL INSPECTION
Item: 00920 FINAL INSPECTION
07/25/2008 By: BRIAN Action: A Time Exp: 00:28 Comments:
CONFIRMED SEPTIC PUMPING AND REMOVAL
Item: 00913 MISC. PERMIT TIME
07/07/2008 By: NP Action: CTR Time Exp: 00:15 Comments:
ISSUED PERMIT
Item: 02000 ADMINISTRATIVE (CASE RELATED)

DATA: Conditions

DATA: Approvals

Item: 00021 EMWD
Item: 00040 GRADING RELEASE
Item: 00050 HEALTH DEPARTMENT
Item: 00070 SCHOOL FEE
Item: 00110 EMWD WASTE

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City of Moreno Valley

14177 Frederick Street
P.O. Box 88005
Moreno Valley, CA 92552-0805

Community Development Department
Building Division
(951) 413-3350

Address : 17845 INDIAN ST MORV
Permit No : B0801303
Type : BUILD
Category : 12

Insp Area : 4
Status : ISSUED
Applied : 07/07/2008
Issued : 07/07/2008
Comply By/Expires : 01/03/2009

Location : 747 F6 INDIAN/OLEANDER

Parcel # : 316210077
Tract # :
PMap :
Lot :
Plan :

Zoning :
Census : 426.05
Case # :
Occupancy :
Use :

PEOPLE INFORMATION

Owner : VOGEL PROP INC
300 PASEO TESORO
WALNUT CA 91789
909-598-7085

Business :

Telephone :

Applicant : ACTIVE DEMOLITION
2924 N RIVERSIDE AVE
RILATO, CA 92377

Telephone : 951-288-1495

Contractor : ACTIVE DEMOLITION
2924 N RIVERSIDE AVE
RILATO, CA 92377

Lic. Number : 884871
Telephone : 951-288-1495

Permit Description : DEMOLITION OF 1 SINGLE FAMILY DWELLING
New Buildings : 0
Valuation : $9,300.00

Total Permit Fees : $149.00

Inspector : _____

Receipt No : 173399

Releases (if applicable):

Electric : _____ Inspector Date

Gas : _____ Inspector Date

This permit shall be void and of no further force or effect if work hereunder is not commenced within 180 days from date of issuance hereof or if work is suspended or abandoned for a period of 180 days or more after work is commenced.

CALL FOR INSPECTION

Requests for inspection shall be made at least **twenty-four hours in advance by telephone at:** (951) 413-3350

X _____ 7/7/08
SIGNATURE OF OWNER OR AUTHORIZED AGENT DATE

OFFICE USE ONLY

_____ 7/8/08
FINAL INSPECTOR SIGNATURE DATE

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes.

_____ 7/7/08
Signature of Applicant or Agent Date

Ernest Payton
Print Applicant/Agent Name

2924 N Riverside Ave
Print Address of Applicant/Agent

cmv-1485 WHITE - CEDD Office PINK - Assessor's Office GOLDENROD - Applicant Rev. 02

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

LICENSED CONTRACTORS DECLARATION

☐ I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the California Business and Professions Code, and my license is in full force and effect.

License Class: C-21 License No: 88487

Date: 7/7/08 Contractor's Signature: [signature]

WORKER'S COMPENSATION INSURANCE DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for worker's compensation insurance, as provided for by Section 3700 of the California Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain worker's compensation insurance, as required by Section 3700 of the California Labor Code, for the performance of the work for which this permit is issued. My worker's compensation insurance carrier and policy number are:

Carrier: _____

Policy Number: _____

(This section need not be completed if the permit is for one hundred dollars ($100) or less.)

☑ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the worker's compensation insurance laws of California, and agree that if I should become subject to the worker's compensation provisions of Section 3700 of the California Labor Code I shall forthwith comply with those provisions.

Date: 7/7/08

Applicant Signature: [signature]

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES, INTEREST, AND ATTORNEY'S FEES AS PROVIDED FOR IN SECTION 3706 OF THE CALIFORNIA LABOR CODE.

HAZARDOUS MATERIALS AND EMISSIONS CERTIFICATION

(These requirements do not apply to residential construction.)

Permit Number: _____ Date: _____

1. Will the applicant or present or future building occupant need to file and certify a Business Plan for emergency response to a release or threatened release of a hazardous material?
Yes ☐ No ☐

(Section 25505 of the California Health and Safety Code requires, with some exceptions, that a Business Plan be filed with the County of Riverside by every business which has at any time during a reporting year a quantity of hazardous materials equal to or greater than a weight of 500 pounds, or a volume of 55 gallons, or 200 cubic feet of compressed gas at standard temperature and pressure.)

2. Does or will the applicant or present or future building occupant need to file a registration form for acutely hazardous materials?
Yes ☐ No ☐

(Section 25533 of the California Health and Safety Code requires, with some exceptions, registration with the County of Riverside by every business which has or will at any one time have on hand a quantity of acutely hazardous materials equal to or greater than a weight of 500 pounds, or a volume of 55 gallons, or 200 cubic feet of compressed gas at standard temperature and pressure.)

3. Does or will the applicant or present or future building occupant need to prepare an RMPP (Risk Management and Prevention Program) for acutely hazardous materials?
Yes ☐ No ☐

(Section 25534 of the California Health and Safety Code provides that the County of Riverside may require the preparation, certification and filing with the County of an RMPP by businesses which are required to register acutely hazardous materials with the County.)

4. If any RMPP is presently required, has Section 25534 of the California Health and Safety Code been fully complied with?
Yes ☐ No ☐

5. Does or will the applicant or present or future building occupant require, for the work which is the subject of this application, a permit for such construction or modification from the South Coast Air Quality Management District or from any other air pollution district or agency?
Yes ☐ No ☐

(Section 65850.5 of the California Government Code requires that the requested information be furnished on applications for non-residential building permits.)

6. Will any part of the facility to be constructed under this permit be within 1000 feet from the outer boundary of a school?
Yes ☐ No ☐

(If "yes," the facility must meet the requirements of Sections 25534 and 42301 of the California Health and Safety Code.)

7. If a permit from the South Coast Air Quality Management District or other air pollution control district or agency is required for the work which is the subject of this application, have all the disclosures prescribed by California Health and Safety Code Section 42303 been made?
Yes ☐ No ☐

(If "yes," attach certificate of compliance from the appropriate air pollution control office.)

Certificate of Compliance: I certify that, under penalty of perjury, the information given above is correct. I agree to comply with all state laws and city ordinances regarding Hazardous Materials and Emissions.

Signature of Applicant/Agent: _____ Date: _____

Print Applicant/Agent Name: _____

Print Address of Applicant/Agent: _____

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractor's License Law for the following reason: _____

Exemption Code Section

Reason for Exemption

SIGNATURE: _____ DATE: _____

(Section 7031.5, California Business and Professions Code, any City or County which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9, commencing with Section 7000, of Division 3 of the California Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).)

I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale. (Section 7044, California Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.)

SIGNATURE: _____ DATE: _____

I, as owner of the property, am exclusively contracting with licensed contractors to construct the project. (Section 7044, California Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law.)

SIGNATURE: _____ DATE: _____

(b) The Contractors' State License Board shall semiannually compile and distribute to city and county building departments a list of all contractors who did not secure payment of compensation with Article 1 (commencing with Section 3700) of Chapter 4 of Part 1 of Division 4 of the California Labor Code during any period for which workers were employed during the preceding six months.
SEC. 2. Section 3800 of the California Labor Code is amended to read: 3800. (a) Every county or city which requires the issuance of a permit as a condition precedent to the construction, alteration, improvement, demolition, or repair of any building or structure shall require that each applicant for the permit sign a declaration under penalty of perjury verifying worker's compensation coverage or exemption from coverage, as required by Section 19825 of the Health and Safety Code.
(b) At the time of permit issuance, contractors shall show their valid worker's compensation insurance certificate.
SEC. 3. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs which may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, changes the definition of a crime or infraction, changes the penalty for a crime or infraction, or eliminates a crime or infraction. Notwithstanding Section 17580 of the Government Code, unless otherwise specified in this act, the provisions of this act shall become operative on the same date that the act takes effect pursuant to the California Constitution.

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MORENO VALLEY
WHERE DREAMS SOAR

Community Development Department
Building Division
14177 Frederick Street
P.O. Box 88005
Moreno Valley, CA. 92552- 0805
(951) 413-3350
(951) 413-3210 FAX

APPLICATION FOR BUILDING PERMIT

Permit No.: BO801303

Project Address: 17895 Indian St Date: 7/7/08

Assessor's Parcel Number(s):

Describe Permit Use: Demo House

Property Owner Name: Vogel Properties Telephone: (909) 598-7065

Address: 300 Paseo Tesoro

City: Walnut State: CA Zip: 91789

Contact Person William Vogel Fax No.: ( )

Applicant Name: Active Demolition Telephone: (909) 286-3363

Address: 2924 N. Riverside Ave

City: Rialto State: CA Zip: 92377

Contact Person: Tyrell Payton Contact Telephone: (951) 288-1495

Contractor's State License # (if applicable): 884871 Type: C-21 Expiration Date: 9/30/08

Contractor's Workers Compensation Insurance Carrier: N/A

Contractor's City Business License#:

1. Will permit include mechanical work: Yes: (No)
   If yes, describe:
2. Will permit include electrical work: Yes: (No)
   If yes, describe:
3. Will permit include plumbing work: Yes: (No)
   If yes, describe:
4. Additional information or comments: Demolish Residential structure

Owner/Applicant Signature:

DEPARTMENT USE ONLY:

Inspection Area:	Tract#:	PM#:
Lot #:	Case #:	Val By:
Occupancy:	Type:	Zoning:
Setbacks: F:	L: R:	B:

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BUILDING PERMITS

Attention:

In order to process a building permit, you must have one of the following:

1) You must be a licensed contractor (through the California State Contractors Board) or

2) You must be a State-licensed Architect or Engineer or

3) You must be the Owner of the property

If none of the above applies to you, you must have a "notarized" letter from the property owner giving you permission to process permits on their property.

Thank you

747 F6
Indian/Oleander
4-26-05 (4)

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
NOTIFICATION OF DEMOLITION OR ASBESTOS REMOVAL

MAIL FORM AND FEE TO SCAQMD, ASBESTOS NOTIFICATIONS, FILE # 55641, LOS ANGELES CA 90074-5641

AQMD USE ONLY	**SCREEN BY**	**RECEIVED**	**POSTMARK**	**ENTERED BY**	**NOTIFICATION #**
COMPLETED BY Tyneil Payton	COMPANY Active Demolition		PHONE 909.286.3363		
DATE 6/20/08	CHECK #	FEE $ 47.32		PROJECT #	
NOTIFICATION TYPE	ORIGINAL X	REVISION DATES	REVISION OTHER (highlight)	CANCELLATION	
PROJECT TYPE	DEMOLITION X	ORDERED DEMOLITION	RENOVATION (removal)	EMERGENCY REMOVAL	PLANNED RENO (annual)
SITE INFORMATION	SITE NAME Indian st				
SITE ADDRESS 17845 Indian St			CROSS STREET		
CITY Moreno Valley	STATE Ca	ZIP 92551	COUNTY Riverside		
DESCRIBE WORK AND LOCATION house	Demo				
BUILDING SIZE (SQ FT) 1000	NUMBER OF FLOORS 1	BUILDING AGE unknown	NUMBER OF DWELLING UNITS 3		
BLDG PRIOR / PRESENT USE	COMMERCIAL	HOSPITAL	INDUSTRIAL	Other	OFFICE
	PUBLIC BLDG	HOUSE X	SCHOOL	SHIP	UNIV/COLLEGE
SITE OWNER Vogel Properties		ADDRESS 300 Paseo Tesoro			
CITY Walnut	STATE Ca	ZIP 91789	CONTACT Willaim Vogel	PHONE 909.598.7065	
REQUIRED BUILDING INFORMATION	ASBESTOS PRESENT? NO	[1]ASBESTOS SURVEY? YES	ASBESTOS REMOVED? NO	BUILDING TO BE DEMOLISHED? YES	
PROJECT DATES	START 7/7/08	END 7/8/08	WORK SHIFT (day)		
***ASBESTOS AMOUNT TO BE REMOVED** (in square feet)	FRIABLE	CLASS I	CLASS II	**TOTAL AMOUNT** 0	
***ASBESTOS REMOVAL FROM**	SURFACES	PIPES	COMPONENTS		
***AMOUNT OF EACH TYPE OF ASBESTOS** (in square feet)	ACOUSTIC CEILING	LINOLEUM	INSULATION	FIRE PROOFING	DUCTING
	STUCCO	MASTIC			
FLOOR TILES (VAT)	DRY WALL	PLASTER	TRANSITE	ROOFING	OTHER (describe)
CONTRACTOR INFORMATION	CSLB LICENSE # 884871	OSHA REG #	AQMD ID # 152664		
NAME Active Demolition		ADDRESS 2924 N Riverside Ave			
CITY Rialto	STATE Ca	ZIP 92377	SITE SUPVR Ty Payton	PHONE 909.286.3363	
WASTE TRANSPORTER #1		**LANDFILL Bad lands**			
ADDRESS 2924 N riverside Ave		ADDRESS 31125 Ironwood			

* Not required for demolition notifications

[1] asbestos surveys are required prior to Demolition and Renovation.

Forms, instructions, and the Rule 1403 can be obtained from AQMD web site http://www.aqmd.gov

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SCAQMD NOTIFICATION OF DEMOLITION OR ASBESTOS REMOVAL

MAIL FORM AND FEE TO SCAQMD, ASBESTOS NOTIFICATIONS, FILE # 55641, LOS ANGELES CA 90074-5641

WASTE TRANSPORTER #2			*** WASTE STORAGE SITE**		
ADDRESS			ADDRESS		
CITY	STATE	ZIP	CITY	STATE	ZIP

*** CONTROLS:** DESCRIBE WORK PRACTICES AND CONTROLS TO BE USED AT THE RENOVATION AND DEMOLITION SITE. Procedure # 1, 2, 3, 4, 5 or Other.

For asbestos removals circle the combination of Rule 1403 procedures used. Procedure 4 and 5 submit plans for AQMD prior approval (See procedure 4/5 guidelines)

*** ASBESTOS DETECTION PROCEDURE:** Circle the procedures and analytical methods used to determine the presence of asbestos in the building. Survey, Bulk Sampling, Inspection, PLM, PCM, TEM, Assumed as Asbestos-PACM, Describe Other (See survey guidelines checklist):

FOR **DEMOLITIONS** GIVE THE COMPANY NAME AND DATES OF THE ASBESTOS REMOVAL:

FOR **ORDERED DEMOLITION** SEND A COPY OF THE ORDER AND GIVE THE AGENCY NAME & PHONE #
AUTHORIZING PERSON: TITLE
DATE OF ORDER: DATE ORDERED TO BEGIN:

* FOR **EMERGENCY ASBESTOS REMOVAL** GIVE THE NAME AND PHONE NUMBER OF THE PERSON DECLARING/AUTHORIZING THE EMERGENCY, DATE AND HOUR OF EMERGENCY AND DESCRIBE THE SUDDEN, UNEXPECTED EVENT (***Disturbed /damaged asbestos requires a procedure 5 plan approval prior to clean-up***):

EXPLAIN HOW THE EVENT WOULD CAUSE UNSAFE CONDITIONS, EQUIPMENT DAMAGE OR UNREASONABLE FINANCIAL BURDEN:

CONTINGENCY PLAN: DESCRIBE ACTIONS TO BE FOLLOWED IF UNEXPECTED ASBESTOS IS FOUND DURING DEMOLITION OR ASBESTOS MATERIAL BECOME DISTURBED, CRUMBLED, PULVERIZED, OR REDUCED TO POWDER. (***Disturbed /damaged asbestos requires a procedure 5 plan approval prior to clean-up***):
Stop work and contact site super visior

*** TRAINING CERTIFICATION:** I certify that an individual trained in the provisions of regulation AQMD Rule 1403 and NESHAP will be on site during the removal and evidence that the required training has been accomplished by this person will be available for inspection during normal business hours.

Company Name Active Demolition	Print name of owner/operator	Signature of owner/operator	Tittle of owner/operator	Date6/20/08
	Tyrell Taylor		Owner	

INFORMATION CERTIFICATION: I certify that the above information is correct and I have enclosed any required attachments.

Company Name Active Demolition	Print name of owner/operator	Signature of owner/operator	Tittle of owner/operator	Date6/20/08
	Tyrell Taylor		Owner	

Notifications can not be accepted without the required fee (Rule 301). Asbestos removals of less than 100 square feet are exempt from notification and fees. Please make checks payable to "SCAQMD". Fees are per notification, not refundable, and vary according to the project size. Fees are as follows:

PROJECT SIZE in square feet	DEMOLITION OR REMOVAL
1,000 or less	$ 47.32
1,001 to 5,000	$ 144.68
5,001 to 10,000	$ 338.64
10,001 to 50,000	$ 531.01
50,001 to 100,000	$ 769.56
100,001 or more	$ 1,282.60

ADDITIONAL SERVICE CHARGES	
Special Handling Fee	$ 47.32
Revision to Notification	$ 47.32
Returned Check Fee	$ 25.00
Planned Renovation	$ 531.01
Procedure 4 or 5 Plan	$ 531.01

ATTENTION: Keep a copy of your notification. State law requires that you provide a copy of the demolition notification to Building and Safety before issuance of a demolition permit. For questions call 909-396-2336. Please mail the form and fee to AQMD. Mailing saves time, money and reduces traffic and air pollution

MAIL FORM AND FEE TO: SCAQMD, ASBESTOS NOTIFICATIONS, FILE # 55641, LOS ANGELES CA 90074-5641

FORMS, INSTRUCTIONS, AND THE RULE 1403 CAN BE OBTAINED FROM AQMD WEB SITE AT HTTP://WWW.AQMD.GOV

SCAQMD is located at 21865 Copley Drive, Diamond Bar, CA 91765-4182 **PHONE: (909) 396-2336 FAX: (909) 396-3342**

REV09/27/07

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CITY Rialto	STATE ca	ZIP 92377	CITY Moreno Valley	STATE Ca	ZIP

* Not required for demolition notifications

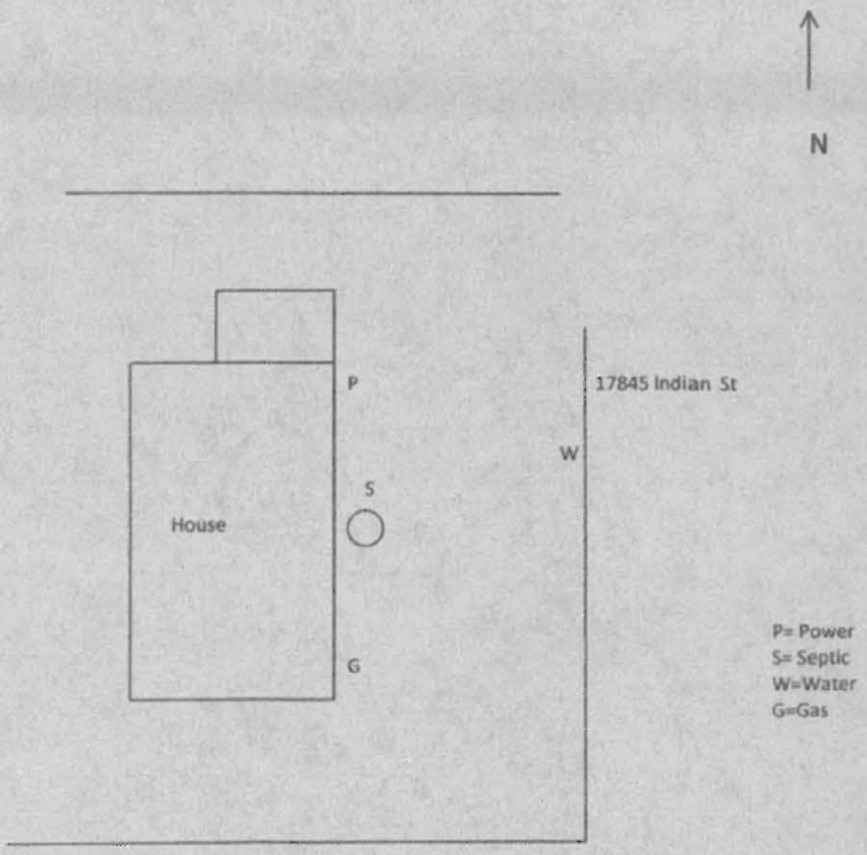
[1] asbestos surveys are required prior to Demolition and Renovation.

Forms, instructions, and the Rule 1403 can be obtained from AQMD web site http://www.aqmd.gov

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

17845 Indian st

Monday, July 07, 2008
8:28 AM



Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

SCOTT MORRISON & ASSOCIATES

P.O. Box 55329
Riverside, CA 92517
(909) 624-1665

31855 Date Palm Drive, Ste. 3 #507
Cathedral City, CA 92234
(760) 323-7743

ASBESTOS SURVEY REPORT
Completed On
June 12, 2008
PLM 0605#1301

Client: Active Demolition
Attn: Ty Payton
2924 N. Riverside Ave.,
Rialto, CA 92377

Project: 17845 Indian Street,
Moreno Valley, CA.

On June 05, 2008 an asbestos inspection and bulk sampling was conducted at the above project address. Bulk samples were taken of all suspect asbestos containing building materials (ACBM) at the request of the client named above. A total of (14) bulk samples were submitted to Carolina Environmental, Inc. located at: 107 New Edition Court in Cary, NC (NVLAP Code 101768-0 and Cal. Environ. Lab. Cert. #2483) to estimate the percentage of asbestos by volume and determine the type(s) present.

Carolina Environmental, Inc. determines percentages and type of asbestos by using EPA approved method 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Samples. Bulk samples are analyzed by PLM (Polarized Light Microscopy). Asbestos is quantified using the visual arena estimation technique and can only determine the approximate percentage of asbestos present.

After a thorough search is conducted and no asbestos is detected "none detected' will be noted in the report. The essence of polarized light microscopy is not to emphatically determine that no asbestos is present, merely that none was detected or, if it was, it was likely to be less than 1.0% of the sample.

When findings reveal less than or close to 1.0% asbestos contained in a sample, further analysis may be called for on additional samples to confirm or denounce the initial findings. The California Code of Regulations (CCR 1529) requires bulk sampling to be conducted according to the A.H.E.R.A. protocol provisions of 40 CFR Part 763.86. The A.H.E.R.A. protocol recommends three (3) or more friable surfacing samples from a homogenous area be collected and analyzed before any building material is determined to be non-asbestos containing. Scott Morrison & Associates conducts asbestos inspection surveys following the A.H.E.R.A. inspection protocol.

ASBESTOS INSPECTION BY: Scott C. Morrison, DOSH # 92-0248
BULK SAMPLES ANALYZED BY: Carolina Environmental, Inc., NVLAP # 101768-0

The results on the following page(s) indicate that asbestos (greater than 1.0%) was detected in (0) of the (14) samples analyzed.

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SCOTT MORRISON & ASSOCIATES

P.O. Box 55329
Riverside, CA 92517
(909) 624-1665

31855 Date Palm Drive, Ste. 3 #507
Cathedral City, CA 92234
(760) 323-7743

PLM0605#1301

Sample # IN-01 Friable: Yes	Type of material: acoustic spray/ white Location: east entrance room Area: approx. 1,470 sq. ft. (total acoustic spray within building) Results: none detected
Sample # IN-02 Friable: No	Type of material: drywall Location: east entrance room ceiling Area: throughout interior wall Results: none detected
Sample # IN-03 Friable: Yes	Type of material: acoustic spray/ white Location: north east room Area: approx. 1,470 sq. ft. (total acoustic spray within building) Results: none detected
Sample # IN-04 Friable: No	Type of material: drywall Location: interior north wall Area: throughout interior wall Results: none detected
Sample # IN-05 Friable: No	Type of material: linoleum flooring/ tan-brown Location: north west entrance room Area: approx. 100 sq. ft. Results: none detected
Sample # IN-06 Friable: No	Type of material: mastic/ white Location: north west entrance room Area: approx. 100 sq. ft. Results: none detected
Sample # IN-07 Friable: No	Type of material: leveling compound Location: north west entrance room Area: approx. 100 sq. ft. Results: none detected
Sample # IN-08 Friable: No	Type of material: linoleum flooring/ white Location: north west closet Area: approx. 20 sq. ft. Results: none detected

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P.O. Box 55329
Riverside, CA 92517
(909) 624-1665

31855 Date Palm Drive, Ste. 3 #507
Cathedral City, CA 92234
(760) 323-7743

PLM0605#1301

Sample # IN-09 Friable: No	Type of material: linoleum flooring/ tan-white Location: south west corner of north west room – under the carpet Area: approx. 25 sq. ft. Results: none detected
Sample # IN-10 Friable: No	Type of material: mastic/ yellow-brown Location: south west corner of north west room – under the carpet Area: approx. 25 sq. ft. Results: none detected
Sample # IN-11 Friable: Yes	Type of material: acoustic spray/ white Location: south east bedrooms Area: approx. 1,470 sq. ft. (total acoustic spray within building) Results: none detected
Sample # IN-12 Friable: No	Type of material: textured wall material Location: north east garage – west room interior wall Area: approx. 260 sq. ft. (approx. 20% localized damage) Results: none detected
Sample # IN-13 Friable: No	Type of material: textured ceiling Location: north east garage – west room interior wall Area: approx. 142.5 sq. ft. Results: none detected
Sample # IN-14 Friable: No	Type of material: rolled roofing/ brown Location: south east garage Area: approx. throughout garage roof Results: none detected

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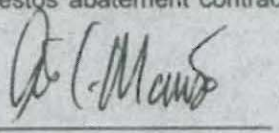
P.O. Box 55329
Riverside, CA 92517
(909) 624-1665

31855 Date Palm Drive, Ste. 3 #507
Cathedral City, CA 92234
(760) 323-7743

PLM0605#1301

Note: There is approx. 25% distributed damage to the acoustic spray within the building and the debris is scattered throughout the house.

Note: All asbestos containing building material(s) containing greater than 1.0% asbestos by volume or weight, must be removed by a state certified asbestos abatement contractor prior to any demolition or renovation of the property.

Inspector 

Scott C Morrison
Certified Asbestos Consultant
DOSH#92-0248

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CAROLINA ENVIRONMENTAL, INC.
107 New Edition Court, Cary, NC 27511
Phone: (919) 481-1413 Fax: (919) 481-1442

LABORATORY REPORT
ASBESTOS BULK ANALYSIS

Client: Scott Morrison

31855 Date Palm Dr. Suite 3-507
Cathedral City , CA 92234

Project: PLM 0605 #1301

CEI Lab Code: A08-5434
Received: 06-09-08
Analyzed: 06-11-08
Reported: 06-11-08
Analyst: Anna Malmberg

The following definitions apply to the abbreviations used in the ASBESTOS BULK ANALYSIS REPORT:

CHRY = Chrysotile	CELL = Cellulose	DEBR = Debris
AMOS = Amosite	FBGL = Fibrous Glass	BIND = Binder
CROC = Crocidolite	CACO = Calcium Carbonate	SILI = Silicates
TREM = Tremolite	SYNT = Synthetics	GRAV = Gravel
ANTH = Anthophyllite	WOLL = Wollastonite	MAST = Mastic
ACTN = Actinolite	CERWL = Ceramic Wool	PLAS = Plaster
N D = None Detected	NTREM = Non-Asbestiform Tremolite	PERL = Perlite
NANTH = Non-Asbestiform Anthophyllite	FBGY = Fibrous Gypsum	RUBR = Rubber
		VER = Vermiculite

Stereoscopic microscopy and polarized light microscopy coupled with dispersion staining is the analytical technique used for sample identification. The percentage of each component is visually estimated by volume. These results pertain only to the samples analyzed. The samples were analyzed as submitted by the client and may not be representative of the larger material in question. Unless notified in writing to return samples, Carolina Environmental, Inc. will discard all bulk samples after 30 days.

Many vinyl floor tiles have been manufactured using greater than 1% asbestos. Often the asbestos was milled to a fiber size below the detection limit of polarized light microscopy. Therefore, a "None Detected" (ND) reading on vinyl floor tile does not necessarily exclude the presence of asbestos. Transmission electron microscopy provides a more conclusive form of analysis for vinyl floor tiles.

It is certified by the signature below that Carolina Environmental, Inc. is accredited by the National Voluntary Accreditation Program (NVLAP) for the analysis of asbestos in bulk materials. The accredited test method is EPA / 600 / M4-82 / 020 for the analysis of asbestos in building materials. Procedures described in EPA / 600 / R-93 / 116 have been incorporated where applicable. The detection limit for the method is 0.1% (trace amount). Carolina Environmental, Inc.'s NVLAP accreditation number is #101768-0. This report is not to be used to claim product endorsement by NVLAP or any agency of the U. S. Government. This report and its contents are only valid when reproduced in full. Dust and soil analyses for asbestos using PLM are not covered under NVLAP accreditation.

ANALYST
Anna Malmberg

REVIEWED BY
Tianbao Bai, Ph.D.
Laboratory Director

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CAROLINA ENVIRONMENTAL, INC.
107 New Edition Court, Cary, NC 27511
Phone: 919-481-1413 Fax: 919-481-1442

Project: PLM 0605 #1301

Lab Code: A08-5434

CLIENT ID	CEI LAB ID	HOMOGENEITY DESCRIPTION	% ASBESTOS
IN-01	A792504	ACOUSTIC SPRAY Heterogeneous, Off-white, Fibrous, Bound CACO 60 % CELL <1 % FOAM 20 % PAINT 20 %	ND
IN-02	A792505	DRYWALL/JOINT COMPOUND Heterogeneous, Off-white, Tan, Fibrous, Bound GYPSUM 75 % CELL 20 % CACO 5 %	ND
IN-03	A792506A	ACOUSTIC SPRAY Heterogeneous, Off-white, Non-fibrous, Bound CACO 60 % CELL <1 % FOAM 20 % PAINT 20 %	ND
	A792506B	DRYWALL Heterogeneous, Off-white, Tan, Fibrous, Bound GYPSUM 80 % CELL 20 %	ND
IN-04	A792507	DRYWALL Heterogeneous, Off-white, Tan, Fibrous, Bound GYPSUM 80 % CELL 20 %	ND
IN-05	A792508	LINOLEUM Heterogeneous, Tan, Brown, Fibrous, Bound VINYL 40 % CELL 25 % BIND 25 % FBGL 10 %	ND
IN-06	A792509	MASTIC Heterogeneous, Off-white, Fibrous, Bound MAST 95 % CELL 3 % MICA 2 %	ND

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CAROLINA ENVIRONMENTAL, INC.
107 New Edition Court, Cary, NC 27511
Phone: 919-481-1413 Fax: 919-481-1442

Project: PLM 0605 #1301

Lab Code: A08-5434

CLIENT ID	CEI LAB ID	HOMOGENEITY DESCRIPTION	% ASBESTOS
IN-07	A792510	LEVELING COMPOUND	ND
	Homogeneous,	Grey, Non-fibrous, Bound	
		PLAS 100 % CELL <1 %	
IN-08	A792511	LINOLEUM	ND
	Heterogeneous,	White, Grey, Fibrous, Bound	
		VINYL 40 % CELL 25 %	
		BIND 25 % FBGL 10 %	
IN-09	A792512	LINOLEUM	ND
	Heterogeneous,	White, Tan, Fibrous, Bound	
		VINYL 40 % CELL 25 %	
		BIND 25 % FBGL 10 %	
IN-10	A792513	MASTIC	ND
	Heterogeneous,	Tan, Fibrous, Bound	
		MAST 95 % CELL 3 %	
		MICA 2 %	
IN-11	A792514	ACOUSTIC SPRAY	ND
	Heterogeneous,	Off-white, Tan, Fibrous, Bound	
		CACO 50 % CELL 20 %	
		FOAM 20 %	
		PAINT 10 %	
IN-12	A792515	TEXTURE	ND
	Heterogeneous,	Tan, White, Fibrous, Bound	
		CACO 60 % CELL 20 %	
		PAINT 10 %	
		MICA 10 %	
IN-13	A792516	TEXTURE	ND
	Heterogeneous,	White, Fibrous, Bound	
		CACO 65 % CELL 20 %	
		PAINT 10 %	
		PERL 5 %	

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CAROLINA ENVIRONMENTAL, INC.
107 New Edition Court, Cary, NC 27511
Phone: 919-481-1413 Fax: 919-481-1442

Project: PLM 0605 #1301

Lab Code: A08-5434

CLIENT ID	CEI LAB ID	HOMOGENEITY DESCRIPTION	% ASBESTOS
IN-14	A792517	ROOFING	ND
	Heterogeneous,	Black, Brown, Fibrous, Bound	
		TAR 55 % FBGL 35 %	
		GRAV 10 %	

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CHAIN OF CUSTODY

AOS 5434 (14)
A 792504. A 792517

From: Scott Morrison & Associates
P.O. Box 55329
Riverside, CA 92517
(760) 323-7743

To: Carolina Environmental, Inc.
107 New Edition Court
Cary, NC 27511
(919) 481-1413
NVLAP Code 101768-0 CA ELAP #2483

Client: Active Drainage Person Taking Samples: Scott Morrison

Job No. PLM0605A1301 Site Address: 17845 Indian St, Moreno Valley, CA

Sample #	Sample Date	Material & Description	(PLM) / AA-Pb	Other Information
IN-01	06/05/08	ACOUSTIC SPRAY / WHITE		48 hr turnaround
IN-02		DRYWALL		
IN-03		ACOUSTIC SPRAY / WHITE		
IN-04		DRYWALL		
IN-05		LINOLEUM FLOOR / TAN-BROWN		
IN-06		MASTIC / WHITE		
IN-07		LEVELING COMPOUND		
IN-08		LINOLEUM FLOOR / WHITE		
IN-09		LINOLEUM FLOOR / TAN-WHITE		
IN-10		MASTIC / YELLOW-BROWN		
IN-11		ACOUSTIC SPRAY / WHITE		
IN-12		TEXTURED WALL MATERIAL		
IN-13		TEXTURED CEILING MATERIAL		
IN-14	↓	TILED ROOFING / BROWN		

Fax in Results ? _____ Yes _____ No

Relinquished By: Scott Morrison Date/Time: 06/06/08 Received By: Melissa Kirkland Date/Time: 6/9/08 1:30 PM

Mail/Fax To: Scott Morrison & Asociates, 31855 Date Palm Dr., Ste. #3-507, Cathedral City, CA 92234, (760) 323-7743

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

17845 Indian Street
17845 Indian Street
Moreno Valley, CA 92551

Inquiry Number: 4346403.5
July 10, 2015

The EDR-City Directory Image Repor



Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

TABLE OF CONTENTS

SECTION

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Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2013	☑	☐	Cole Information Services
2008	☑	☐	Cole Information Services
2003	☑	☐	Cole Information Services
1999	☑	☐	Cole Information Services
1995	☑	☐	Cole Information Services
1990	☑	☐	Haines Criss-Cross Directory
1985	☐	☐	Haines Criss-Cross Directory
1980	☐	☐	Haines Criss-Cross Directory
1975	☐	☐	Haines Criss-Cross Directory

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Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

FINDINGS

TARGET PROPERTY STREET

17845 Indian Street
Moreno Valley, CA 92551

Year	CD Image	Source	
INDIAN ST			
2013	pg A1	Cole Information Services	
2008	pg A2	Cole Information Services	
2003	pg A3	Cole Information Services	
1999	pg A4	Cole Information Services	
1995	pg A5	Cole Information Services	
1990	pg A6	Haines Criss-Cross Directory	
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

FINDINGS

CROSS STREETS

No Cross Streets Identified

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

City Directory Images

Target Street	Cross Street	Source
✓	-	Cole Information Services

INDIAN ST 2013

16059	IMANI PRAISE FELLOWSHIP
16171	CONNIE LEMAY
16180	OCCUPANT UNKNOWN
16220	OCCUPANT UNKNOWN
16275	FRANCISCO BURROLA
16410	OCCUPANT UNKNOWN
16950	GUILLERMINA HERNANDEZ
16980	RICHARD DNARVARTE
17325	ADRIANA MORA
17700	CLEAN ENERGY
	WASTE MANAGEMENT
17731	OCCUPANT UNKNOWN

E.2

Target Street	Cross Street	Source
✓	-	Cole Information Services

INDIAN ST 2008

16171	CONNIE LEMAY
16180	ADAM VILLARREAL
16220	O PIERCE
16275	ELIZABETH CORTEZ
16410	WILLIAM VACA
16958	RICHARD DNARVARTE
17325	DELORES MORA
17700	WASTE MANAGEMENT
17731	LORRAINE GRIPPIN
	ZODON EXPRESS
17845	H SUH

E.2

Target Street	Cross Street	Source
✓	-	Cole Information Services

INDIAN ST 2003

16059	VALLEY VISTA SVNTH DAY ADVNTST
16180	FRANCIS FOX
16220	OCCUPANT UNKNOWN
16275	FRANCISCO BURROLA
16311	OCCUPANT UNKNOWN
16410	OCCUPANT UNKNOWN
16550	OCCUPANT UNKNOWN
16950	FRANCISCO MONTEJANO
16958	FERNANDEZ RIVERA
16980	CLIFFORD STOUT
17325	LUIS MORA
17700	WASTE MANAGEMENT
17731	OCCUPANT UNKNOWN
	ZODON EXPRESS
17845	BARRY ENGELIMETER
	OCCUPANT UNKNOWN

E.2

Target Street	Cross Street	Source
✓	-	Cole Information Services

INDIAN ST 1999

16059 VALLEY VISTA SEVENTH DAY ADVENTIST CHURCH
16171 CONNIE LEMAY
16220 O PIERCE
16275 FRANCISCO BURROLA
16410 OCCUPANT UNKNOWN
16950 FRANCISCO MONTEJANO
OCCUPANT UNKNOWN
16958 RICHARD DNARVARTE
16980 OCCUPANT UNKNOWN
17325 DELORES MORA
17700 MORENO VALLEY MATERIAL RECOVERY FACILITY
17731 CALIFORNIA EASTERN
LANDSTAR RANGER
LORRAINE GRIPPIN
ZODON EXPRESS
17845 H SUH

E.2

Target Street	Cross Street	Source
✓	-	Cole Information Services

INDIAN ST 1995

16171 CAPERON, M
16950 DIAZ, D
17525 OCCUPANT UNKNOWNN
17731 CALIFORNIA EASTERN
WADE, BRAD
ZODON EXPRESS
17845 SEARS, D

E.2

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

INDIAN ST 1990

..INDIAN AV 92388 CONT..

16311	PUTMAN Carol	924-1070	
	PUTMAN Darryl	924-1070	
16410	VACA Olga M	00	
16550	XXXX	00	
16700	★MCCLELLAN DEVLP	924-9774	9
16958	STOUT Richard C	00	5
17069	XXXX	00	
17235	WILSON Cathleen P	00	4
17325	WELLIVER Jack	00	4
17375	STEM Don G	00	5
17731	WADE Steven B	00	7
17845	PEDERSEN Florence C	00	7
17911	XXXX	00	

★ 19 BUS 127 RES 16 NEW

17845 Indian Street
17845 Indian Street
Moreno Valley, CA 92551

Inquiry Number: 4346403.4
July 07, 2015

EDR Historical Topographic Map Report

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

6 Armstrong Road, 4th Flo
Shelton, Connecticut 0648
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

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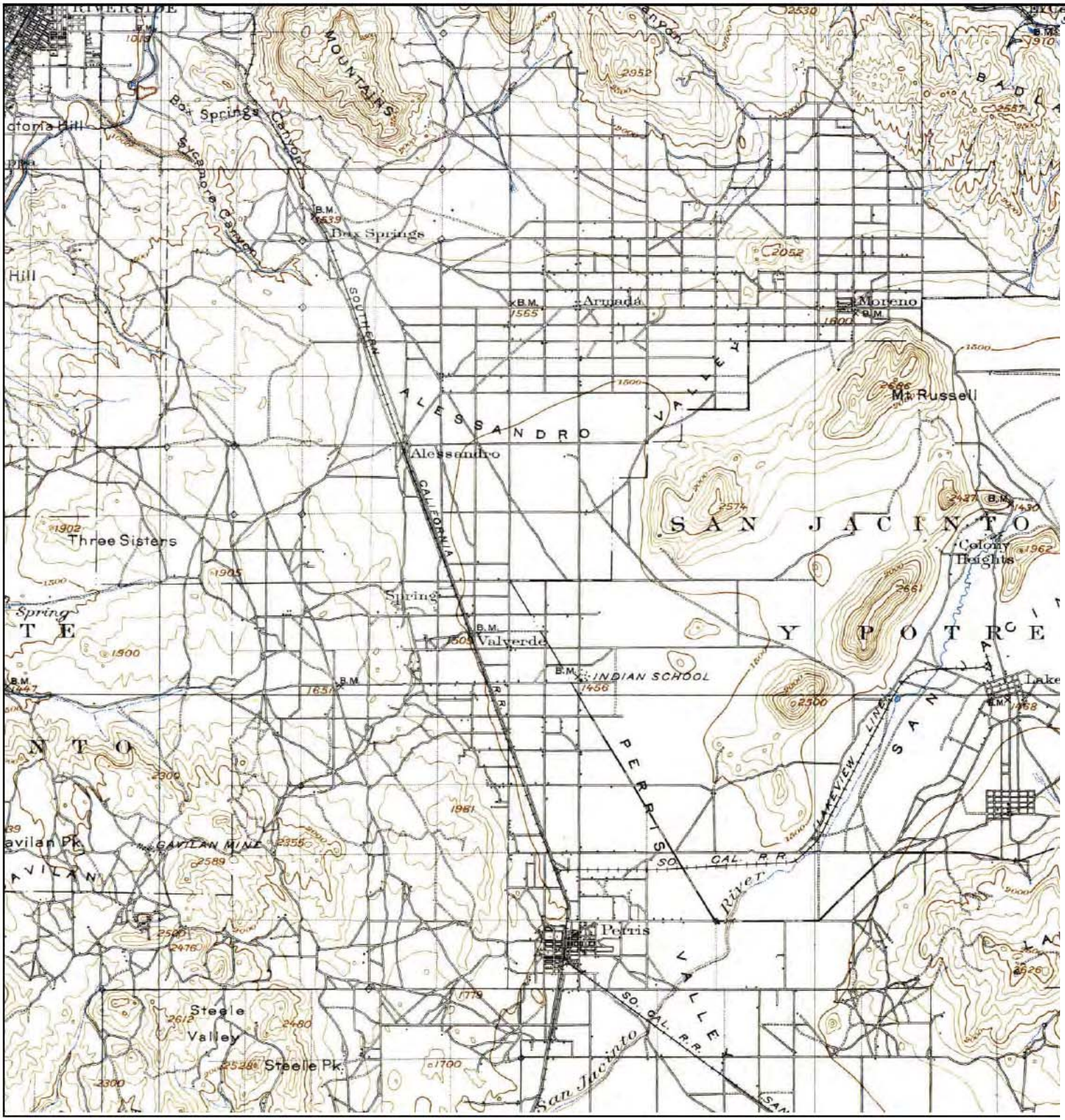
Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Historical Topographic Map



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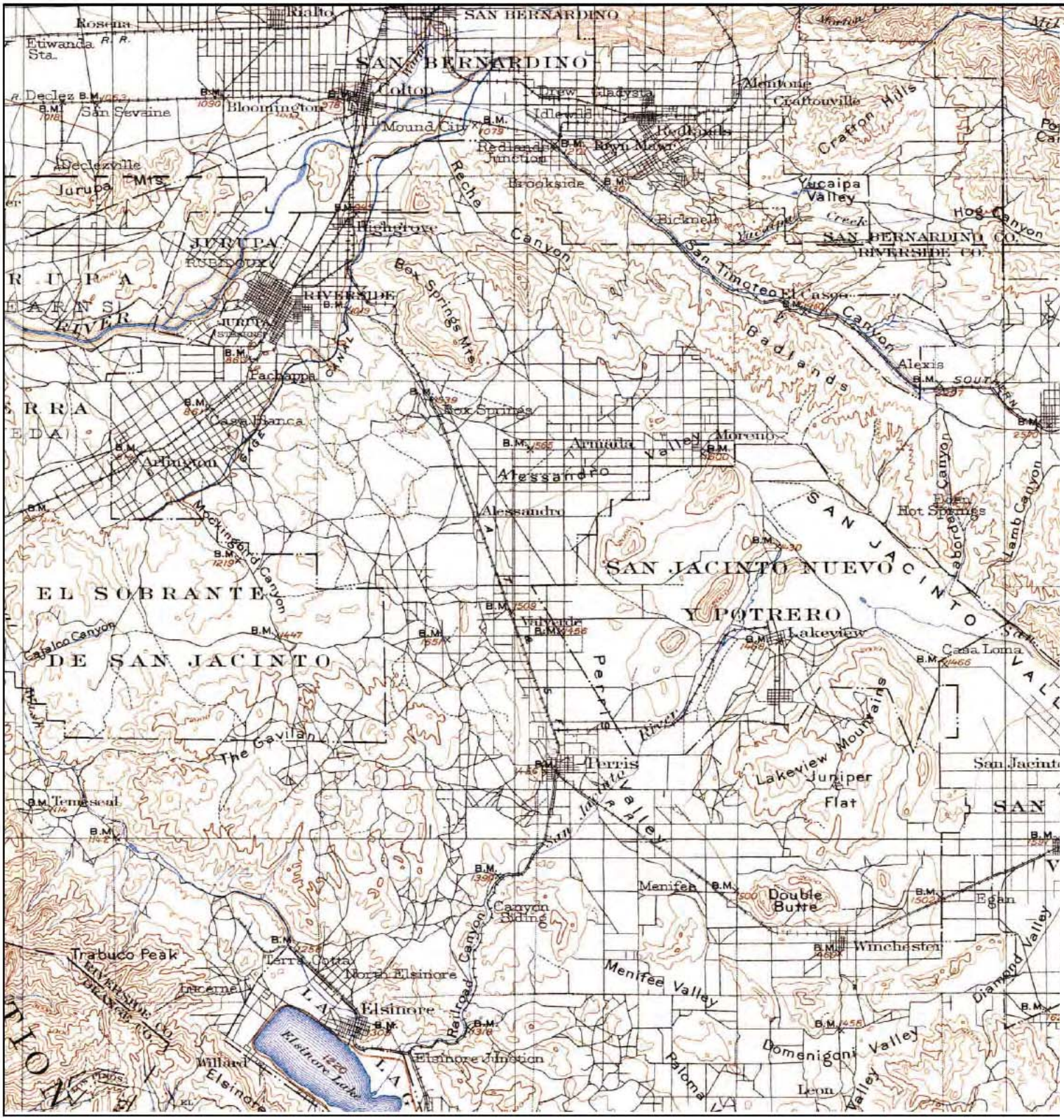

N	TARGET QUAD	SITE NAME:	17845 Indian Street	CLIENT:	Ardent Environmental Group
	NAME: SOUTHERN CA SHEET 1	ADDRESS:	17845 Indian Street Moreno Valley, CA 92551	CONTACT:	Dennis Kawasaki
	MAP YEAR: 1901	LAT/LONG:	33.8618 / -117.237	INQUIRY#:	4346403.4
	SERIES: 60			RESEARCH DATE:	07/07/2015
	SCALE: 1:250000				

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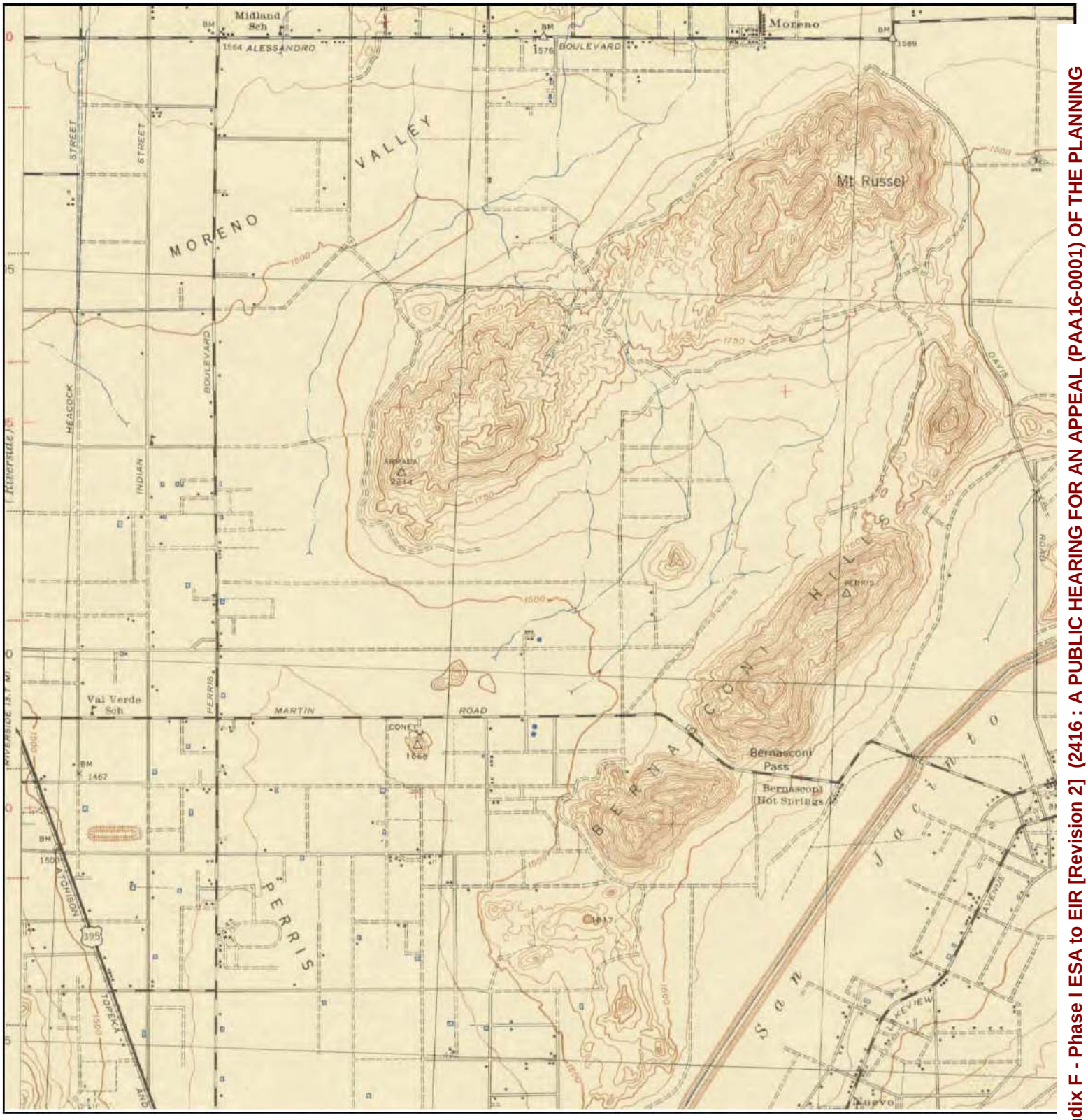

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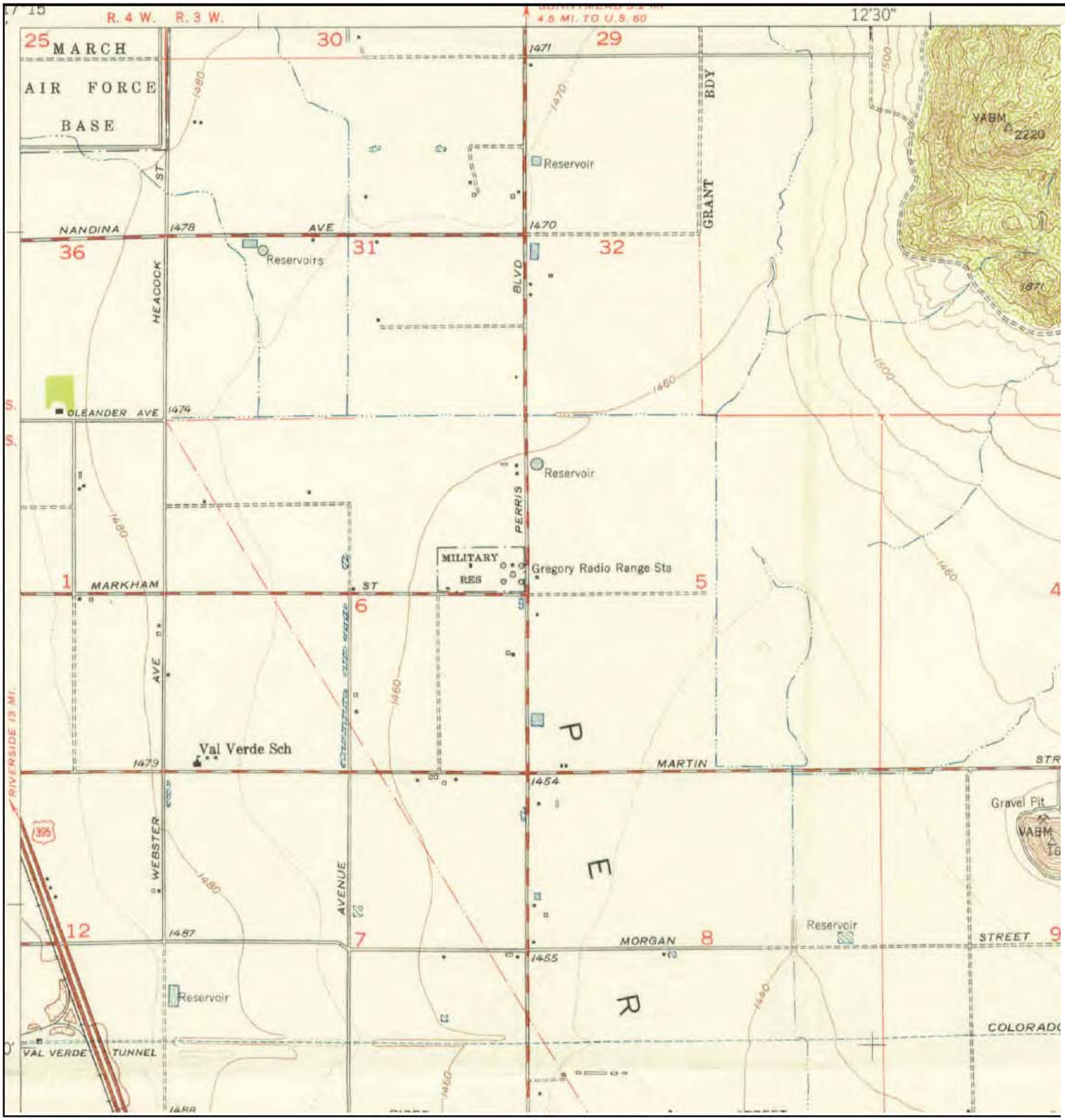

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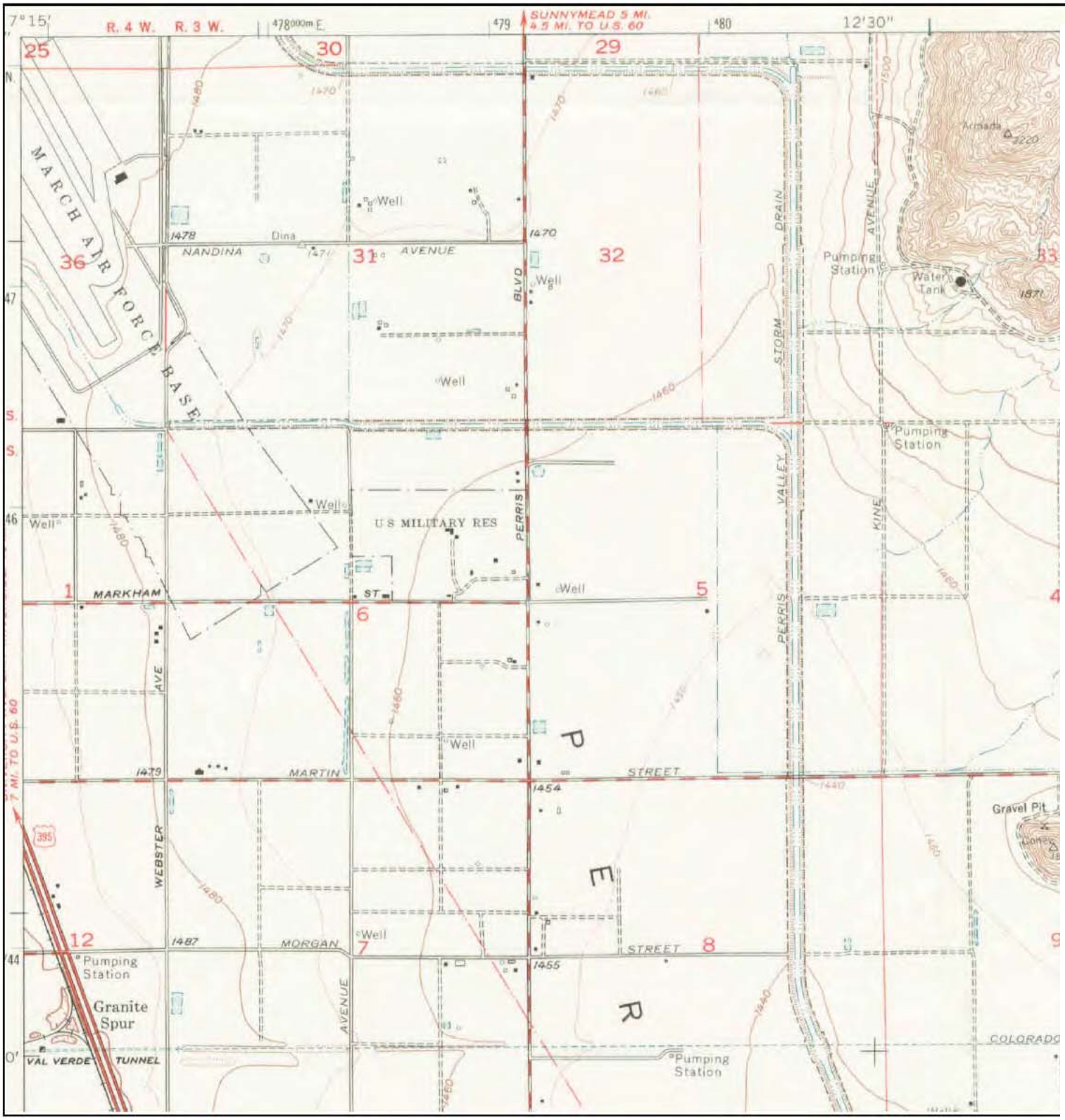

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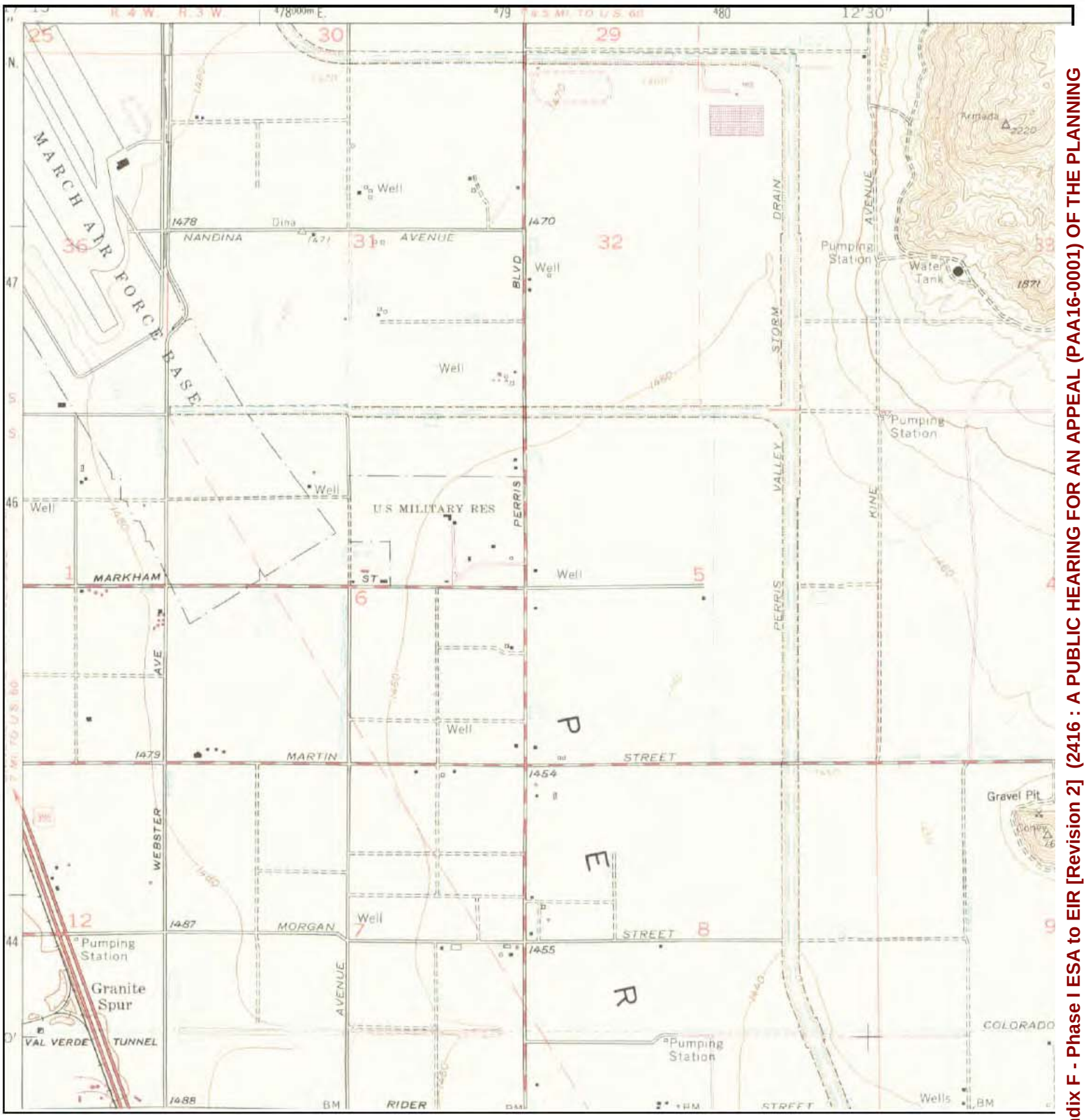

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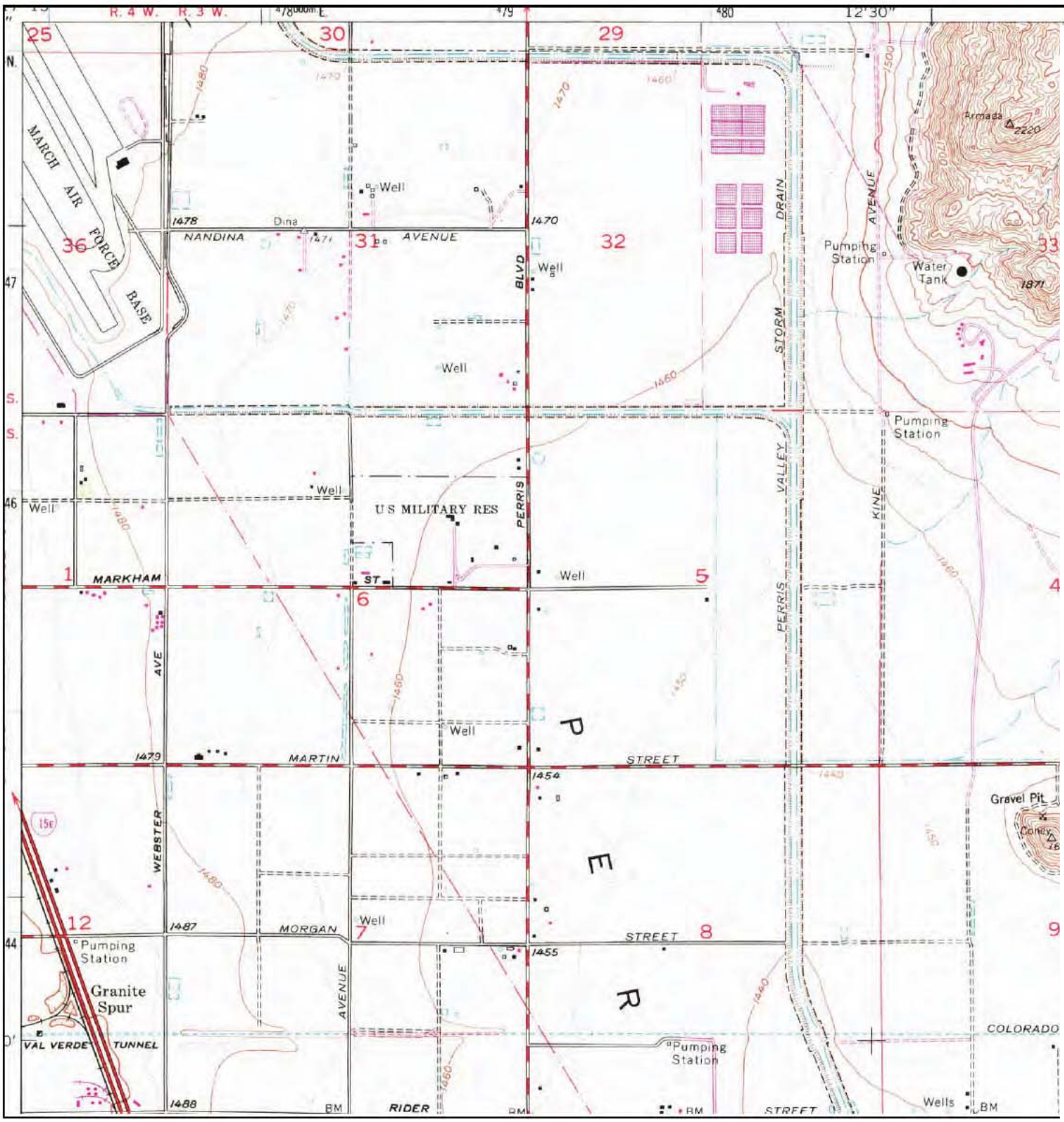

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APPENDIX D

PREVIOUS ENVIRONMENTAL REPORTS

CENTEC engineering

Environmental Assessments and Solutions

4299 MacArthur Blvd. Suite 107 • Newport Beach, CA 92660

(949) 476-8922 • FAX (949) 474-3222

March 4, 2011

Mr. William D. Vogel, President
VOGEL PROPERTIES, INC.
300 Paseo Tesoro
Walnut, CA 91789

Re: **EXECUTIVE SUMMARY** - Phase I Environmental Assessment of
17845 Indian Street
Moreno Valley, California 92551
Centec Project #0211011

Dear Mr. Vogel:

Centec Engineering has completed the Phase I Environmental Assessment for the above-referenced property. Bound copies of the report are included for your use.

This assessment has revealed no evidence of a Recognized Environmental Condition (REC) associated with the subject property, four contiguous, basically level rectangular-shaped parcels totaling 19.42 acres, located at 17845 Indian Street, Moreno Valley 92551. These conclusions have been reached for the following reasons:

1) The subject property, consisting of four rectangular parcels totaling 19.42 acres, appears to have undergone disking for weed control prior to the rainy season, based on the track marks somewhat visible through the very healthy-appearing grasses and weeds on-site. The southeastern parcel, which has the address of 17845 Indian Street, was occupied by a single-family residence and out-buildings as well as what may have been a pond. The house was demolished in 2008, and there is only an area of gravel where the house apparently had been. There is also a pile of apparent telephone and/or electrical poles near the driveway for the former building. The pond area has water from the recent rain events, and there are "ponds" and small streams in various parts of the subject property because of the heavy rain events. The southwest parcel has 11 mature-appearing trees on-site, and a gravel-paved road runs along the southern perimeter of both southerly parcels. At the southwest corner of the southwestern parcel, someone has abandoned a sofa, and there is also a pile of clothing. The western side of the subject property is apparently defined by an earthen berm separating the subject property from what appears to be small recharge basin, and flow-way for rain runoff. The balance of the property is mostly clear of large debris, although trash has been thrown over the fence from the property to the north onto the subject property, and some sort of large plastic container is in pieces along the southern boundary, adjacent to the neighboring parking lot. There is a dirt road forming the boundary between the western and eastern parcels. No stains

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CENTEC engineering
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noted on this road, although there is a "pond" on it just south of a small dogleg in the road. There are no indications of USTs, hazardous materials or wastes, significant staining, stressed vegetation, or other significant issues of environmental concern noted on the property.

2) According to historical aerial photographs, research on nearby properties completed by Centec in 2004 and 2007, information from the City of Moreno Valley as well as an interview with Mr. William Vogel, the owner of the southeast parcel of the subject property, the southeastern parcel had been developed between 1967 and 1978 with a single-family residence and several out-buildings. These structures were demolished in 2008, and all underground structures were apparently also removed (including electrical and septic systems). It appears that the southwestern parcel also was under sod agriculture and the extant trees appear to have been planted after 1978. The two northern parcels appear to have been under sod agriculture. Although herbicides, fungicides, and fertilizers may have been used at the subject property in the course of growing the sod, no records of hazardous materials incidents were located. The normal use of these approved materials does not suggest a significant environmental concern.

3) There is no evidence of PCB-containing transformers or current or former underground storage tanks on the property. The lack of buildings precludes the possibility of asbestos in building materials. (An asbestos survey was completed at the residence prior to the demolition. The laboratory analyses found no detectable asbestos in any of the 14 samples submitted for analysis.) There were no records of incidents located involving hazardous materials at the subject property.

4) A review of adjacent properties indicated little evidence for serious concern. None of the adjacent properties appear to have underground storage tanks, are listed on public records reviewed as a known source of contamination, or appear to present an imminent threat of impairment to the subject property. The neighbor to the north is a storage lot for Design Space Modular buildings, as well as parking for trucks and trailers and a single-family residence with barn and some other out-buildings. The land to the east and west is undeveloped, and the southern neighbor is I Herbs, which distributes vitamins and herbal supplements in a newly-constructed building, and may manufacture the products on-site.

5) Our review of known cases of contamination found within a one-mile radius of the subject property found no reasons to suspect off-site sources of contamination are likely to adversely impact the subject property. Other than the waste transfer facility across the intersection of Indian Street and Grove View Road to the northeast, which reported a possible spill of household hazardous

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waste in 1996, and a proposed school site beyond one mile to the southwest, the only site listed is the March Air Force Base. The 7,000-acre Base is an identified state and NPL "Superfund" site for various sources of soil and groundwater contamination from its decades as a military base. Its southeasterly corner is located 2,000 feet west of the subject property. Although it may be possible that groundwater below or near the subject property may be adversely impacted by the contaminants emanating from the Base, this is not considered likely since most of the contaminated areas are well west and northwest of the subject property, and off-site migration of wastes is apparently only an issue of concern along the western boundary of the Base. Remedial actions are proceeding at the Base under local and federal control to mitigate the effects of the various contaminants, including petroleum hydrocarbons, volatile organic compounds such as TCE and PCE, heavy metals, and others. There are no current or historical indications that would suggest activities at the subject property would implicate it with the contamination caused by March Air Force Base.

This assessment has identified no Recognized Environmental Conditions associated with the subject property, and Centec therefore concludes there is very little risk of environmental impairment with this property. No further investigations are recommended. Vogel Properties, Inc. and its lender and assigns may rely on the information contained in the report as being accurate and thorough subject to the limitations detailed in the report. If you should have any questions whatsoever regarding the report, please feel free to contact me directly.

Sincerely,
CENTEC ENGINEERING, INC.

Steven Collins

REGISTERED ENVIRONMENTAL ASSESSOR
STEVEN N. COLLINS
No. 04394
Exp. June 30, 2011
STATE OF CALIFORNIA

Steven N. Collins, REA
Principal
Project Manager

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PHASE I

ENVIRONMENTAL ASSESSMENT

PREPARED FOR

17845 INDIAN STREET

MORENO VALLEY, CALIFORNIA 92551

MARCH 4, 2011

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PHASE I

ENVIRONMENTAL ASSESSMENT

FOR THE EVALUATION OF

POTENTIALLY HAZARDOUS MATERIALS

- For property located at -

17845 INDIAN STREET

MORENO VALLEY, CALIFORNIA 92551

CENTEC PROJECT #0211011

- Prepared for -

VOGEL PROPERTIES, INC.

- Prepared by -

CENTEC ENGINEERING, INC.
4299 MacArthur Boulevard, Suite 107
Newport Beach, CA 92660
(949) 476-8922
Steven N. Collins, President

March 4, 2011

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INTRODUCTION

Centec Engineering is pleased to submit the following information in response to authorization by Vogel Properties, Inc. to provide a Phase I Environmental Assessment for 17845 Indian Street, Moreno Valley, California. The scope of services authorized includes a preliminary environmental assessment of the property in order to identify any Recognized Environmental Conditions (as defined by ASTM E1527-05). The results of this study are based on information obtained from the following sources:

- Visual inspection of the property and adjacent areas
- Track Info Services, LLC, "Environmental FirstSearch Report," November 30, 2009
- City of Moreno Valley Building Department
- City of Moreno Valley Planning Department
- City of Moreno Valley Public Works Department
- Riverside County Building Department
- Riverside County Health Services Agency, Department of Environmental Health
- Riverside County Flood Control District Historical Aerial Photograph Collection
- Riverside County Assessor's Office
- historicaerials.com
- South Coast Air Quality Management District
- California Environmental Protection Agency, Dept. of Toxic Substances Control
- California Water Quality Control Board - Santa Ana Region
- California Waste Management Board
- California Department of Conservation - Division of Oil & Gas
- California Division of Mines & Geology
- California Governor's Office of Planning & Research
- United States Environmental Protection Agency

A list of specific agencies and individuals contacted is included in Table 1 in the Appendix.

The scope of work for this assessment did not include testing of electrical equipment for the potential presence of PCBs or collection of environmental samples. The scope of work did not include an assessment of natural hazards such as naturally occurring asbestos, radon gas or methane gas, an assessment for the potential release of radio nuclides, an assessment of non-chemical hazards such as the potential for damage from earthquakes or floods, or an assessment of the presence of endangered species or wildlife habitats. This Phase I Environmental Assessment also did not include an extensive assessment of the environmental compliance status of the subject property or a health-based risk assessment. In addition, a title search was not conducted by Centec, and the Client did not provide a chain-of-title report or environmental lien search to Centec for review. Based on the research completed, no such liens or environmental deed restrictions are considered likely for the subject property, and no such liens or use limitations were identified for the subject property on DTSC's Envirostor website.

SITE DESCRIPTION AND HISTORY

The subject property consists of four contiguous parcels totaling approximately 19.42 acres located at 17845 Indian Street, Moreno Valley 92551. The property is shown on the Site Location map (Map A) in the Appendix. The property can be found in the Riverside County Assessor's Map Book 316, Page 21, Parcels 19, 20, 51, and 77, as shown on Map B in the Appendix. (It should be noted that the address appears to only be associated with the former residence that was on Parcel 77 in the southeast quadrant of the site. There do not appear to be addresses associated with the other three parcels.)

According to historical aerial photographs, research on nearby properties completed by Centec in 2004 and 2007, information from the City of Moreno Valley as well as an interview with Mr. William Vogel, the owner of the southeast parcel of the subject property, the southeastern parcel had been developed between 1967 and 1978 with a single-family residence and several out-buildings. These structures were demolished in 2008, and all underground structures were apparently also removed (including electrical and septic systems). It appears that the southwestern parcel also was under sod agriculture and the extant trees appear to have been planted after 1978. The two northern parcels appear to have been under sod agriculture. Although herbicides, fungicides, and fertilizers may have been used at the subject property in the course of growing the sod, no records of hazardous materials incidents were located. The normal use of these approved materials does not suggest a significant environmental concern. No unusual conditions were visible on the property in the aerial photographs reviewed, a complete list of which can be found in the Appendix.

The property is zoned SP 208 I, a Moreno Valley designation for specific plan, industrial use. Adjacent properties include a fenced parcel used by Design Space Modular buildings for storage of said buildings, storage for trucks and trailers and a single-family home with a barn and other out buildings to the north, Grove View Business Park (currently one multi-tenant building) and a Waste Management transfer station across the intersection of Indian Street and Grove View Road to the northeast, vacant, rough-graded land across Indian Street to the east, I Herb in a new concrete tilt-up building to the south, and undeveloped, fallow agricultural land across the berms to the west and northwest. There was no evidence of significant hazardous material use or underground storage tanks at the properties surrounding the subject property, however the Waste Management transfer station has aboveground storage tanks and nearby March Air Force Base beyond 2,000 feet to the west is listed as a known location of contamination. Please refer to the "Known Sources of Off-Site Contamination" section of this report for information regarding properties of known environmental concern within a one-mile radius of the subject property.

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GEOLOGY AND HYDROGEOLOGY

The subject property is approximately 1,465 feet above sea level. Information for this section was obtained from the "City of Moreno Valley General Plan," Print Date - March 1989.

> The Moreno Valley study area lies primarily on a structural block of the earth's crust known as the Perris Block. The Perris Block is a geologic unit within one of the major geologic provinces of Southern California known as the Peninsular Range Province. The Perris Block consists of a 20 by 50 mile mass of granitic rock, generally bounded by the San Jacinto fault, the Elsinore fault, and the Santa Ana River, with the southeast boundary being largely ill-defined. The Block has had an apparent history of vertical land movements of several thousand feet due to shifts in the Elsinore and San Jacinto Blocks.
>
> Moreno Valley lies at the eastern margin of the Perris block. The geologic and seismic setting of the Moreno Valley is dominated by the close proximity of the "active" San Jacinto fault and the "potentially active" Casa Loma fault...Earth materials on the valley floor are Pliocene-Pleistocene alluvium ranging from relatively thin to intermediate thickness, overlying a primarily granitic bedrock.
>
> The extreme depths of groundwater levels within the Moreno Valley have generally limited the use of wells for agricultural and domestic use. The depth of wells varies from 200 to 800 feet within the Perris Basin and 100 to 1,800 feet within the San Jacinto Basin.

Further research found that, "According to the Department of the Air Force Record of Decision, Operable Unit #1, March Air Force Base, California, December 1995, very highly permeable clean sands are present at depths of approximately 50 feet below ground surface (bgs) in the vicinity of the subject property. These sands form a shallow aquifer." The extreme southeast portion of March Air Force base is located 2,000 feet west of the subject property. Research previously conducted indicated an irrigation well located on a nearby property is 636 feet deep, "is cased from 270 to 636 feet bgs and . . . has a static water level of 150 feet bgs. This well likely taps a deep aquifer that is separate from the shallower alluvial aquifer likely present beneath the Site. Groundwater flow at the March Air force Base mirrors the local topography and flows to the southeast. . . "

According to the U. S. Department of Homeland Security, FEMA website, the subject property is in Flood Zone AH, on Community Panel Map 0650740020B dated May 17, 1993.

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ON-SITE INSPECTION

The subject property and the surrounding vicinity were inspected by Centec personnel on March 1, 2011. Photographs and an aerial photograph believed to be from 2009 are included in the Appendix for reference.

The subject property, consisting of four contiguous, basically level rectangular-shaped parcels totaling 19.42 acres, is located at 17845 Indian Street, Moreno Valley 92551. The lack of buildings precludes the possibility of asbestos in building materials. (An asbestos survey was completed at the residence prior to the demolition. The laboratory analyses found no detectable asbestos in any of the 14 samples submitted for analysis.)

The subject property appears to have undergone disking for weed control prior to the rainy season, based on the track marks somewhat visible through the very healthy-appearing grasses and weeds on-site. The southeastern parcel, which has the address of 17845 Indian Street, was occupied by a single-family residence and out-buildings as well as what may have been a pond. The house was demolished in 2008, and there is only an area of gravel where the house apparently had been. There is also a pile of apparent telephone and/or electrical poles near the driveway for the former building. The pond area has water from the recent heavy rain events, and there are "ponds" and small streams in various parts of the subject property because of the rain events. The southwest parcel has 11 mature-appearing trees on-site, and a gravel-paved road runs along the southern perimeter of both southerly parcels. At the southwest corner of the southwestern parcel, someone has abandoned a sofa, and there is also a pile of clothing. The western side of the subject property is apparently defined by an earthen berm separating the subject property from what appears to be small recharge basin, and flow-way for rain runoff. The balance of the property is mostly clear of large debris, although trash has been thrown over the fence from the property to the north onto the subject property, and some sort of large plastic container is in pieces along the southern boundary, adjacent to the neighboring parking lot. There is a dirt road forming the boundary between the western and eastern parcels. No stains were noted on this road, although there is a "pond" on it just south of a small dogleg in the road. There are no indications of USTs, hazardous materials or wastes, significant staining, stressed vegetation, or other significant issues of environmental concern noted on the property.

Although no signs of toxic spills were evident there are areas of blown-on and dumped trash throughout the property. There was standing water evident on all of the parcels due to recent rain events. No transformers were noted on the property, but it will be served by Southern California Edison (SCE). SCE maintains that it is "highly unlikely that the transformers contain polychlorinated biphenyl (PCB) at concentration levels requiring special management under the Environmental Protection Agency's (EPA) rules. Federal law has prohibited the manufacture of transformers utilizing PCB since 1977. In addition, SCE has never specified the purchase of distribution transformers

utilizing PCB as the insulation/cooling fluid exclusively. In a statistically valid test of over 20,000 SCE distribution transformers, we determined that the concentration of PCB in the mineral oil is less than 50 parts per million (ppm) in over 96 percent of the units. The mineral oil in the 4 percent that tested above 50 ppm is generally below 100 ppm." The EPA defines less than 50 ppm as "non-PCB."

There was no documentary or physical evidence of former or current underground or aboveground storage tanks on the subject property. No evidence of ponds, pits, lagoons, groundwater monitoring wells or other possible conduits for contamination was noted during either the on-site inspection or during the file reviews. There was evidence of sensitive environmental receptors such as marshes, endangered species, etc., in the immediate vicinity because of the ditch running adjacent to the west side of the property and evidence of several bird species using the "ponds" on-site. No posted historical landmarks or high-tension electrical towers were noted in the vicinity of the subject property but some of the houses in the area to the north of the subject property may have historical interest.

Radon is generally not considered a significant area of concern for Southern California and has not been tested for in the course of this investigation. A 1990 study by the State of California Department of Health Services, in conjunction with the EPA, concluded that California ranks as the third lowest state in the country for percentage of dwellings exceeding the recommended action level for radon. The study also concluded that Southern California generally has an even lower incidence and likelihood of elevated levels of radon than the rest of the state.

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REVIEW OF GOVERNMENT AGENCIES AND PUBLIC RECORDS

Records on the subject property were requested from **City of Moreno Valley Building Department**, and the Department personnel located the demolition permit for the former single-family residence, as well as the asbestos report performed prior to the demolition in 2008. No records suggested the installation of USTs.

Pertinent records for the subject property were requested from the **Riverside County Department of Environmental Health** (RCDEH). RCDEH has not yet responded to the request. If data from RCDEH substantially alters the conclusions of the report, a letter addendum will be forwarded immediately.

Records were requested for the subject property from the **South Coast Air Quality Management District** (SCAQMD) database. The SCAQMD database had no listings for the subject property address.

A request to review of records at the **State of California Environmental Protection Agency - Department of Toxic Substances Control**, was responded to that no files were located for the subject property address.

A review of oil and gas well maps with the **State of California Department of Conservation, Division of Oil and Gas**, revealed no oil wells on or near the subject property (Map W1-7).

In 2004, Centec researched a neighboring property which was, at the time part of A-G Sod Farms of which the subject property had also been part. At the time, Mr. Greg Juarena, Manager of A-G Sod Farms, forwarded a list of the herbicides, fungicides and fertilizers used on the subject property. These materials include:

Turflon Ester, (herbicide) active ingredient - triclopyr: 3,5,6-trichloro-2-pyridinyloxyacetic acid, butoxyethyl ester 61.6%
inert ingredient 38.4%
100%

Contains petroleum distillates

Environmental Hazards: This pesticide is toxic to fish. Keep out of lakes, streams, or ponds. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Chipco 26-GT, (fungicide) active ingredient - Iprodione: 3-(3,5-dichlorophenyl)-N-(1-methylethyl_-2,4-dioxo-1-imidazolidinecarbox-amide) 23.3%

inert ingredient 76.7%
100%

Contains petroleum distillate

Environmental Hazards: This chemical can contaminate surface water though aerial and ground spray applications. Under some conditions, it may also have high potential for runoff into surface water after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

This pesticide is toxic to invertebrates. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the main high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Cleary 3336-WP, (fungicide) active ingredient - Thiophanate-methyl (dimethyl,4'-o-phenylenebis[3-thioallophanate]) 50.0%
inert ingredient 50.0%
100%

Environmental Hazards: This pesticide is toxic to fish. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the main high-water mark. Do not contaminate water by disposal of equipment washwaters. Do not apply, allow to drift, or drain or flush equipment onto non-target areas.

DITHANE DF, (fungicide) active ingredients - MANCOZEB, a coordination product of zinc ion and manganese ethylene bisdithiocarbamate 75%
In which these ingredient are:

Manganese++ 15.00%
Zinc++ 1.87%
Ethylene bisdithiocarbamate ion $(C_4H_6N_2S_4)^{--}$ 58.13%

Inert Ingredients 25%
100%

Environmental Hazards: This pesticide is toxic to fish. Dirt and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. For terrestrial uses, do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high watermark except as specified for the labeled use on cranberries. Do not contaminate water when disposing of equipment washwaters or disposing of wastes.

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Tupersan, (herbicide) active ingredient - Siduron [1-(2-methylcyclohexyl)-3-phenylurea] 50.0%
inert ingredients 50.0%
100.0%

Environmental Hazards: This product is toxic to fish. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high watermark. Do not apply where runoff is likely to occur. Do not apply when whether conditions favor drift from areas treated.

Based on the common practices involved with the use of these herbicides and fungicides, including the ordinarily limited quantities in which they are applied and the limited lifespan of such materials, no significant environmental concerns are evident from the use of these materials.

The subject property is not noted on public records reviewed as a known source of hazardous material contamination. Please refer to the following section of this report for our in-depth review of known cases of contamination located within one mile of the subject property.

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

KNOWN SOURCES OF OFF-SITE CONTAMINATION

Centec requested and received a database report on known or potential sources of off-site contamination in the vicinity of the subject property from Environmental FirstSearch Technology Corporation. The FirstSearch database searched pertinent federal, state, and local lists of public information, according to appropriate ASTM standards, to identify and geographically locate sites of concern within a maximum radius of 1.25 miles of the subject property. (The search radii were expanded to accommodate the large size of the property.)

The subject property is not listed as a location of hazardous materials use or contamination. The Moreno Valley Transfer Station (Map I.D. #1/2) a 20-acre facility across Indian Street to the northeast of the subject property, is routinely identified as a "landfill" and small-quantity generator of hazardous waste, but is not indicated (or suspected) to be a known source of contamination. It did report a possible spill, or more likely a container found, of "unknown household hazardous waste" in 1996, but it was "cleaned up" by a licensed hauler and is not considered to be of concern to the facility or the subject property. Two other sites ¼-½ mile away are also identified as small-quantity generators of waste (#3 and #4/5) but not as known sources of contamination from leaks or spills. A proposed school beyond one mile away to the southwest (#7) was routinely investigated, but no further actions were apparently taken when two USTs were discovered.

The only other listing is March Air Force Base (#6). The Base is an identified state and NPL "Superfund" site for various sources of soil and groundwater contamination from its decades as a military base. Its southeasterly corner is located 2,000 feet west of the subject property. Although it may be possible that groundwater below or near the subject property may be adversely impacted by the contaminants emanating from the Base, this is not considered likely since most of the contaminated areas are well west and northwest of the subject property, and off-site migration of wastes is apparently only an issue of concern along the western boundary of the Base. Remedial actions are proceeding at the Base under local and federal control to mitigate the effects of the various contaminants, including petroleum hydrocarbons, volatile organic compounds such as TCE and PCE, heavy metals, and others. There are no current or historical indications that would suggest activities at the subject property would implicate it with the contamination caused by March Air Force Base.

A summary listing of the identified sites and a map showing the listed sites within a one mile radius of the subject property are included on the following pages. A summary of the FirstSearch findings and a map showing the identified site locations within a 1.25-mile radius of the subject property are included on the following pages. The entire FirstSearch report, including site location maps, is included in Exhibit 1 in the Appendix.

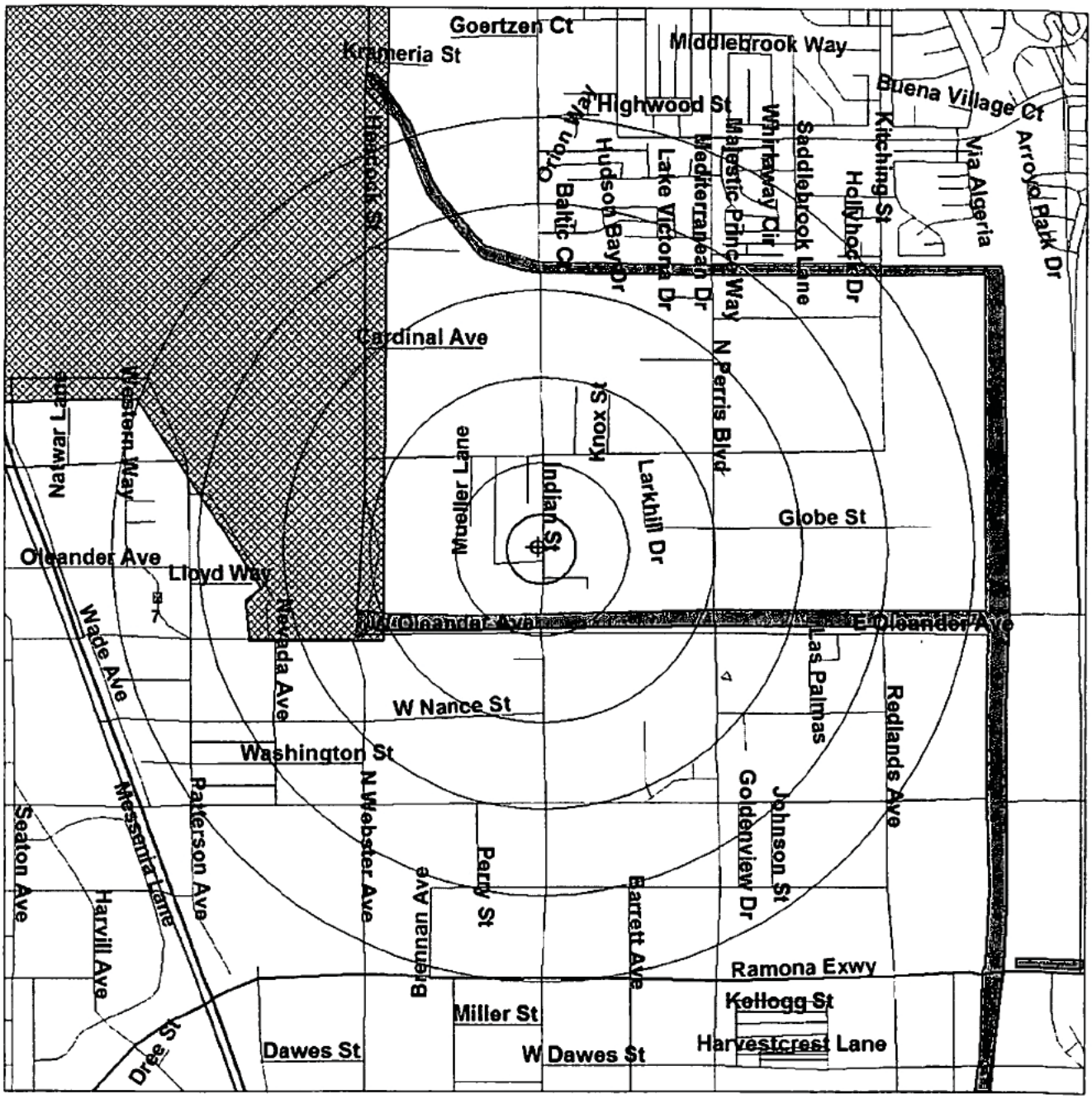
Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Environmental FirstSearch

1.25 Mile Radius

ASTM-05: NPL, RCRACOR, STATE

17845 INDIAN ST, MORENO VALLEY CA 92551



Source: U.S. Census TIGER Files

Target Site (Latitude: 33.862624 Longitude: -117.234816)

Identified Site, Multiple Sites, Receptor

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand

Railroads

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Environmental FirstSearch
Sites Summary Report

Target Property: 17845 INDIAN ST
MORENO VALLEY CA 92551

JOB: 0211011

TOTAL: 11 **GEOCODED:** 10 **NON GEOCODED:** 1 **SELECTED:** 0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Map ID
1	SWL	MORENO VALLEY SOLID WASTE R an SWIS33-AA-0234/ACTIVE	17700 INDIAN STREET MORENO VALLEY CA 92343	0.06 NE	N/A	1
2	ERNS	UNKNOWN 493080/FIXED FACILITY	17700 INDIAN ST MORENO VALLEY CA 92551	0.14 NE	0	2
3	OTHER	WASTE MANAGEMENT INLAND EMPIRE RICOGEN_1583/NOT REPORTED	17700 INDIAN ST MORENO VALLEY CA 92551	0.14 NE	0	2
3	RCRAGN	MORENO VALLEY TRANSFER STATION CAR000009969/SGN	17700 INDIAN ST MORENO VALLEY CA 92551	0.14 NE	0	2
4	OTHER	R B TRUCK REPAIR, INC. RICOGEN_1541/NOT REPORTED	24560 NANDINA AVE MORENO VALLEY CA 92551	0.27 NE	0	3
4	OTHER	BAUER MOTORSPORTS RICOGEN_1535/NOT REPORTED	24560 NANDINO AVE MORENO VALLEY CA 92551	0.27 NE	0	3
5	OTHER	MODULAR METAL FABRICATORS INC RICOGEN_1585/NOT REPORTED	24600 NANDINA AVE MORENO VALLEY CA 92553	0.28 NE	0	4
6	RCRAGN	MODULAR METAL FAB CAR000076828/SGN	24600 NANDINA AVE MORENO VALLEY CA 92551	0.30 NE	0	5
8	NPL	MARCH AIR FORCE BASE CA4570024527/FINAL	22 CSG/CC MARCH AFB CA 92518	0.46 NW	N/A	6
10	STATE	MEADE VALLEY ELEMENTARY SCHOOL CAL33820011/NO ACTION - FOR CALM	21-100 OLEANDER AVE PERRIS CA 92570	1.12 SW	+ 30	7

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Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CONCLUDING REMARKS

FINDINGS

The subject property, consisting of four contiguous, basically level rectangular-shaped parcels totaling 19.42 acres, is located at 17845 Indian Street, Moreno Valley, California 92551. The lack of buildings precludes the possibility of asbestos in building materials. (An asbestos survey was completed at the residence prior to the demolition in 2008. The laboratory analyses found no detectable asbestos in any of the 14 samples submitted for analysis.) The property appears to have undergone disking for weed control prior to the rainy season, based on the track marks somewhat visible through the very healthy-appearing grasses and weeds on-site. The southeastern parcel, which has the address of 17845 Indian Street, was occupied by a single-family residence and out-buildings as well as what may have been a pond. The house was demolished in 2008, and there is only an area of gravel where the house apparently had been. There is also a pile of apparent telephone and/or electrical poles near the driveway for the former building. The pond area has water from the recent rain events, and there are "ponds" and small streams in various parts of the subject property because of the heavy rain events. The southwest parcel has 11 mature-appearing trees on-site, and a gravel-paved road runs along the southern perimeter of both southerly parcels. At the southwest corner of the southwestern parcel, someone has abandoned a sofa, and there is also a pile of clothing. The western side of the subject property is apparently defined by an earthen berm separating the subject property from what appears to be small recharge basin, and flow-way for rain runoff. The balance of the property is mostly clear of large debris, although trash has been thrown over the fence from the property to the north onto the subject property, and some sort of large plastic container is in pieces along the southern boundary, adjacent to the neighboring parking lot. There is a dirt road forming the boundary between the western and eastern parcels. No stains were noted on this road, although there is a "pond" on it just south of a small dogleg in the road. The southeastern parcel had been developed between 1967 and 1978 with a single-family residence and several out-buildings. These structures were demolished in 2008, and all underground structures were apparently also removed (including electrical and septic systems). It appears that the southwestern parcel also was under sod agriculture and the extant trees appear to have been planted after 1978. The two northern parcels appear to have been under sod agriculture. Although herbicides, fungicides, and fertilizers have been used at the subject property in the course of growing the sod, no records of hazardous materials incidents were located. The normal use of these approved materials does not suggest a significant environmental concern. There are no indications of USTs, hazardous materials or wastes, significant staining, stressed vegetation, or other significant issues of environmental concern noted on the property. A review of adjacent properties indicated little evidence for serious concern. None of the adjacent properties appear to have underground storage tanks, are listed on public records reviewed as a known source of contamination, or appear to present an imminent threat of impairment to the subject property. The neighbor to the north is a storage lot for Design Space Modular buildings, as well as parking for trucks and

trailers and a single-family residence with barn and some other out-buildings. The land to the east and west is undeveloped, and the southern neighbor is I Herbs, which distributes vitamins and herbal supplements in a newly-constructed building, and may manufacture the products on-site.

No hazardous waste spills, or other suspect environmental conditions are known or suspected for the subject property. No neighboring or nearby sites, or known sources of contamination in the vicinity are deemed likely to adversely impact the subject property. Overall, the research and inspections conducted for this assessment do not suggest a likelihood of Recognized Environmental Conditions associated with the subject property.

OPINIONS

This assessment has revealed no evidence of Recognized Environmental Conditions (RECs) associated with the subject property. Accordingly, no further actions are recommended at this time.

In Centec's opinion, there are no significant data gaps in the preparation of this report.

According to an interview with Mr. William Vogel, the owner of a portion of the subject property, the property is being valued at a "fair market value," with no devaluation based on known or perceived issues of environmental contamination.

CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527 of property located at 17845 Indian Street, Moreno Valley, California 92551, the property. Any exceptions to, or deletions from, this practice are described in the Introduction Section of this report. This assessment has revealed no evidence of Recognized Environmental Conditions (RECs) associated with the property.

LIMITATIONS

This Phase I Environmental Assessment was performed in accordance with generally and currently accepted environmental engineering principles and practices, including current ASTM standards (E-1527-05). The findings of this Phase I report concerning the subject property should be considered a professional opinion based upon the data obtained during the investigation and should not be considered a definite statement that hazardous contamination is or is not present at the subject property. Any findings or recommendations concerning asbestos-containing materials should be considered limited in scope and are intended for preliminary screening purposes only. The conclusions made in this report are based on and in accordance with information obtained at this time from visual inspections of the property and from relevant federal, state, regional, and local agencies. Although Centec Engineering believes that the information contained herein is reliable, no guarantee is made as to the accuracy of information provided to Centec by others. This report was prepared for the use of

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Vogel Properties, Inc. and its lender and/or assigns. Although Centec Engineering consents to the release of this report to other third parties at the discretion of **Vogel Properties, Inc.**, Centec makes no warranty of any kind to other third parties and cannot be held liable for any reliance by other third parties upon the information contained herein.

We declare that, to the best of our professional knowledge and belief, we meet the definitions of Environmental Professional as defined in §312.10 of 40 CFR Part 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

CENTEC ENGINEERING, INC.

Steven Collins

Steven N. Collins, REA
Principal, REA #04384



Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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APPENDIX

TABLE 1 - LIST OF AGENCIES AND CONTACTS

MAP A - SITE LOCATION

MAP B - ASSESSOR'S MAP

AERIAL PHOTOGRAPH - 2009

PHOTOGRAPHS - SUBJECT PROPERTY

TABLE 2 - HISTORICAL AERIAL PHOTOGRAPH REVIEW

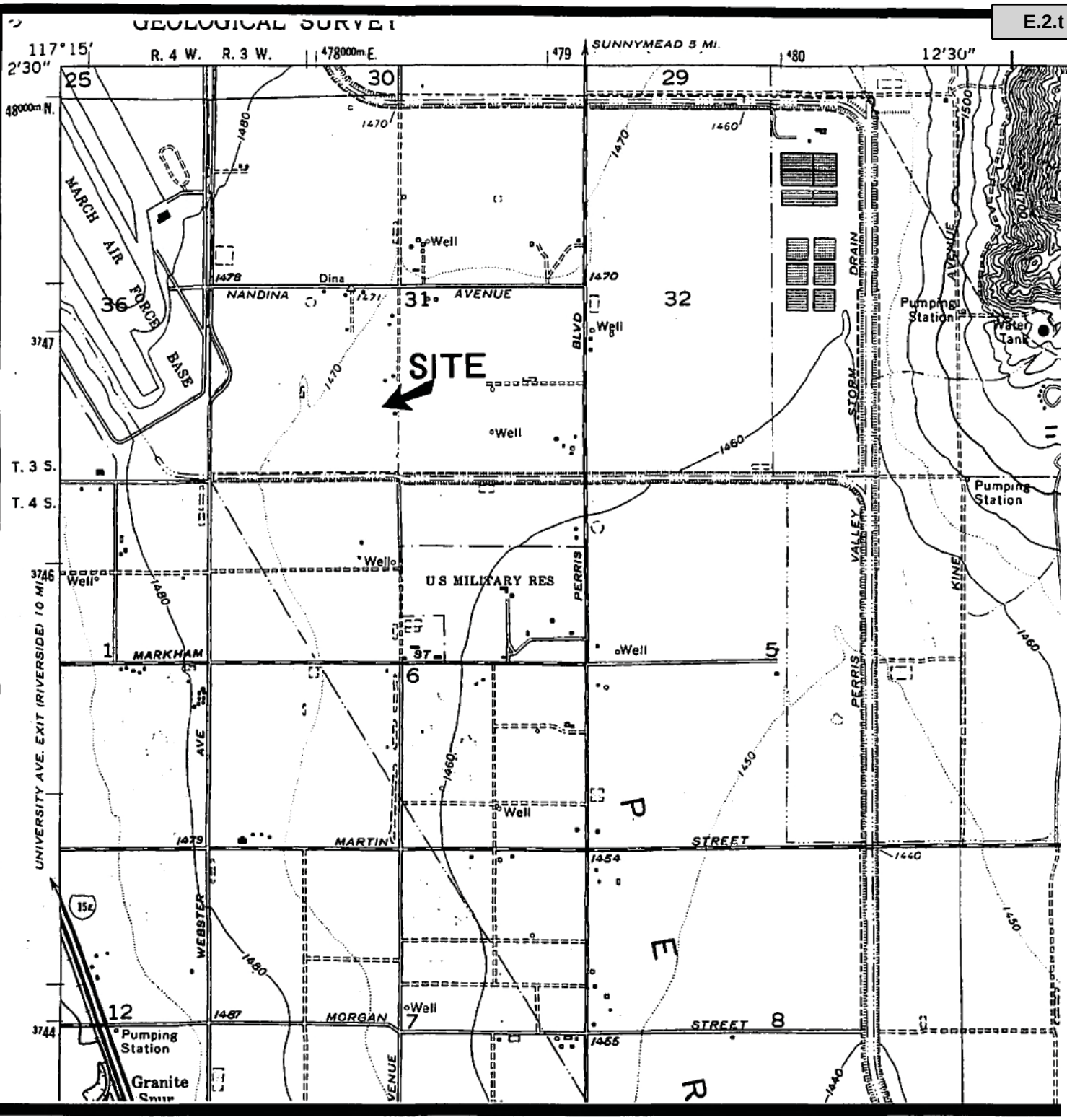
EXHIBIT 1 - ENVIRONMENTAL FIRSTSEARCH REPORT

TABLE 1

LIST OF AGENCIES AND CONTACTS

CITY OF MORENO VALLEY	-	www.moreno-valley.ca.us
Building and Safety Department	-	(909) 413-3461
Planning and Zoning		
RIVERSIDE COUNTY	-	www.countyofriverside.us
Assessor's Office	-	(909) 955-6200
Department of Environmental Health Services	-	(909) 358-5055
Flood Control	-	(909) 955-1220
Agricultural Commissioner	-	(909) 955-3000
WATER QUALITY CONTROL BOARD		
Santa Ana Region	-	(951) 782-4130
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	-	www.aqmd.gov
CITY OF LOS ANGELES		
Central Library Database, Sanborn Fire Insurance Maps	-	www.lapl.org
STATE OF CALIFORNIA		
Environmental Protection Agency -		
Department of Toxic Substances Control	-	(818) 551-2800
	&	(714) 484-5337
Waste Management Board	-	(916) 322-3330
Division of Mines & Geology	-	(916) 445-1825
Division of Oil & Gas	-	(714) 816-6847
	&	consrv.ca.gov/DOG
U. S. ENVIRONMENTAL PROTECTION AGENCY	-	(415) 744-2261
SOUTHERN CALIFORNIA EDISON	-	(714) 973-5653
U.S. DEPARTMENT OF HOMELAND SECURITY		
Federal Emergency Management Agency	-	msc.fema.gov
PROPERTY OWNER		
Mr. William D. Vogel	-	(909) 598-7065

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



CENTEC engineering

MAP A

SITE LOCATION

SCALE (in feet)

0 2000 4000

N

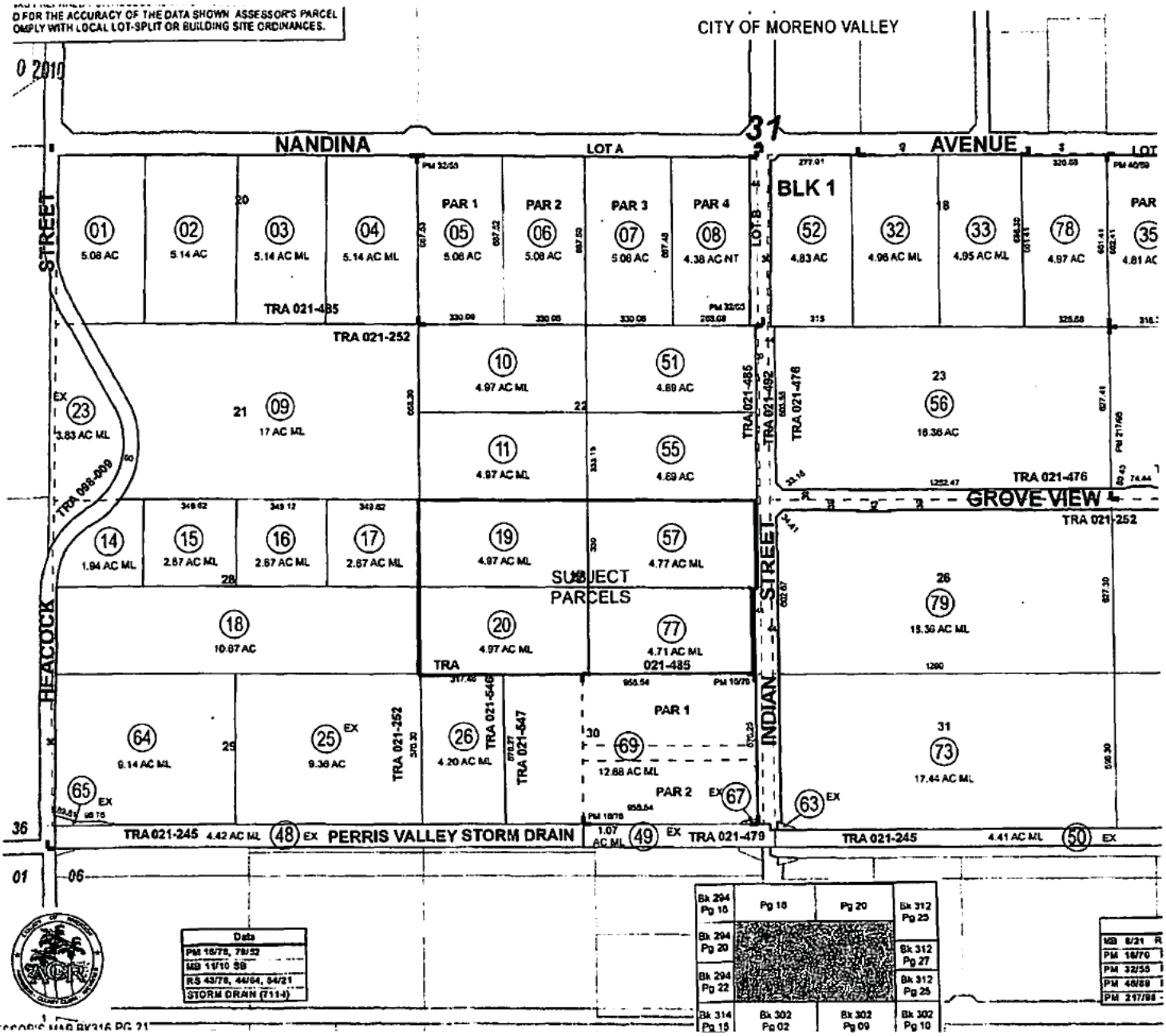
Property located at
17845 Indian Street
Moreno Valley, California 92551

SOURCE: USGS 7.5 TOPOGRAPHIC MAP
PERRIS QUADRANGLE

Centec Project #0211011

SITE LOCATION

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



CENTEC engineering

MAP B

ASSESSOR'S MAP

SCALE (in feet)

0 600 1200

N

Property located at
17845 Indian Street
Moreno Valley, California 92551



SITE LOCATION

SOURCE: RIVERSIDE COUNTY
ASSESSOR'S BOOK 316 PAGE 21

Centec Project #0211011

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(Approximate subject property outline in red)

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N

SCALE (not to scale)

AERIAL PHOTOGRAPH

Property located at
17845 Indian Street
Moreno Valley, California 92551

Centec Project #0211011



SITE LOCATION

SOURCE: MSN 2009

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



Looking southwesterly from near the northeast corner of the subject property.



Looking northwesterly from the southeast corner of the property, with a drain near the former driveway at left.



Looking north (at left) to south from near the center of the property, where a house and out buildings had been located at right.



Looking south (at left) to north from near the center of the property.



Looking northeast from the southwest corner of the property, with the adjacent I Herb building at right.



Looking southeast from the northwest corner of the property. Paved area at left is a small portion of the modular storage property adjacent to the north.

TABLE 2

HISTORICAL AERIAL PHOTOGRAPH REVIEW

Centec personnel reviewed historical aerial photographs at the Riverside County Flood Control District Historical Aerial Photograph Collection in Riverside, California. Using a magnifying glass and stereo scopes when appropriate, the following photographs were searched for the subject property and any signs of prior use or contamination. Photographs on historicaerials.com were also reviewed.

DATE	PHOTOGRAPH #
2005	historicaerials.com
03/11/00	#7-28 & #7-29
01/30/95	#7-27
01/09/90	#7-29 & #7-29
02/07/84	#1340 & #1341
04/10/80	#321 & #322
1978	historicaerials.com
05/24/74	#308 & #309
1967	historicaerials.com
01/28/62	#1-83 & #1-84
05/08/49	Book 3A AXM-6F-29

No signs of suspect prior use or contamination were found.

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ENVIRONMENTAL FIRSTSEARCH REPORT

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

APPENDIX E

ENVIRONMENTAL DATBASE REPORT

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17845 Indian Street
17845 Indian Street
Moreno Valley, CA 92551

Inquiry Number: 4346403.2s
July 07, 2015

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Physical Setting Source Addendum	A-1
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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

17845 INDIAN STREET
MORENO VALLEY, CA 92551

COORDINATES

Latitude (North):	33.8618000 - 33˚ 51' 42.48''
Longitude (West):	117.2370000 - 117˚ 14' 13.20''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	478077.7
UTM Y (Meters):	3746664.0
Elevation:	1472 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	33117-G2 PERRIS, CA
Most Recent Revision:	1979
North Map:	33117-H2 SUNNYMEAD, CA
Most Recent Revision:	1980
West Map:	33117-G3 STEELE PEAK, CA
Most Recent Revision:	1978

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20120519
Source:	USDA

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MAPPED SITES SUMMARY

Target Property Address:
17845 INDIAN STREET
MORENO VALLEY, CA 92551

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & DIRECTIC
Reg	MARCH AIR FORCE BASE		DOD	Same	1425, 0.27(
Reg	MARCH AIR FORCE BASE	22 CSG/CC	NPL, CERCLIS, RCRA-LQG, US ENG CONTROLS, US INST...	Same	1169, 0.22
A1	R A TRANSPORTAION	17731 INDIAN ST	RCRA NonGen / NLR	Lower	52, 0.010, E
A2	ISANL M ELEDESMA DBA	17731 INDIAN ST	RCRA NonGen / NLR	Lower	52, 0.010, E
A3	MORENO VALLEY TRANSF	17700 INDIAN ST	RCRA-SQG, FINDS, CA SWF/LF, CA NPDES, CA HAZNET,...	Lower	79, 0.015, E
B4	MARCH AIR FORCE BASE	7,123 ACRES; EAST OF	CA HIST Cal-Sites, CA RESPONSE, CA ENVIROSTOR	Higher	2747, 0.52(
B5	MARCH AIR FORCE BASE		CA BOND EXP. PLAN	Higher	2747, 0.52(
B6	PANERO AIRCRAFT FUEL	MARCH AFB	CA Notify 65	Higher	2747, 0.52(
B7	MARCH AIR RESERVE BA	3,545 ACRES; EAST OF	CA HIST Cal-Sites, CA Cortese, CA ENVIROSTOR	Higher	2747, 0.52(
B8	MARCH AIR FORCE BASE	7,123 ACRES; EAST OF	CA HIST Cal-Sites	Higher	2747, 0.52(
B9	BUILDING 962	MARCH AFB	CA CHMIRS, CA Notify 65	Higher	2747, 0.52(

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EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP ..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS ..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-CESQG ..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ..... Land Use Control Information System

Federal ERNS list

ERNS ..... Emergency Response Notification System

State and tribal leaking storage tank lists

CA LUST ..... Geotracker's Leaking Underground Fuel Tank Report

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CA SLIC ..... Statewide SLIC Cases
INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

CA UST ..... Active UST Facilities
CA AST ..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST ..... Underground Storage Tanks on Indian Land
FEMA UST ..... Underground Storage Tank Listing

State and tribal voluntary cleanup sites

CA VCP ..... Voluntary Cleanup Program Properties
INDIAN VCP ..... Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

ODI ..... Open Dump Inventory
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
CA SWRCY ..... Recycler Database
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands
CA WMUDS/SWAT ..... Waste Management Unit Database

Local Lists of Hazardous waste / Contaminated Sites

US CDL ..... Clandestine Drug Labs
CA SCH ..... School Property Evaluation Program
CA Toxic Pits ..... Toxic Pits Cleanup Act Sites
CA CDL ..... Clandestine Drug Labs
US HIST CDL ..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST ..... Facility Inventory Database
CA HIST UST ..... Hazardous Substance Storage Container Database
CA SWEEPS UST ..... SWEEPS UST Listing

Local Land Records

LIENS 2 ..... CERCLA Lien Information
CA LIENS ..... Environmental Liens Listing
CA DEED ..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ..... Hazardous Materials Information Reporting System
CA LDS ..... Land Disposal Sites Listing
CA MCS ..... Military Cleanup Sites Listing

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CA SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

DOT OPS	Incident and Accident Data
FUDS	Formerly Used Defense Sites
CONSENT	Superfund (CERCLA) Consent Decrees
UMTRA	Uranium Mill Tailings Sites
US MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
RAATS	RCRA Administrative Action Tracking System
RMP	Risk Management Plans
CA UIC	UIC Listing
CA HIST CORTESE	Hazardous Waste & Substance Site List
CA CUPA Listings	CUPA Resources List
CA DRYCLEANERS	Cleaner Facilities
CA WIP	Well Investigation Program Case List
CA ENF	Enforcement Action Listing
CA EMI	Emissions Inventory Data
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
CA Financial Assurance	Financial Assurance Information Listing
CA WDS	Waste Discharge System
CA HWT	Registered Hazardous Waste Transporter Database
CA HWP	EnviroStor Permitted Facilities Listing
CA MWMP	Medical Waste Management Program Listing
CA PROC	Certified Processors Database
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
EPA WATCH LIST	EPA WATCH LIST
US FIN ASSUR	Financial Assurance Information
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
COAL ASH DOE	Steam-Electric Plant Operation Data
2020 COR ACTION	2020 Corrective Action Program List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR US Hist Auto Stat	EDR Exclusive Historic Gas Stations
EDR US Hist Cleaners	EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

CA RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

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CA RGA LF..... Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 03/26/2015 has revealed that there is 1 NPL site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE	***22 CSG/CC***	***WNW 1/8 - 1/4 (0.221 mi.)***	***0***	***8***

Federal CERCLIS list

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 CERCLIS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE	***22 CSG/CC***	***WNW 1/8 - 1/4 (0.221 mi.)***	***0***	***8***

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Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 03/10/2015 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE	*22 CSG/CC*	*WNW 1/8 - 1/4 (0.221 mi.)*	*0*	*8*

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 03/10/2015 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MORENO VALLEY TRANSF	*17700 INDIAN ST*	*ENE 0 - 1/8 (0.015 mi.)*	*A3*	*52*

Federal institutional controls / engineering controls registries

US ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the US ENG CONTROLS list, as provided by EDR, and dated 03/16/2015 has revealed that there is 1 US ENG CONTROLS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE	*22 CSG/CC*	*WNW 1/8 - 1/4 (0.221 mi.)*	*0*	*8*

US INST CONTROL: A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

A review of the US INST CONTROL list, as provided by EDR, and dated 03/16/2015 has revealed that there is 1 US INST CONTROL site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE	*22 CSG/CC*	*WNW 1/8 - 1/4 (0.221 mi.)*	*0*	*8*

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State- and tribal - equivalent NPL

CA RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the CA RESPONSE list, as provided by EDR, and dated 05/04/2015 has revealed that there is 1 CA RESPONSE site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE Status: Certified Facility Id: 33350014 Facility Id: 33970003	***7,123 ACRES; EAST OF***	***NW 1/2 - 1 (0.520 mi.)***	***B4***	***59***

State- and tribal - equivalent CERCLIS

CA ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the CA ENVIROSTOR list, as provided by EDR, and dated 05/04/2015 has revealed that there are 2 CA ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE Status: Certified Facility Id: 33970003 Facility Id: 33350014	***7,123 ACRES; EAST OF***	***NW 1/2 - 1 (0.520 mi.)***	***B4***	***59***
MARCH AIR RESERVE BA Status: Active Facility Id: 33970004	***3,545 ACRES; EAST OF***	***NW 1/2 - 1 (0.520 mi.)***	***B7***	***69***

State and tribal landfill and/or solid waste disposal site lists

CA SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the CA SWF/LF list, as provided by EDR, and dated 05/18/2015 has revealed that there is 1 CA SWF/LF site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MORENO VALLEY TRANSF Facility ID: 33-AA-0234 Site ID: 2755 Status: Active Regulation Status: Permitted Operational Status: Active	***17700 INDIAN ST***	***ENE 0 - 1/8 (0.015 mi.)***	***A3***	***52***

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ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CA HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the CA HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there are 3 CA HIST Cal-Sites sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE	***7,123 ACRES; EAST OF***	***NW 1/2 - 1 (0.520 mi.)***	***B4***	***59***
MARCH AIR RESERVE BA	***3,545 ACRES; EAST OF***	***NW 1/2 - 1 (0.520 mi.)***	***B7***	***69***
MARCH AIR FORCE BASE	7,123 ACRES; EAST OF	NW 1/2 - 1 (0.520 mi.)	B8	107

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/10/2015 has revealed that there are 2 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
R A TRANSPORTAION	17731 INDIAN ST	ENE 0 - 1/8 (0.010 mi.)	A1	50
ISANL M ELEDESMA DBA	17731 INDIAN ST	ENE 0 - 1/8 (0.010 mi.)	A2	51

DOD: Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 12/31/2005 has revealed that there is 1 DOD site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE		W 1/4 - 1/2 (0.270 mi.)	0	8

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 11/25/2013 has revealed that there is 1 ROD site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE	***22 CSG/CC***	***WNW 1/8 - 1/4 (0.221 mi.)***	***0***	***8***

EXECUTIVE SUMMARY

CA BOND EXP. PLAN: Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there is 1 CA BOND EXP. PLAN site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE		NW 1/2 - 1 (0.520 mi.)	B5	68

NY MANIFEST: Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

A review of the NY MANIFEST list, as provided by EDR, has revealed that there is 1 NY MANIFEST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE EPA ID: CA4570024527	***22 CSG/CC***	***WNW 1/8 - 1/4 (0.221 mi.)***	***0***	***8***

CA Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the CA Notify 65 list, as provided by EDR, and dated 10/21/1993 has revealed that there are 2 CA Notify 65 sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PANERO AIRCRAFT FUEL	MARCH AFB	NW 1/2 - 1 (0.520 mi.)	B6	69
BUILDING 962	***MARCH AFB***	***NW 1/2 - 1 (0.520 mi.)***	***B9***	***111***

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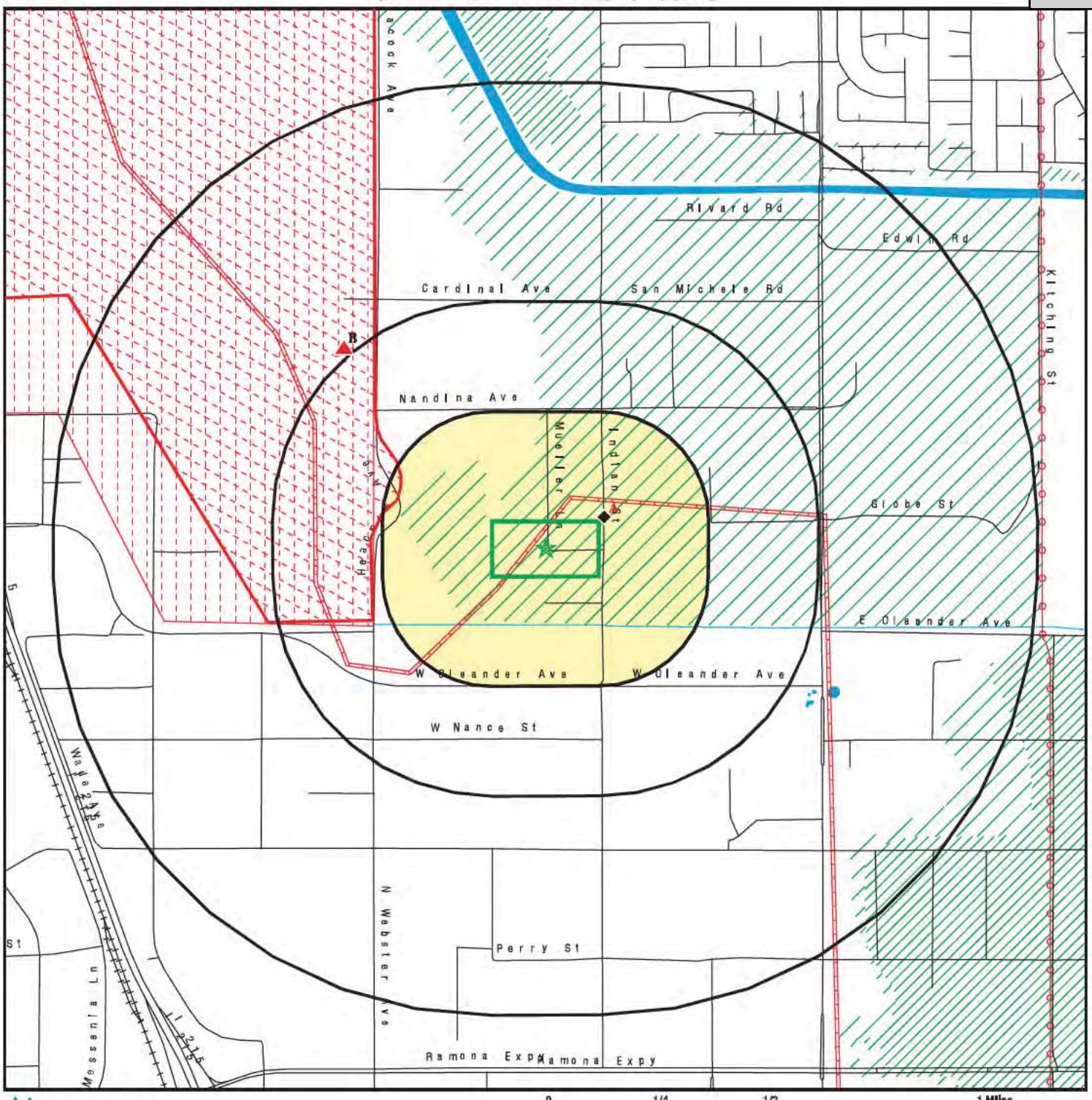
There were no unmapped sites in this report.

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

OVERVIEW MAP - 4346403.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Pipelines
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

This report includes Interactive Map Layers display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 17845 Indian Street ADDRESS: 17845 Indian Street Moreno Valley CA 92551 LAT/LONG: 33.8618 / 117.237	CLIENT: Ardent Environmental Group CONTACT: Dennis Kawasaki INQUIRY #: 4346403.2s DATE: July 07, 2015 1:32 pm

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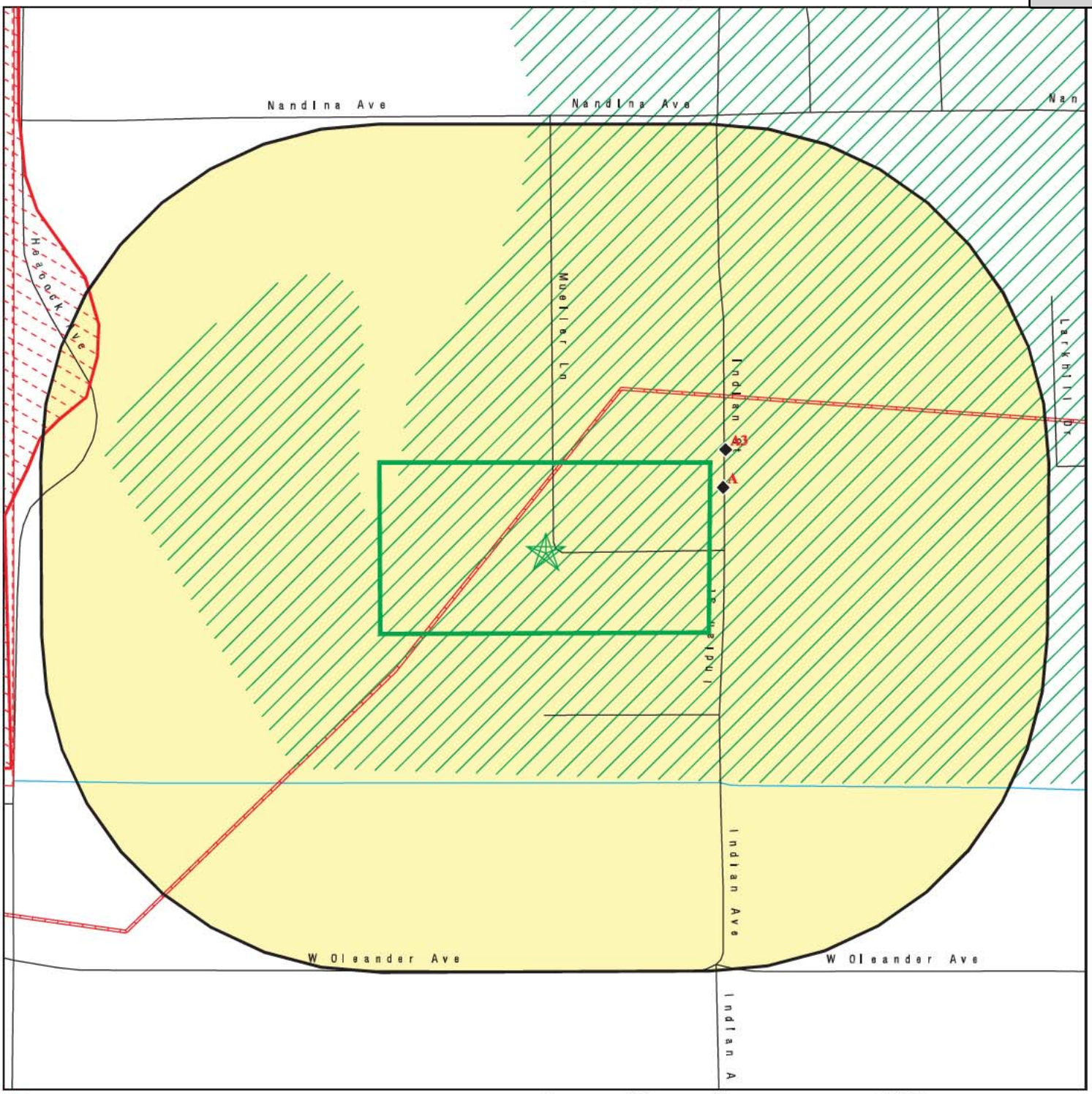
DETAIL MAP - 4346403.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Pipelines
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

0 1/16 1/8 1/4 Miles

This report includes Interactive Map Layers display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 17845 Indian Street	CLIENT: Ardent Environmental Group
ADDRESS: 17845 Indian Street Moreno Valley CA 92551	CONTACT: Dennis Kawasaki
LAT/LONG: 33.8618 / 117.237	INQUIRY #: 4346403.2s DATE: July 07, 2015 1:34 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	1	0	0	NR	1
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	1	0	NR	NR	1
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	1	NR	NR	NR	1
RCRA-SQG	0.250		1	0	NR	NR	NR	1
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.500		0	1	0	NR	NR	1
US INST CONTROL	0.500		0	1	0	NR	NR	1
LUCIS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
CA RESPONSE	1.000		0	0	0	1	NR	1
State- and tribal - equivalent CERCLIS								
CA ENVIROSTOR	1.000		0	0	0	2	NR	2
State and tribal landfill and/or solid waste disposal site lists								
CA SWF/LF	0.500		1	0	0	NR	NR	1
State and tribal leaking storage tank lists								
CA LUST	0.500		0	0	0	NR	NR	0

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CA SLIC	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
CA UST	0.250		0	0	NR	NR	NR	0
CA AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
CA VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
CA SWRCY	0.500		0	0	0	NR	NR	0
CA HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
CA WMUDS/SWAT	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
CA HIST Cal-Sites	1.000		0	0	0	3	NR	3
CA SCH	0.250		0	0	NR	NR	NR	0
CA Toxic Pits	1.000		0	0	0	0	NR	0
CA CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250		0	0	NR	NR	NR	0
CA HIST UST	0.250		0	0	NR	NR	NR	0
CA SWEEPS UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
CA LIENS	TP		NR	NR	NR	NR	NR	0
CA DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CA CHMIRS	TP		NR	NR	NR	NR	NR	0
CA LDS	TP		NR	NR	NR	NR	NR	0

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CA MCS	TP		NR	NR	NR	NR	NR	0
CA SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		2	0	NR	NR	NR	2
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	1	0	NR	1
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	1	0	0	NR	1
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	1	NR	1
CA UIC	TP		NR	NR	NR	NR	NR	0
CA NPDES	TP		NR	NR	NR	NR	NR	0
CA Cortese	0.500		0	0	0	NR	NR	0
CA HIST CORTESE	0.500		0	0	0	NR	NR	0
CA CUPA Listings	0.250		0	0	NR	NR	NR	0
NY MANIFEST	0.250		0	1	NR	NR	NR	1
CA Notify 65	1.000		0	0	0	2	NR	2
CA DRYCLEANERS	0.250		0	0	NR	NR	NR	0
CA WIP	0.250		0	0	NR	NR	NR	0
CA ENF	TP		NR	NR	NR	NR	NR	0
CA HAZNET	TP		NR	NR	NR	NR	NR	0
CA EMI	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
CA Financial Assurance	TP		NR	NR	NR	NR	NR	0
CA WDS	TP		NR	NR	NR	NR	NR	0
CA HWT	0.250		0	0	NR	NR	NR	0
CA HWP	1.000		0	0	0	0	NR	0
CA MWMP	0.250		0	0	NR	NR	NR	0
CA PROC	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		0	0	NR	NR	NR	0
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
CA RGA LUST	TP		NR	NR	NR	NR	NR	0
CA RGA LF	TP		NR	NR	NR	NR	NR	0
- Totals --		0	4	8	1	9	0	21

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

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MAP FINDINGS

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
DOD **Region West** **1/4-1/2** **1425 ft.**	**MARCH AIR FORCE BASE (CLOSED)** **MARCH AIR FORCE BASE (CLO (County), CA**	**DOD**	**CUSA143538** **N/A**

DOD:

Feature 1:	Air Force DOD
Feature 2:	Not reported
Feature 3:	Not reported
URL:	Not reported
Name 1:	March Air Force Base (Closed)
Name 2:	Not reported
Name 3:	Not reported
State:	CA
DOD Site:	Yes
Tile name:	CARIVERSIDE

NPL **Region WNW** **1/8-1/4** **1169 ft.**	**MARCH AIR FORCE BASE** **22 CSG/CC** **RIVERSIDE, CA 92518**	**NPL** **CERCLIS** **RCRA-LQG** **US ENG CONTROLS** **US INST CONTROL** **ROD** **NY MANIFEST** **PRP**	**1000169261** **CA4570024527**

NPL:

EPA ID:	CA4570024527
Cerclis ID:	0902761
EPA Region:	9
Federal:	F
Final Date:	1989-11-21 00:00:00
Site Score:	31.940000000000001

Category Details:

NPL Status:	Currently on the Final NPL
Category Description:	Depth To Aquifer-> 50 And <= 100 Feet
Category Value:	65

NPL Status:	Currently on the Final NPL
Category Description:	Distance To Nearest Population-> 0 And <= 1/4 Mile
Category Value:	10

Site Details:

Site Name:	MARCH AIR FORCE BASE
Site Status:	Final
Site Zip:	92518
Site City:	RIVERSIDE
Site State:	CA
Federal Site:	Yes
Site County:	RIVERSIDE
EPA Region:	09
Date Proposed:	07/14/89
Date Deleted:	Not reported
Date Finalized:	11/21/89

Substance Details:

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Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR FORCE BASE (Continued) **1000169261**

NPL Status: Currently on the Final NPL
Substance ID: Not reported
Substance: Not reported
CAS #: Not reported
Pathway: Not reported
Scoring: Not reported

NPL Status: Currently on the Final NPL
Substance ID: A046
Substance: POLYCHLORINATED BIPHENYLS
CAS #: 1336-36-3
Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: U210
Substance: TETRACHLOROETHENE
CAS #: 127-18-4
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U228
Substance: TRICHLOROETHYLENE (TCE)
CAS #: 79-01-6
Pathway: GROUND WATER PATHWAY
Scoring: 2

Summary Details:

Conditions at proposal July 14, 1989): March Air Force Base MAFB) covers approximately 7,000 acres near Riverside in the Moreno Valley in Riverside County, California. MAFB is adjacent to light industrial, agricultural, and residential areas. Established in 1918 as the Alessandro Aviation Field, MAFB has served as a training base and refueling operations base. Industrial operations including aircraft maintenance and repair) involved use of solvents and disposal of solvent wastes. MAFB is participating in the Installation Restoration Program IRP), established in 1978. Under this program, the Department of Defense seeks to identify, investigate, and clean up contamination from ha ardous materials. As part ofIRP, the Air Force investigated 28 potentially contaminated disposal areas. MAFB Well No. 1 on-base was found to be contaminated with trichloroethylene, tetrachloroethylene, and cis-1,2-dichloroethylene at levels that exceed State drinking water standards. It was taken out of service. Soils on the base are contaminated with toluene and ben ene. An estimated 11,600 people obtain drinking water from municipal wells within 3 miles of ha ardous substances on MAFB. The Air Forceis conducting a remedial investigation/ feasibility study RI/FS) to determine the type and extent of contamination at the base and identify alternatives for remedial action. Status November 21, 1989): Field work continues on the RI/FS.

Site Status Details:
NPL Status: Final
Proposed Date: 07/14/1989
Final Date: 11/21/1989
Deleted Date: Not reported

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Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site | Database(s) | EDR ID Number / EPA ID Number

MARCH AIR FORCE BASE (Continued) **1000169261**

Narratives Details:
- NPL Name: MARCH AIR FORCE BASE
- City: RIVERSIDE
- State: CA

CERCLIS:
- Site ID: 0902761
- EPA ID: CA4570024527
- Facility County: RIVERSIDE
- Short Name: MARCH AIR FORCE BASE
- Congressional District: 41
- IFMS ID: 09N6
- SMSA Number: 6780
- USGC Hydro Unit: 18070202
- Federal Facility: Federal Facility
- DMNSN Number: 7000.00000
- Site Orphan Flag: N
- RCRA ID: Not reported
- USGS Quadrangle: Not reported
- Site Init By Prog: Not reported
- NFRAP Flag: Not reported
- Parent ID: Not reported
- RST Code: Not reported
- EPA Region: 09
- Classification: Federal Facility
- Site Settings Code: SU
- NPL Status: Currently on the Final NPL
- DMNSN Unit Code: ACRE
- RBRAC Code: Not reported
- RResp Fed Agency Code: USAF
- Non NPL Status: Not reported
- Non NPL Status Date: / /
- Site Fips Code: 06065
- CC Concurrence Date: / /
- CC Concurrence FY: Not reported
- Alias EPA ID: Not reported
- Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):
- Contact ID: 9000102.00000
- Contact Name: John Lucey
- Contact Tel: (415) 972-3145
- Contact Title: Remedial Project Manager (RPM)
- Contact Email: Not reported

- Contact ID: 13003854.00000
- Contact Name: Leslie Ramirez
- Contact Tel: (415) 972-3978
- Contact Title: Site Assessment Manager (SAM)
- Contact Email: Not reported

- Contact ID: 13003858.00000
- Contact Name: Sharon Murray
- Contact Tel: (415) 972-4250
- Contact Title: Site Assessment Manager (SAM)

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MARCH AIR FORCE BASE (Continued) **1000169261**

Contact Email: Not reported

Contact ID: 13004003.00000
Contact Name: Carl Brickner
Contact Tel: Not reported
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

CERCLIS Site Alias Name(s):
Alias ID: 101
Alias Name: MARCH AFB
Alias Address: Not reported
CA
Alias ID: 102
Alias Name: MARCH AIR FORCE BASE
Alias Address: 22 CSG/CC
MARCH AFB, CA 92518
Alias ID: 103
Alias Name: MARCH AIR FORCE BASE
Alias Address: 22 CSG/CC
RIVERSIDE, CA 92518
Alias ID: 9270150
Alias Name: MARCH USAF BASE
Alias Address: OLDB MARCH 3430 BUNDY AVENUE
MARCH AFB, CA 92311
Alias ID: 101
Alias Comments: PREVIOUS EPA ID# AZD 981 416 977

Site Description: March Air Force Base originally a 640 acres site called Alessandro Aviation Field, was officially opened March 1, 1918. The base was initially used to train "Jenny" pilots during World War I. The base was closed for about four years after the war and was then reopened in 1927. By 1938, the base was considered to be the central location for west coast bombing and gunnery training. In 1949, the Strategic Air Command took control of the base. Since that time, the base has hosted bombers, refuelers, and cargo aircraft. In June 1992, the base became an Air Mobility Command installation. Its primary mission is refueling, but reserve and guard units have cargo and fighter missions as well. In September 1993, March AFB was designated by Congress to realign its forces. The Base will be redesignated "March Air Reserve Base" and is xpected to decrease to about 1/3 of its present size. After realignment, property that is not retained by the base will be available for transfer.

The U.S. Air Force, due to its primary mission in national defense, has long been engaged in a wide variety of operations that involve the use, storage, and disposal of hazardous waste. In 1980, the Installation Restoration Program (IRP) was developed by the Department of Defense (DOD) to locate and cleanup hazardous waste sites. At March AFB, aircraft maintenance, fuel storage operations, fire-training exercises, and base operations have generated a variety of hazardous wastes. Consequently, several areas of soil and groundwater on-base have been contaminated. In September 1983 the IRP process began. The results were records indicating 30 potentially contaminated sites which required further investigation. A second study, completed in March 1987, indicated that 5 of the 30 sites required even further investigation to determine the type and extent of contamination in the soil and groundwater. In June 1987, further investigation was done, indicating that additional work was required to better define the extent of contamination and to research possible off-base migration of TCE in groundwater. In November 1989, March AFB was add to the National Priorities List (NPL) primarily due to the contamination of groundwater on-base. In September 1990, a Federal

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Facilities Agreement (FFA) was signed by the Air Force, U.S. Environmental Protection Agency (EPA), and the State of California. Three separate OUs were created based on geographic location of sites, similarity of contaminants, and location of groundwater contaminant plumes. The subject of this ROD (6/20/96) is OU-1, OU-1 includes Sites 4,5,7,9,10,13,14,15,16,18,29,31,34, and 38. Groundwater at Sites 4, 18,31,and the OU-1 Groundwater Plume, and soil at Sites 4,10,15,18,31, and 34 require remedial action. Sites 5,7,9,13,14,6,29, and 38 are considered no further action. Sites 21 and 23 are covered in OU-2 ROD. Site 33, the Panero Aircraft Fueling System is detailed in OU-3. The following are Sites that require Groundwater remediation: OU 1-Groundwater Plume - The OU-1 Groundwater Plume is the most widespread plume at the base, extending from Site 31 south and east through the area of Sites 34, 9, and 5, and extending to a maximum of approximately 1300 feet beyond the eastern boundary and 1500 feet south of Site 5 off-base. Numerous contaminants, including TCE, were detected. Site 4 Groundwater Plume - This plume is localized in the vicinity of Site 4 with the apparent source area near the southern end of Site 4. The contaminants with the highest concentration are TCE and PCE. Site 18 - Groundwater Plume - This plume is localized in the vicinity of Site 18 with the apparent source area west of the engine test cell in the center of Site 18. Fuel has been detected in four of the ten monitoring wells to date. Site 31 - Groundwater Plume - Concentrations of contaminants at Site 31, primarily TCE, are much higher than those in the rest of the OU-1 Plume, and these high concentrations are confined to a relatively small area. These conditions coupled with the history of Site 31 (reported solvent disposal) indicate that Site 31 is a likely source for much of the TCE found in OU-1 groundwater. Therefore, even though the Site 31 plume has the same contaminants and is continuous with the OU-1 plume, it is appropriate to treat Site 31 separately from the remainder of the OU-1 plume, in order to eliminate the source of contamination. Sites That Require Soil Remediation Include: Site 4 - Landfill No.6 - a landfill operating from 1955 to 1969, covering 8.5 acres, and located along the eastern boundary of the base, south of the East Gate. The landfill is up to 25 feet deep, containing primarily sanitary waste, construction rubble, and debris. Small amounts of medical wastes and empty fuel containers are also present. There are low levels of chlorinated solvents in the soil and soil gas, as well as elevated concentrations of trichloroethylene (TCE) and tetrachloroethylene (PCE) in the groundwater. Both TCE and PCE are found in solvents used to clean and degrease military equipment. Vinyl chloride, a breakdown product of TCE and PCE, has also been detected in Site 4 groundwater. The landfill is considered the source of contaminants detected in groundwater downgradient of the Site. Site 10 - Flightline Drainage Channel - This site, installed prior to 1940, is located southeast of the flightline aircraft maintenance areas. The channel is concrete lined (since the 1960s) up to the eastern boundary of the base where it discharges to the Perris Valley Storm Drain (PVSD). The PVSD flows east approximately 2 miles, where it joins another drainage and flows south approximately 6 miles to the San Jacinto River. The channel has reportedly received various waste oils, hydraulic fluids, diesel fuel, jet fuel, waste paints, paint strippers, paint thinners, battery acids and solvents, including TCE. Prior to 1974, wastes may have been discharged directly to the PVSD. Since 1974, the main oil/water separator has pretreated the runoff before its discharge off-base. Site 15 - Fire Protection Training Area No.3- This site is located southeast of the end of runway 12-30 and between Sites 5 and 7. The area was developed in 1978 and was reportedly constructed by placing an underdrain system and gravel over a clay liner. Firefighting water, solutions of Aqueous Film Forming Foam (AFFF), and residual fuel used during training exercises were drained to a formerly unlined water holding pond located adjacent to Site 15. Approximately 6,000 gallons per year

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of contaminated JP-4 have been burned in training exercises since the facility was constructed in 1978. This Site is no longer being used as a fire training area. Site 18 - Engine Test Cell - This site is located on the flightline, south of Taxiway No.2, and has been inactive for several years. The test cell was constructed in 1957 for the purpose of testing aircraft engines. An oil/water separator was installed in 1976, water from the seperator was discharged to the base wastewater treatment plant. The oil was collected by a contractor for off-base disposal. Prior to 1976, spills of oil, fuel, and solvents were drained to a nearby ditch. Potential sources of fuel include overflow of tanker trucks and fuel tanks on aircraft that have been parked nearby. Site 31 - Unconfirmed Solvent Disposal - Site 31 is located off Graeber Street on the east side of Building 1211. The practice of discharging solvents on the ground reportedly occurred from about the mid-1950s to the mid-1970s. In addition, floor drains from maintenance shops may have leaked solvents to the subsurface. Groundwater sampling at the site has indicated TCE concentrations which exceed State and Federal drinking water standards. Site 34 - Pritchard Aircraft Fueling System - Site 34 is located next to Building 1245, at the southeast end of Taxiway No, 1. In 1962, six 50,000 gallon tanks were moved to this site from the Pabero Fueling System. In 1990, this system was discontinued, and in 1991, the tanks and system were removed. During a geological investigation stained soils and fuel odors were observed. Sites With No Further Action Planned: Site 5 - Landfill No.3 - This Site covers approximately 5 acres and is located southeast of the present flightline. The landfill was reportedly operated from the late 1940s to approximately 1960. Landfill wastes consist primarily of sanitary waste and construction rubble. Site 7 - Fire Training Area No.2 - This Site is located on the eastern part of the base, north of the Alert Facility. Between 1954 and 1978, fire training exercises were conducted in unlined training pits. Three distinct burn pits were identified in historic aerial photographs of the base. A portion of this Site may have been used for crash rescue training. Wastes used in those exercises reportedly included contaminated fuel, waste solids, and spent solvents. Site 9 - Main Oil/Water Separator - Site 9 is located north of the Site 5 at the southeast end of the flightline apron. The facility was constructed in 1974 and serves the main storm, drainage system for the flightline apron and the flightline shops. The storm drains have reportedly received waste oils, hydraulic fluids, diesel fuel, waste paints, spent solvents, paint strippers, paint thinners, and battery acids. The oil/water separator is of earthen construction with a large baffle that divides the separator into two compartments. The separated oil is picked up by a skimmer and pumped to a holding tank for Off-base disposal. This facility drains into the flightline Drainage Channel (Site 10) and then to the Perris Valley Storm Drain Lateral A. Site 13 - Tank Truck Spill Site - Site 13 is located along the eastern perimeter road of the base, within the northern portion of Site 5. In 1973, approximately 5,000 gallons of JP-4 jet fuel spilled from a tank truck to the ground at this location. The accidental discharge resulted from a mechanical malfunction. There was no reported containment or cleanup activities. Site 14 - Liquid Fuel Pump Station Overflow - Site 14 is located southeast of the flightline apron and about 50 to100 feet west of the East March Sludge Drying Beds (Site 16). In 1973, approximately 1,000 gallons of JP-4 jet fuel spilled onto the ground. The spill occurred due to an overflow of the liquid fuel pump station at Building 1245. The spill was contained in the unpaved area south of the pump station and allowed to percolate into the ground. Site 16 - East March Sludge Drying Beds - Site 16 is located on the eastern part of the base, at the south end of the flight line parking apron, and near the former East March Wastewater Treatment Plant. The treatment plant was constructed in 1938 and provided secondary treatment for sanitary and industrial wasterwater. Primary and secondary sludges were digested

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anaerobically, dewatered on unlined sludge drying beds, and disposed of in an on-base landfill. The sludge may have contained heavy metals and organics resulting from discharges of industrial wastes to the sanitary sewer system. These drying beds ope3rated from 1938 to 1977, when the plant was destroyed in place. Site 29 - Fire Training Area No.1 - Site 29 is located at the eastern part of the base, north of Site 9. The area was used as a fire training pit prior to 1951. Suspected contaminants at the site include contaminated fuel, waste oil, and spent solvents Site 38 (PCB Contamination, Building 1311), Building 1311 is located at the southeast end of the taxiway, northwest of IRP Site 23. In 1984, soils from four areas contaminated with transformer oils were sampled. Soils from two of the areas (Buildings 317 and 1305) were determined to be PCB-contaminated. The soils were excavated and removed from the Base. Records to verify the cleanup have not been located. The RI/FS report and Proposed Plan for OU-1 were released to the public on April 28, 1994. These two documents were made available via the Administrative Record, the information repositories at the Moreno Valley and March AFB libraries, and at the Moreno Valley Chamber of Commerce. A fact sheet, condensed from the Proposed Plan, was sent to everyone on the March AFB mailing list, which includes Restoration Advisory Board (RAB) members. An OU-1 RI/FS subcommittee, formed by the RAB, provided oral comments to the RAB at its April 26, 1994 meeting. The Final RI/FS Report was published in July 1994. A public comment period was held from April 28 to May 28, 1994. In addition, a public meeting was held on May 12, 1994 at 7 p.m. at Best Western Image Suites in Moreno Valley. Representatives of the U.S. Air Force, EPA, Department of Toxic Substances Control, and California Regional Water Quality Control Board, Santa Ana, attended the public meeting to address any questions about the RI/FS and Proposed Plan. March Air Force Base (AFB) is located on 7,123 Acres in the northern end of the Perris Valley, east of the city of Riverside, in Riverside County, California, approximately 60 miles east of Los Angeles and 90 miles north of San Diego. The base lies in sections of Township 3 South, Range 4 West. The population of Riverside County is 1,700,413 and consists primarily of English and Spanish speaking citizens. The climate of the March AFB area is characterized as Mediterranean to semi-arid, varying according to elevation and distance from the Pacific Ocean. The weather generally consists of warm to hot, dry summers and mild winters. Current land use on March AFB is classified as residential and light industrial. Maintenance facilities, warehouses, and administrative centers support the mission. The land surrounding March AFB area includes areas of residences in all directions around the Site, light industry to the north, and agriculture to the east and south. With the exception of small surface water ponds that are used for agricultural purposes, there are two permanent surface water bodies within 3.5 miles of March AFB. Lake Perris, located 4 miles southeast of the base, provides approximately 130,000 acre feet of storage for State Project Water brought in by the California Aqueduct which runs north and east of the base. An east-west portion of the Colorado River Aqueduct is located approximately 3.5 miles south of the base. This aqueduct flows in to Lake Matthews, which is located about 10 miles west of March AFB. A very small recreation lake is located approximately 2 miles east of the base. It is maintained by the Moreno Valley Ranch homeowners association and is located just south of Iris Street and west of Lasselle Street in the City of Moreno Valley. A number of wetlands and riparian areas have been identified on and in the immediate area of the base, most are located on West March, outside OU-1. The U.S. Army Corps of Engineers determined that approximately 2.17 acres of jurisdictional wetlands exist in the Heacock Drain Channel, with .8 acres of wetlands adjacent to the Site 4 landfill. The wetlands are not continuous but are localized patches of wetland vegetation that change position each year due to high volume, high velocity storm water flow from the spring rains through these

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channels which causes scouring of the earthen bottom and sides. Manyindustrial, agricultural and domestic wells exist in the Perris Valley. Four on-base wells and two off-site wells southeast of the base were formerly used for the base water supply. One of these wells was shut down in February 1984 due to trichloroethylene (TCE) contamination, the other 3 on-base wells were shut down due to low yields. The two off-site wells are located southeast of the base in the center of Perris Valley. Although both of these wells are operable only one is occasionally used for emergency service, while the other is dormant. All base water is currently supplied by the Eastern Municipal Water District. OU-1 is made up of Sites 4,5,7,9,10,13,14,15,16,18,29,31,34, and 38. Sites 21 and 23 are included in the OU-2 ROD. Site 10 (Flightline Drainage Channel). This site is located southeast of the flightline aircraft maintenance areas. The drainage channel, which was installed prior to 1940, has reportedly received various waste oils, hydraulic fluids, diesel fuel, jet fuel, waste paints, paint strippers, paint thinners, battery acids and solvents (including TCE). The drainage channel is concrete lined (since the 1960s) up to the eastern boundary of the base where it discharges to the Penis Valley Storm Drain. The Penis Valley Storm Drain flows east approximately 2 miles, where joins another drainage and flows south approximately 6 miles to the San Jacinto River. Prior to 1974, waste disposed of in the drainage channel may have been discharged directly to the Penis Valley Storm Drain. Since 1974, the main oil/water separator (Site 9) has pretreated the runoff before its discharge off base. Primary contaminants of concern are polycyclic aromatic hydrocarbons (PAHs), which were detected in drainage ditch sediments. PAHs are a series of petroleum derivatives found in many fuel and asphalt compounds. Site 15 (Fire Protection Training Area Number 3). This site is located southeast of runway 12-30 and between Sites 5 and 7. The area was developed in 1978 and was reportedly constructed by placing an underdrain system and gravel over a clay liner. Firefighting water, solutions of Aqueous Film Forming Foam (AFFF), and residual fuel used during training exercises were drained to a formerly unlined water holding pond located adjacent to Site 15. Approximately 6,000 gallons per year of contaminated JP-4 have been burned in framing exercises since the facility was constructed in 1978. The site is no longer being used as a fire training area. The primary contaminant of concern is phenanthrene, a PAH. Selected Remedy (as described in the OU 1 ROD): For both Sites 10 and 15, the preferred method of cleanup of these soils is excavation and low-temperature thermal desorption. Need for Explanation of Significant Differences (ESD): The Record of Decision (ROD) selected remedy for soils at Sites 10 and 15 was excavation and low temperature thermal desorption. The soils were excavated and treated by bio-remediation and properly recycled to approved regulatory standards. This ESD will be entered in the Administrative Record maintained at March AFB. An Explanation of Significant Differences for Operable Unit 01 for the March Air Force Base Site was completed in August 2000. Sites that require soil remediation include Sites 4, 10, 15, 18, 31, 34. Sites that require groundwater remediation include OU1 and Sites 4,18, and 31 groundwater plumes. Sites with No Further Action Planned: Site 5,7,9,13,14,16,29,38.
OU 2: In 1980, the Installation Restoration Program (IRP) was developed by the Department of Defense as the mechanism for the CERCLA process, incorporating applicable Resource Conservation Recovery Act (RCRA) regulations as well as meeting requirements of the National Oil and Hazardous Substance Pollution Contingency Plan (NCP) (40 CFR. Part 300). The Air Force conducted a Phase I records search of 30 potentially contaminated IRP sites on the Base. There are now a total of 44 IRP sites at the former March AFB and current March ARB. The primary contaminants identified in the IRP include chlorinated solvents, fuels, polychlorinated biphenyls (PCBs), and polynuclear aromatic hydrocarbons (PAHs). Contamination by PAHs and PCBs appears to be restricted to

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surface and near-surface soils whereas fuel hydrocarbons and solvents tend to be predominant contaminants in subsurface soils and groundwater. The lead agency for cleanup of the closed portions of March AFB is the Air Force. The EPA, the California Department of Toxic Substances Control (DTSC), and the Santa Ana Regional Water Quality Control Board (RWQCB) are all support agencies for cleanup activities at the Base. The current land use and adjacent land use for most of the OU 2 Air Force Real Property Agency (AFRPA) sites is vacant land/open space with limited commercial and residential land use adjacent to some of the sites. Site 3 and the adjacent areas are undeveloped land. Site 6 contains an engineered waste cell. There is a residential area to the south and a golf course is to the east of Site 6. Site 12 was the former civil engineering yard with numerous structures. Site 12 is not currently utilized. Residential land use occurs to the east of Site 17. Air Force commercial facilities such as offices are located to the north and west of the Site 17. Site 19 is currently a part of the operating wastewater treatment plant. Structures relating to plant operations are located on-site and to the west and north. Site 20 and 26 and the adjacent areas are undeveloped land. A former water treatment plant is south of Site 26 and west of Site 20. This facility is no longer used. Site 23 is an active agricultural area, surrounded by currently vacant land to the north, south and east. Air Force land consisting of open space is west of Site 23. Site 25 and the adjacent areas is undeveloped land, with nearby residential development to the south. The three Site 35 subareas and Site 42 are former UST locations within landscaped areas adjacent to structures. The areas near Site 35a, 35b and Site 42 are still actively used as office and dormitory areas, but the Site 35c area is no longer used. Sites 30 and 40 are open space with some riparian vegetation. A residential area is located to the north and west of Site 40. The OU 2 sites are located on that portion of March AFB that may be converted to non-Air Force use. Site 23 is on private land. The anticipated land use for most of the OU 2 Air Force Real Property Agency (AFRPA) sites is commercial or industrial use. Alternative land uses have also been assessed and areas of West March could remain open space such as the Stephens' Kangaroo Rat (SKR) Conservation Area. March AFB is located in the North Perris Groundwater Basin. Currently, there are no potable groundwater resources extracted at the OU 2 AFRPA sites. The relatively thin water-bearing zone on West March is not anticipated to yield substantial quantities of water. Therefore, the potential for extraction and use of groundwater from the West March AFRPA sites is limited, both now and in the foreseeable future. Water-bearing zones producing sufficient groundwater for use may be present at AFRPA sites on the Main Base and Site 23, and should be considered a potential potable water source. Surface water is not currently used at the OU 2 AFRPA sites. Surface water areas such as at Site 6, 30 and 40 may remain as wetlands depending on future site development. OU2 consists of a number of sites. Each site is described below. Site 3 is a former 23-acre landfill located south of Cactus Avenue and west of Plummer Road. Riparian vegetation is found in the drainage areas. Site 3 is located in the 1,300-acre Stephens' Kangaroo Rat (SKR) reserve. The Site 3 landfill was used from 1954 through 1974. The landfill received household and dumpster waste, construction debris, and military waste from the Base. The military wastes included empty tanks, spent munitions, and miscellaneous wastes such as parachutes, medical waste, and fire hoses. Some of the contaminants found in the wastes included volatile organic compounds, pesticides, PCBs, PAHs, and munitions residues. The Air Force was concerned that the waste in the landfill might contaminate the soil and groundwater. After discussions with the regulatory agencies and the public, a decision was made to clean up the site by removing the landfilled waste. An interim removal action was completed in late 1995 and early 1996. Approximately 223,200 cubic yards of landfilled materials and soil were removed. Excavated materials from Site 3 to be transported to and disposed of

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in the engineered waste cells at Site 6 were tested for organic and inorganic constituents during the remedial investigation and monitored during the removal action according to approved work plans. Site 6 is located on West March, north of the Air Force Village West residential development, south of Van Buren Boulevard, east of Plummer Road, and west of Air Force Village West Drive. The landfill comprised three discrete areas: Site 6a (approximately 15 acres) the location of the main former landfill area; Site 6b Quarry (approximately 0.6 acre) the location of a former quarry; and Site 6b Pond (approximately 2.6 acres) the location of a pond. Site 6 was used by March AFB from the early 1950s to the early 1 980s for disposal of household waste and construction debris. Polynuclear aromatic hydrocarbons (PAHs), PCBs, pesticides, herbicides, and dioxins were found in samples of soil and water collected during the OU2 RI. An interim, removal action was conducted in 1995; approximately 63,000 cubic yards of waste were removed from Site 6a and temporarily stockpiled. Waste at Site 6a was removed from the vadose zone and beneath groundwater including soil contaminated with petroleum hydrocarbons. Waste was also removed from the pond, including debris and tar. Two engineered waste cells, over 12 acres in size, were constructed in the Site 6a area. No confirmation samples were taken of soils and bedrock under Site 6a because the bottom of the excavation was below the water table and sample results would not be meaningful. This site was treated as a closure in place rather than a clean closure. Stockpiled waste from Site 6a was landfilled back into the engineered waste cells over Site 6a. Excavated materials from Site 6a to be disposed of in the engineered waste cells at Site 6 were tested for organic and inorganic constituents during the remedial investigation and monitored during the removal action according to approved work plans. Site 12, the 20-acre Base Civil Engineering Yard, is located north of MacDill Street, between Lackland Avenue and Travis Avenue. The area is developed with numerous structures and is partially paved with asphalt. From the l950's to 1996, Site 12 was the civil engineering yard for general maintenance operations for March AFB. It included a carpentry shop, electrical shop, paint shop, pesticide shop, and storage areas for heavy equipment. These shops used and stored a variety of hazardous materials including paints and paint-related products, pesticides, solvents, acids, and drums labeled hazardous waste. During the OU2 RI, PAHs and hexavalent chromium were found in soil samples. The contaminant 1,1-dichloroethene (1, 1-DCE) was found in soil vapor samples in a small area in deeper soils near Building 2507. Groundwater beneath Site 12 has become impacted by trichloroethene (TCE) and tetrachloroethene (PCE). The groundwater contamination is in a small area and is only slightly above maximum contaminant levels (MCLs). Periodic monitoring of the groundwater to observe changes in contaminant concentrations is being conducted. After discussions with the regulatory agencies and the public, a limited interim removal action was taken in 1996 to ensure that the site could be used for industrial purposes by removing soils contaminated with PAHs and hexavalent chromium at the northwest portion of Site 12. Approximately 2,000 cubic yards of non-hazardous contaminated soil was excavated from a small area in the northwest portion of the site and placed in the engineered waste cells at Site 6. Excavated materials from Site 12 to be transported to and disposed of in the engineered waste cells at Site 6 were tested for organic and inorganic constituents during the remedial investigation and prior to excavation activities for the removal action according to approved work plans. Site 17 is a former Base swimming pool located on the Main Base on U Street between DeKay and K Streets. The area is vacant land, adjoining Base housing to the east and south. The former swimming pool at Site 17 was closed in the 1 970s. After it was closed, the pool was used as a disposal site and the wastes were covered with soil. After discussions with the regulatory agencies and the public, a decision was made to clean the site by removing the waste. The pool and its contents were removed

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during a 1994 interim removal action. The wastes were taken off the Base for disposal. After the interim removal action, low levels of PCBs were still detected in soils at least 8 feet beneath the ground surface. The pool excavation was filled with clean soil, leaving the PCBs in place. No PCB contamination has been found in the groundwater and the PCBs are not expected to migrate to groundwater. Confirmation sampling conducted after the interim removal action demonstrated that PCBs remain at the site at levels of concern to human health Site 19 is about 7 acres in size, located at the southern end of West March, east of the active wastewater treatment plant. The site is generally vacant land with four concrete lined drying beds in the western portion of the site. Site 19 contains the four active lined sludge-drying beds and three inactive, unlined sludge-drying beds associated with the wastewater treatment plant. The plant was constructed in 1941 and used to process the wastewater from Camp Haan and March AFB. A total of 10 sludge-drying beds have historically been used at the site. Three of these beds have been backfilled. In 1990 when the plant was upgraded, four lined drying beds were constructed at the location of previously unlined beds. In the past, wastewater treatment sludge was spread out in the unlined drying beds to dry. When dry, the sludge was removed from the drying beds. Recently, the dried sludge has been removed from the Base for disposal. Past disposal practices are unknown. PAHs, PCBs, hexavalent chromium, and thallium were found in soil samples in the area of the unlined sludge beds at levels above residential PRGs. Site 20 is located adjacent to the southwest portion of March AFB, on the property acquired by the Department of Veterans Affairs from the Air Force in the 1970s. Site 20 is a former landfill about 7 acres in size used between 1958 and 1965 as a disposal site for household waste and construction debris. Some of the chemicals found in the soils at Site 20 included PAHs, dieldrin, PCBs, and 1 ,4-dichlorobenzene. The Air Force was concerned the waste in the landfill could contaminate soil and groundwater. After discussions with the regulatory agencies and the public, a decision was made to clean up the site by removing the landfilled waste. The interim removal action at Site 20 was conducted in conjunction with the removal of dried sludge at Site 26a and 26b Dried sludge of Site 26b covered a portion of Site 20. Approximately 116,000 cubic yards of non-hazardous soil, debris, and dried sludge were removed from Sites 20 and 26 in 1996 and placed in the engineered waste cells at Site. Excavated materials from Site 20 to be transported to and disposed of in he engineered waste cells at Site 6 were tested for organic and inorganic constituents during the remedial investigation and monitored during the removal action according to approved work plans According to the As-Built Construction Report OU2, Site 6a, all materials from Site 20 placed in the Site 6 engineered waste cells met the requirements of CCR Title 23, Section 2523 (currently CCR Title 27, Section 20220) for a non-hazardous solid waste landfill. After the waste was removed from Site 20, confirmation samples from beneath the former landfill were tested. The results confirmed that the site had been cleaned to levels protective of human health and the environment. No restriction on future use of the land is required. Site 22 is a suspected former landfill east of and adjacent to Interstate 215. The original 7-acre area of Site 22 was expanded to 15 acres by extending the northern site boundary to ensure all potential areas of concern were investigated. The location of the landfill was based on limited evidence. Investigations could not locate any landfllled materials or debris. Geophysical surveys were used to fmd buried metal or disturbed soils. Soil gas sampling was also conducted at this site. Finally, soil and groundwater were sampled. No contaminants were found in any of the samples and the geophysical surveys found no buried waste. This evidence showed that a landfill did not exist in this area. This site was investigated during the OU2 remedial investigation and levels of contamination requiring remedial action were not identified. There was no risk assessment completed on Site 22 because no

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contaminants were found and the site poses no risk to human health or the environment. No restriction on future use of the land is required. Site 23 is located off-Base to the east, near the intersection of Nandina Avenue andHeacock Street in the City of Moreno Valley. Between 1938 and 1977, Site 23 was a 1-acre holding pond for wastewater that had been treated and used for irrigation of agricultural crops. In 1991, the pond was filled in, and it and the surrounding areas were leveled. The land is now used as a commercial sod farm and irrigated with reclaimed water from the Moreno Valley wastewater treatment plant. This site was investigated during the OU1 remedial investigation and no contamination requiring remedial action was identified. There was no risk assessment completed on Site 23 because no contaminants were found and the site poses no risk to human health or the environment. No restriction on future use of the land is required. Site 24 is a former 3-acre landfill, west of Site 19. Site 24 was reportedly used between 1941 and 1965 to dispose of household waste and military waste. A small amount of soil from bullet backstop berms may have been placed in the landfill as well as some ash from an incinerator. Some of the contaminants found in the waste included PAHs, PCBs, antimony, barium, and cadmium. The Air Force was concerned that the waste in the landfill could contaminate groundwater. After discussions with the regulatory agencies and the public, a decision was made to clean up the site by removing the landfilled waste. In December 1996, approximately 19,300 cubic yards of non-hazardous, landfilled waste was removed and placed in the engineered waste cells at Site 6. Excavated materials from Site 24 to be transported to and disposed of in the engineered waste cells at Site 6 were tested for organic and inorganic constituents during the remedial investigation and monitored during the removal action according to approved work plans. Site 25 covers approximately 33 acres and is located south of Cactus Avenue. Site 25 was used in the past for open air detonation and burning of munitions. Three areas with shallow trenches were used to bury munitions residue after destruction. Some of the contaminants found in the soils at this site included nickel, l,3,5-trinitrobenzene, nitroglycerin, benzo(a)pyrene, and RDX, all of which are munition residues. Additionally, 1,1 -dichloroethene was also found. The Air Force was concerned that the contaminants in soil would cause groundwater contamination. After discussions with the regulatory agencies and the public, a decision was made to clean up the site by removing the debris and contaminated soils. Approximately 3,000 cubic yards of non-hazardous waste from the trenches and contaminated soils were removed and disposed of in the engineered waste cells at Site 6. Excavated materials from Site 25 to be transported to and disposed of in the engineered waste cells at Site 6 were tested for organic and inorganic constituents at a rate of about 1 sample for every 200 cubic yards of excavated materials during the removal action. Testing was also performed as part of the remedial investigation. Site 26 covers approximately 3 acres and is located in the southwest portion of March AFB. Site 26 is subdivided into two areas, Site 26a and 26b. Site 26b is located over a portion of the Site 20 landfill. Site 26a is located on property controlled by the AFRPA and Site 26b is on the property of the Department of Veterans Affairs. Site 26 was used for disposal of lime sludge that was a waste from the treatment of drinking water for March AFB. From 1941 to 1984, the water treatment plant treated Colorado River water used to supplement the drinking water supply for the Base. Arsenic from the treated Colorado River water was found in the lime sludge at low levels. After discussions with the regulatory agencies and the public, a decision was made to clean up the site by removing the sludge. As mentioned in the description of the landfill at Site 20, approximately 116,000 cubic yards of non-hazardous soil and dried sludge were removed from Sites 20 and 26 in 1996 and disposed of in the engineered waste cells at Site 6. Excavated materials from Site 26 to be transported to and disposed of in the engineered waste cells at Site 6 were tested for organic

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and inorganic constituents during the remedial investigation and monitored during the removal action according to approved work plans. Site 30 covered approximately 40 acres, south of Alessandro Boulevard and west of Interstate 215. Site 30 is located in the 1,300 acre SKR reserve. There is no evidence that Site 30 ever operated as a March AFB-controlled landfill, but illegal dumping of domestic waste from the surrounding community has occurred and some minor amounts of construction debris were found. Soil and groundwater samples taken at the site did not detect contaminants at levels not protective of human health. After discussions with the regulators and the public, a decision was made to clean up the site by removing the domestic and construction debris. Domestic and construction debris was, removed from the site in April 1997 and disposed of off the Base. The Air Force has installed gates on access roads to prevent vehicular traffic to the site. Warning signs were placed in several areas, and gates remain padlocked to help prevent access by unauthorized persons. Site 35 consisted of three subareas (Sites 35a, 35b, and 35c) located in the former 15th Air Force Headquarter complex on West March. The subareas were locations of former underground storage tanks (USTs) associated with. Buildings 3409 (Site 35a), 3417/34 18 (Site 35b), and 3406 (Site 35c). Site 35a, a former 8,000-gallon fuel oil tank, was located west of Allen Avenue and south of 11th street, east of Building 3409. Site 35b, two former diesel tanks of 6,650-gallon and 3,500-gallon, was located between Building 3417 and 3418, west of Allen Avenue and Bundy Avenue. Site 35c, a former 1,000-gallon diesel tank, was located north of 5th Street and west of Dalla Avenue, east of Building 3406. All tanks have been removed and the locations closed without restrictions in accordance with state and county regulations. Fuel leaks have been associated with the tanks at Site 35. Sites 35a and 35b were investigated during the OU2 remedial investigation and other studies and levels of contamination requiring remedial action were not identified. After discussions with the regulatory agencies, the Air Force decided to clean up the soil by bioventing at Site 35c where fuel had leaked. Bioventing has reduced diesel fuel contamination to levels protective of human health and the environment at Site 35c. No restriction on future use of the land is required.
Site 40 covers approximately 49 acres on West March, north of Van Buren Boulevard and west of Plummer Road. The most prominent feature at the site is the abandoned quarry, containing a pond with riparian vegetation. The pond is replenished by groundwater and by surface flow from an intermittent stream channel entering the pond from the west. Site 40 is located in the 1,300 acre SKR reserve. Site 40 was used as a disposal location for drums, construction debris, battery casings, and motor vehicle parts. After discussions with the regulatory agencies, a decision was made to complete an expedited cleanup of the area exposed by the erosion and other debris at the site. The time-critical removal action completed in 1994 included removal of the drums, miscellaneous waste, and contaminated soil. Hazardous waste from the site was taken off the Base for proper disposal. Approximately 6,800 cubic, yards of non-hazardous materials were disposed of at the Site 6 engineered waste cells. Excavated materials from Site 40 to be transported to and disposed of in the engineered waste cells at Site 6 were tested for organic and inorganic constituents at a rate of about one sample for every 100 cubic yards of excavated materials during the removal action. Testing was also performed as part of the remedial investigation. Building 3404 is located on less than one acre near the intersections of 1 1th Street and Davis Avenue on West March. Transformers located in Building 3404 reportedly leaked oils containing PCBs onto the floor of the transformer room. These oils were also spilled onto the soil surrounding the building. After discussions with the regulatory agencies and the public, a decision was made to clean up the area outside of Building 3404 by removing the contaminated soil. In the interim removal action, the contaminated soils were excavated and taken offsite for proper disposal. A total of 330 tons of

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contaminated soils were removed from the site. The PCB concentrations were low enough to allow disposal of 292 tons of contaminated soils as non-hazardous waste. An additional 38 tons was disposed of off the Base as hazardous waste. Clean fill was placed in the excavation to grade and a gravel cover was placed on top of the previously excavated area. Confirmation sampling conducted after the interim removal action confirmed that the site had been cleaned to levels protective of human health and the environment. No restriction on future use of the land is required. Transformer oils may be present in the concrete floor of Building 3404. The Air Force attempted to remove the PCBs from the concrete. Minimal levels of PCBs were left and have been encapsulated. The concrete is not addressed in this AFRPA OU2 ROD because building interiors are not regulated under CERCLA. The current landowner, the County of Riverside, has entered into a land use covenant with the State that restricts use of the building to industrial activities and contains other measures to prevent exposure to residual contamination. The current land use and adjacent land use for most of the OU2 AFRPA sites is vacant land/open space with limited commercial and residential land use adjacent to some of the sites as discussed below. Site 3 and the adjacent areas are undeveloped land. Site 6 contains an engineered waste cell. There is a residential area to the south and a golf course is to the east of Site 6. Site 12 was the former civil engineering yard with numerous structures. Site 12 is not currently utilized. Residential land use occurs to the east of Site 17. Air Force commercial facilities such as offices are located to the north and west of the Site 17. Site 19 is currently a part of the operating wastewater treatment plant. Structures relating to plant operations are located on-site and to the west and north. Site 20 and 26 and the adjacent areas are undeveloped land. A former water treatment plant is south of Site 26 and west of Site 20. This facility is no longer used. Site 23 is an active agricultural area, surrounded by currently vacant land to the north, south and east. Air Force land consisting of open space is west of Site 23. Site 25 and the adjacent areas is undeveloped land, with nearby residential development to the south. The three Site 35 subareas and Site 42 are former UST locations within landscaped areas adjacent to structures. The areas near Site 35a, 35b and Site 42 are still actively used as office and dormitory areas, but the Site 35c area is no longer used. Sites 30 and 40 are open space with some riparian vegetation. A residential area is located to the north and west of Site 40. The OU2 sites other than site 23 discussed in this AFRPA OU2 ROD are located on that portion of March AFB that may be converted to non-Air Force use. Site 23 is on private land. The anticipated land use for most of the OU2 AFRPA sites is commercial or industrial use. Alternative land uses have also been assessed and areas of West March could remain open space such as the SKR Conservation Area. March AFB is located in the North Perris Groundwater Basin. Currently, there are no potable groundwater resources extracted at the OU2 AFRPA sites. The relatively thin water-bearing zone on West March is not anticipated to yield substantial quantities of water. Therefore, the potential for extraction and use of groundwater from the West March AFRPA sites is limited, both now and in the foreseeable future. Water-bearing zones producing sufficient groundwater for use may be present at AFRPA sites on the Main Base and Site 23, and should be considered a potential potable water source. Surface water is not currently used at the OU2 AFRPA sites. Surface water areas such as at Site 6, 30 and 40 may remain as wetlands depending on future site development. A Record of Decision (ROD) for OU2 was completed May 11, 2004. A ROD addressing OU2 was completed in September 2005. Operable Unit (OU) 4: A total of three IRP sites (IRP Sites 21, 41, and 44), three AOCs (Water Tower 3410, Water Tank 6601, and the former Base Hospital and Dental Clinic), and one RFA site (Site L) are addressed in this OU4. Site 21 is off base approximately 1.5 miles south of the southern extension of the active March ARB runway. Although never physically part of March AFB, the site is

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considered to be part of the former base for purposes of the IRP because treated wastewater produced on base was held in this off-base pond. John Cordures, property owner until his death, used the water for irrigation of surrounding agricultural land from 1941 to 1946 and again from 1955 to 1984. The estate was sold to Ross Department Stores in 2001. The site is near the intersection of Morgan Street and Webster Avenue, in the City of Perris. Site 21 encompasses 1.5 acres and is part of a landscaped berm and below-grade parking area for warehouse trucks associated with a Ross warehouse distribution facility. The general surface-water drainage in the area is to the east following the gently sloping terrain (surface gradient at the site is approximately 20 to 40 feet per mile). Bedrock was not encountered during the investigation phases at Site 21. Groundwater at Site 21 is at a depth of more than 150 feet below ground surface (bgs) and the general groundwater flow direction is to the south and southeast. Site 21 was used from 1941 to 1946, and again from 1955 to 1984, to hold treated wastewater from the base. Sanitary and industrial wastewater received primary and secondary treatment on the base prior to discharge into this holding pond. The treated effluent was held in the pond and used for irrigation of the surrounding agricultural land. The boundaries of the effluent pond were physically well defined by the pond's berm during the 1993 OU1 Remedial Investigation/Feasibility Study (RI/FS). At that time the site covered an area of approximately 2.2 acres and was being used by private parties as an illegal dump. In approximately 1998, the berm was removed, and the site was incorporated into the surrounding sod farm. In 2001, the land was sold and the former pond area now consists of a landscaped berm on the west side of the site and a truck parking area that lies approximately 8 feet below grade on the east side. Based on historic use, the primary contaminants of concern at Site 21 include metals, volatile organic compounds (VOCs), and pesticides. Site 21 is part of a Ross warehouse distribution facility in the city of Perris. Adjacent and surrounding land uses consist of commercial/industrial development, and some land is in agricultural production. Although much of the surrounding property is currently agriculture, other properties are zoned for light industrial/commercial. As development occurs, agriculture zoning will likely change to general industrial. Site 41 is approximately 1 mile south of State Highway 58 and 11 miles east of Kramer Junction (the intersection of U.S. Highway 395 and State Highway 58) in San Bernardino County, California. Structures currently remaining at the site include a concrete bunker no longer in use. The general surface water drainage is to the northeast following the very gently sloping terrain (surface gradient at the site is approximately 20 to 40 feet per mile). Depth to beneficial groundwater is approximately 300 feet bgs. However, perched zone water is found between 100 and 150 feet bgs at nearby sites. A regional hardpan soil, approximately 3 to 4 feet thick at a depth of approximately 34 feet bgs, is reported in the area. The Air Force obtained right of entry for an approximate 315-acre parcel from the Bureau of Land Management (BLM) in the late 1950s for construction and operation of a radio relay station for use by George AFB. The parcel was transferred to Edwards AFB in 1963 and to March AFB in February 1968. The Radio Relay Annex was declared excess and was scheduled for deactivation in October 1968. The station facilities included a septic system, storage tanks for water and petroleum products, 4 miles of runway, a radio tower, a water well, an aboveground bunker, and several support buildings. The Air Force closed the station in the mid-1980s. Investigations and cleanup actions were conducted between February 1995 and May 1996 and included identification and removal of asbestos-containing material and lead-based paint, destruction of the water-supply well, removal of underground storage tanks (USTs) (oil, water, and septic) and contaminated soil, and confirmation sampling. Small amounts of diesel fuel leaked from the USTs. Based on historic use, the primary contaminant of concern at the site is total

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petroleum hydrocarbons (TPH) diesel fuel. Site 41 is in a remote area of the Mojave Desert. The Hawes site extends across 315 acres of desert land. The site is in the process of being transferred from the DOD back to the BLM, and the site will likely remain vacant due to its remote location and reversion to BLM control. Site 44 is in the central portion of the March ARB, east of the intersection of Graeber Street and Meyer Drive. Site 44 includes a 110-foot-tall, 200,000-gallon water tower, two large water storage tanks, and several buildings used by March ARB water system maintenance personnel. The area is characterized by relatively flat topography. A concrete-lined drainage ditch, just north of the site, flows eastward to the Heacock Storm Drain that drains south along the eastern perimeter of the former base. Groundwater at Site 44 is estimated to be approximately 30 feet bgs. Groundwater flow direction in this area is generally to the south and southeast. The water tower at Site 44 utilized a valve controller with a 6-inch mercury pot for water flow control. Past spills from the mercury pot caused mercury contamination of soils beneath and surrounding the valve controller. The flow controller at the water tower was in a subsurface valve box, 12 feet below grade. During a construction project to place a concrete floor in the below-grade box, approximately 80 cubic feet of soil were removed and stockpiled south and east of the valve box. In November 1995, the Air Force contracted to characterize the valve box and surrounding area for elemental mercury contamination. Based on the results of initial investigations at Site 44, the Air Force initiated a removal action. Soil was excavated in several discrete areas around the water tower. The primary soil removal areas were the valve box and surface soils in areas adjacent to the borings that identified "hot spots" of contamination. The excavated soil was segregated and packaged for off-site disposal. Once excavation of the valve pit was completed, the site was restored by filling the excavated area with sand to approximately 3 feet below the valve. A 6-inch-thick concrete floor was installed in the bottom of the valve pit. Land uses on adjacent and surrounding properties are exclusively industrial and commercial. As Site 44 will remain Air Force property, Site 44 is expected to stay industrial/commercial in the foreseeable future. Water Tower 3410 is an aboveground water storage tank on Former March AFB at the intersection of Plummer Road and 11th Street. Water Tower 3410 is in an area characterized by relatively flat topography, with a gentle slope to the east/northeast. No surface water bodies or major surface water drainages are associated with the site. Groundwater levels underlying Water Tower 3410 are between approximately 33 and 48 feet bgs. The groundwater flow direction is to the east. Although Water Tower 3410 was not specifically included in the Basewide RI/FS Work Plan, due to the presence of mercury pot water flow controllers at other March water storage facilities and the similarity of Water Tower 3410 with Water Tower 407 (Site 44), it was suspected that Water Tower 3410 might also have mercury-contaminated soils. March ARB Department of Public Works was contacted to determine if a mercury vault ever existed at the site. Interviews with Department personnel indicated that the building never contained a mercury vault. The only mercury controls at Water Tower 3410 are those that control associated pumps. Four aboveground controls are attached to the water tower rather than in a vault and contain only small amounts of elemental mercury. Water Tower 3410 is in an area characterized by industrial/commercial land use intermixed with vacant parcels. Adjacent and surrounding land use is also a mix of industrial/commercial use and vacant parcels. March Joint Powers Authority (MJPA) plans for the area, including Water Tower 3410, are for an industrial/business park. Water Tank 6601 is an aboveground storage tank north of Van Buren Boulevard and west of Plummer Road, west of 1-215. Water Tank 6601 is at an elevation of approximately 1,660 feet above mean sea level. The site is characterized by highly dissected upland topography and consists of highly eroded gullies and exposures of weathered

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bedrock. The primary flow of surface water in the vicinity of Water Tank 6601 is to the east. One primary intermittent stream channel drains to the east near the facility. The site is underlain by shallow surface soils, with a maximum thickness of soil only tens of feet thick. Based on information presented by Tetra Tech in the OU2 RI/FS, just south of the water tank, groundwater is encountered in weathered bedrock at depths ranging from 10 to 40 feet bgs. Groundwater flow is generally to the east. Water Tank 6601 is an active, 200,000-gallon water tank constructed in approximately 1942, with valves, piping, and electronic controls inside a fenced area with a concrete floor and a metal roof. The enclosure was constructed in the mid 1980s, in response to repeated vandalism at the site. Each incidence of vandalism resulted in releases of elemental mercury at the site due to breakage of a reservoir or "mercury pot." Some of the elemental mercury was recovered after each incident; however, no formal cleanup actions were performed. A cage was constructed to protect the controls from additional vandalism. The mercury control was removed and replaced with controls without mercury prior to the OU4 RI/FS investigation. Water Tank 6601 is in an undeveloped area, which is fenced. Adjacent and surrounding land use is mixed industrial/ vacant. Water Tank 6601 is expected to remain industrial. MJPA plans for the adjacent and surrounding land are for industrial/commercial development. The former base Hospital and Dental Clinics are in the northeast corner of the former base, near the intersection of Cactus Avenue and Heacock Street. The main Hospital building is five stories and the Dental Clinic is a one-story structure. The surface topography in and around the site is relatively flat with a gentle slope (surface gradient at the site is approximately 20 to 30 feet per mile). Major drainage features lie north and east of the site and consist of intermittent drainage channels (Cactus Channel Storm Drain and Heacock Storm Drain). There are no major drainages across the site, and there are no perennial water bodies near the site. While groundwater was not part of the investigation, groundwater is reported to be 25 to 30 feet bgs in the area of the former hospital and dental clinic. Groundwater flow direction is to the south and east. Construction of the Hospital was completed in 1966 and modified in subsequent years. The latest addition was completed in 1974. The original construction of the Dental Clinic was completed in 1985. A sewer main extends from the Hospital/Dental Clinic complex, south along the eastern base boundary to the last manhole before the connection of the hospital lines with the "old trunk line" from western portions of the March ARB. The sewer line, which services both the Hospital and Dental Clinic, was first brought on line with completion of the original hospital building. Two primary lines collect effluent from the complex. The two lines ultimately empty into the old sewer main that flows directly south to the current lifting station, from which sewage is transferred around the south end of the active runway to the current wastewater treatment plant. The former base Hospital and Dental Clinic are in an area characterized by institutional (i.e., medical) land use. Adjacent and surrounding land use is a mix of residential, commercial, a small amount of vacant property and land in agricultural use, and a small corridor of public facilities to the east of the Hospital for an electrical transmission line easement. MJPA plans for the Hospital/Dental Clinic site are for similar reuse. Site L, formerly a swimming pool at the Non-Commissioned Officer (NCO) Club, is east of Riverside Drive and north of Meyer Drive. The site is outside the boundary of March ARB that was established as a result of the realignment of March AFB in May 1996. It is part of the land identified as available for transfer by the AFRPA. Site L is in an area characterized by relatively flat topography. No major drainages are associated with the site. Groundwater levels at the site are approximately 26 feet bgs. The groundwater flow direction is to the southeast. The swimming pool at Site L was reportedly constructed in 1953 along with the NCO Club. After decommissioning

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MARCH AIR FORCE BASE (Continued) **1000169261**

at an unspecified time, it was used as a repository for a variety of wastes, some potentially hazardous. The pool and wastes were covered with soil, and the area was allowed to become overgrown with grass and weeds. The facility was abandoned and a chain-link fence restricted access to the former pool. In 1993, the pool was identified as an AOC during a comprehensive RFA/Expanded Source Investigation (ESI), which concluded that the pool was filled with a variety of wastes, including waste soils, solvents, and PCBs. In 1994, as part of the RFA investigation, a soil gas survey was conducted to screen for the presence of VOCs. No VOCs were detected above the laboratory reporting limits. Site L is currently open space (parking lot) with no structures, and is bordered on the north by vacant land and on the south by a parking area adjacent to Meyer Drive. The NCO Club is to the east of Site L, and the U.S. Army Reserve Center, with associated landscaping and parking is to the west. Surrounding land uses include institutional/medical, commercial, public facilities/recreation, and vacant land. The MJPA plans for Site L and the surrounding land are commercial in nature. A portion of the parcel in which Site L is located is currently leased to a catering business. A Record of Decision addressing OU4 was completed in September of 2005.

CERCLIS Assessment History:

Action Code:	001
Action:	DISCOVERY
Date Started:	/ /
Date Completed:	02/01/85
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Facilities
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	PRELIMINARY ASSESSMENT
Date Started:	/ /
Date Completed:	02/01/87
Priority Level:	Low priority for further assessment
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Facilities
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	SITE INSPECTION
Date Started:	/ /
Date Completed:	06/01/87
Priority Level:	Low priority for further assessment
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Facilities
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

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MARCH AIR FORCE BASE (Continued) **1000169261**

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	HAZARD RANKING SYSTEM PACKAGE
Date Started:	/ /
Date Completed:	06/01/87
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	PROPOSAL TO NATIONAL PRIORITIES LIST
Date Started:	/ /
Date Completed:	07/14/89
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	FINAL LISTING ON NATIONAL PRIORITIES LIST
Date Started:	/ /
Date Completed:	11/21/89
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	Notice Letters Issued
Date Started:	/ /
Date Completed:	02/07/90
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

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Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR FORCE BASE (Continued) **1000169261**

Action Code: 001
Action: INTERAGENCY AGREEMENT NEGOTIATIONS
Date Started: 02/07/90
Date Completed: 09/27/90
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Alternate
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: FEDERAL INTERAGENCY AGREEMENT
Date Started: 09/27/90
Date Completed: 09/27/90
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004
Action: FEDERAL FACILITY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 01/24/92
Date Completed: 04/30/95
Priority Level: Not reported
Operable Unit: WEST MARCH - SOILS/GW
Primary Responsibility: Federal Facilities
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: FEDERAL FACILITY REMEDIAL DESIGN
Date Started: 04/07/96
Date Completed: 04/18/96
Priority Level: Not reported
Operable Unit: EAST MARCH - SOILS/GW
Primary Responsibility: Federal Facilities
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: FEDERAL FACILITY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 09/27/90
Date Completed: 06/20/96

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MARCH AIR FORCE BASE (Continued) **1000169261**

Priority Level:	Not reported
Operable Unit:	EAST MARCH - SOILS/GW
Primary Responsibility:	Federal Facilities
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	RECORD OF DECISION
Date Started:	/ /
Date Completed:	06/20/96
Priority Level:	Not reported
Operable Unit:	EAST MARCH - SOILS/GW
Primary Responsibility:	Federal Facilities
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	Explanation Of Significant Differences
Date Started:	/ /
Date Completed:	08/24/00
Priority Level:	Not reported
Operable Unit:	EAST MARCH - SOILS/GW
Primary Responsibility:	Federal Facilities
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	FEDERAL FACILITY FIVE YEAR REVIEW
Date Started:	09/30/03
Date Completed:	11/19/03
Priority Level:	Not reported
Operable Unit:	EAST MARCH - SOILS/GW
Primary Responsibility:	Federal Facilities
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	004
Action:	RECORD OF DECISION
Date Started:	/ /
Date Completed:	05/11/04
Priority Level:	Not reported
Operable Unit:	WEST MARCH - SOILS/GW
Primary Responsibility:	Federal Facilities
Planning Status:	Primary

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MARCH AIR FORCE BASE (Continued) **1000169261**

Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: FEDERAL FACILITY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 09/27/90
Date Completed: 09/29/05
Priority Level: Not reported
Operable Unit: BASEWIDE
Primary Responsibility: Federal Facilities
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 09/29/05
Priority Level: Not reported
Operable Unit: BASEWIDE
Primary Responsibility: Federal Facilities
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 005
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 09/30/05
Priority Level: Not reported
Operable Unit: WEST MARCH - SOILS/GW
Primary Responsibility: Federal Facilities
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: FEDERAL FACILITY FIVE YEAR REVIEW
Date Started: / /
Date Completed: 09/30/09
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Facilities
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

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MARCH AIR FORCE BASE (Continued) **1000169261**

Action Code:	001
Action:	Restoration Advisory Board
Date Started:	01/01/93
Date Completed:	/ /
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Facilities
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	FEDERAL FACILITY REMEDIAL ACTION
Date Started:	03/05/96
Date Completed:	/ /
Priority Level:	Not reported
Operable Unit:	EAST MARCH - SOILS/GW
Primary Responsibility:	Federal Facilities
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	005
Action:	FEDERAL FACILITY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started:	10/30/05
Date Completed:	/ /
Priority Level:	Not reported
Operable Unit:	SITE 8 & 36
Primary Responsibility:	Federal Facilities
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Federal Register Details:

Fed Register Date:	11/21/89
Fed Register Volume:	54
Page Number:	48184

Fed Register Date:	07/14/89
Fed Register Volume:	54
Page Number:	29820

Click this hyperlink while viewing on your computer to access
90 additional US CERCLIS Financial: record(s) in the EDR Site Report.

RCRA-LQG:

Date form received by agency:	10/22/2014
Facility name:	MARCH AIR RESERVE BASE
Facility address:	610 MEYER DR

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MARCH AIR FORCE BASE (Continued) **1000169261**

MARCH ARB, CA 92518
EPA ID: CA4570024527
Mailing address: MEYER DR BLDG 2403
MARCH ARB, CA 92518
Contact: CRAIG R HUNTER
Contact address: MEYER DR BLDG 2403
MARCH ARB, CA 92518
Contact country: Not reported
Contact telephone: (951) 655-5082
Contact email: CRAIG.HUNTER.1@US.AF.MIL
EPA Region: 09
Land type: Federal
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: US AIR FORCE
Owner/operator address: GRAEBER ST, BLDG 470
MARCH ARB, CA 92518
Owner/operator country: Not reported
Owner/operator telephone: (951) 655-4665
Legal status: Federal
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1947
Owner/Op end date: Not reported

Owner/operator name: COL. RUSSELL A MUNCY
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Federal
Owner/Operator Type: Operator
Owner/Op start date: 11/01/2013
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No

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MARCH AIR FORCE BASE (Continued) **1000169261**

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Universal Waste Summary:
Waste type: Batteries
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: Yes
Generated waste on-site: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D011
. Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

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MARCH AIR FORCE BASE (Continued) **1000169261**

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Historical Generators:
Date form received by agency: 03/20/2013
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D011
. Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005

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Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR FORCE BASE (Continued) **1000169261**

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 07/15/2010
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

. Waste code: 181
. Waste name: 181

. Waste code: 214
. Waste name: 214

. Waste code: 223
. Waste name: 223

. Waste code: 281
. Waste name: 281

. Waste code: 342
. Waste name: 342

. Waste code: 343
. Waste name: 343

. Waste code: 352
. Waste name: 352

. Waste code: 461
. Waste name: 461

. Waste code: 541
. Waste name: 541

. Waste code: 792
. Waste name: 792

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

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MARCH AIR FORCE BASE (Continued) **1000169261**

. Waste code: D011
. Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 03/26/2008
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR FORCE BASE (Continued) **1000169261**

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

. Waste code: D021
. Waste name: CHLOROBENZENE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U188
. Waste name: PHENOL

. Waste code: U227
. Waste name: 1,1,2-TRICHLOROETHANE (OR) ETHANE, 1,1,2-TRICHLORO-

Date form received by agency: 02/08/2006
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR FORCE BASE (Continued) **1000169261**

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

Date form received by agency: 02/25/2004
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D011
. Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

Date form received by agency: 04/10/2002
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR FORCE BASE (Continued) **1000169261**

. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: P098
. Waste name: POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)

Date form received by agency: 10/12/2000
Site name: MARCH ARB CA
Classification: Large Quantity Generator

Date form received by agency: 07/14/2000
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR FORCE BASE (Continued) **1000169261**

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 03/04/1999
Site name: MARCH ARB, CA
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

Date form received by agency: 03/26/1996
Site name: MARCH AFB, CA
Classification: Large Quantity Generator

Date form received by agency: 03/31/1994
Site name: MARCH AIR FORCE BASE, CA
Classification: Large Quantity Generator

Date form received by agency: 03/30/1992
Site name: MARCH AIR FORCE BASE
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: FR - 262.30-34.C
Area of violation: Generators - General
Date violation determined: 04/27/1995
Date achieved compliance: 04/27/2000
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/28/1995
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/05/1984

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR FORCE BASE (Continued) **1000169261**

Date achieved compliance: 04/04/1995
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/18/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 11/02/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/06/1996
Evaluation: FOLLOW-UP INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/04/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/27/2000
Evaluation lead agency: EPA

Evaluation date: 03/05/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/04/1995
Evaluation lead agency: EPA

US ENG CONTROLS:
EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Actual Date: 09/30/2005
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 08/24/2000
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Bioremediation (Ex-Situ)

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR FORCE BASE (Continued) **1000169261**

Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Discharge
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Extraction
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Liquid Phase Carbon Adsorption
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Other, (N.O.S.)
Contact Name: Not reported
Contact Phone and Ext: Not reported

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR FORCE BASE (Continued) **1000169261**

Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Cap
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Disposal
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Excavation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Impermeable Barrier
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Low Temperature Thermal Desorption
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR FORCE BASE (Continued) **1000169261**

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Operations & Maintenance (O&M)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Recycling
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Soil Vapor Extraction (in-situ)
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/29/2005
Operable Unit: 04
Contaminated Media : Groundwater
Engineering Control: No Action
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 003
Action Name: RECORD OF DECISION

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR FORCE BASE (Continued) **1000169261**

Action Completion date: 09/29/2005
Operable Unit: 04
Contaminated Media : Soil
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/29/2005
Operable Unit: 04
Contaminated Media : Soil
Engineering Control: No Action
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 005
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2005
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: No Action
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 005
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2005
Operable Unit: 02
Contaminated Media : Soil
Engineering Control: No Action
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

US INST CONTROL:
EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Inst. Control: Covenant
Actual Date: 09/30/2005
Complet. Date: 09/29/2005
Operable Unit: 04

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR FORCE BASE (Continued) **1000169261**

Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Inst. Control: Deed Notices
Actual Date: 09/30/2005
Complet. Date: 09/29/2005
Operable Unit: 04
Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Inst. Control: Subdivision regulation
Actual Date: 09/30/2005
Complet. Date: 09/29/2005
Operable Unit: 04
Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Inst. Control: Zoning regulation
Actual Date: 09/30/2005
Complet. Date: 09/29/2005
Operable Unit: 04

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR FORCE BASE (Continued) **1000169261**

Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Inst. Control: Covenant
Actual Date: 06/15/2004
Complet. Date: 05/11/2004
Operable Unit: 02
Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Inst. Control: Covenant
Actual Date: 06/15/2004
Complet. Date: 05/11/2004
Operable Unit: 02
Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Inst. Control: Base use plan change
Actual Date: 09/30/2005
Complet. Date: 09/30/2005
Operable Unit: 02

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR FORCE BASE (Continued) **1000169261**

Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Inst. Control: Building, demolition, or excavation regulation
Actual Date: 09/30/2005
Complet. Date: 09/30/2005
Operable Unit: 02
Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

ROD:
Full-text of USEPA Record of Decision(s) is available from EDR.

NY MANIFEST:
EPA ID: CA4570024527
Country: USA
Location Address 1: BASE 22 CSG/DEEV
Location Address 2: Not reported
Location City: MARCH AIR FORCE BASE
Location State: CA
Location Zip Code: 92518
Location Zip Code 4: Not reported

Mailing Info:
Name: UNITED STATES MILITARY - MARCH AIR FORCE
Contact: UNITED STATES MILITARY - MARCH AIR FORCE
Address: BASE - 22 CSG/DEEV
City/State/Zip: MARCH AIR FORCE BASE, CA 92518
Country: USA
Phone: 714-655-4858

Manifest:

Document ID: NYA3918835
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID: 64661
Trans2 State ID: Not reported
Generator Ship Date: 02/14/1986
Trans1 Recv Date: 02/14/1986
Trans2 Recv Date: 02/19/1986
TSD Site Recv Date: 03/21/1986

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR FORCE BASE (Continued) **1000169261**

Part A Recv Date: 02/25/1986
Part B Recv Date: 03/27/1986
Generator EPA ID: CA4570024527
Trans1 EPA ID: GAD042097261
Trans2 EPA ID: Not reported
TSDF ID: NYD000632372
Waste Code: D003 - NON-LISTED REACTIVE WASTES
Quantity: 00043
Units: P - Pounds
Number of Containers: 001
Container Type: DM - Metal drums, barrels
Handling Method: T Chemical, physical, or biological treatment.
Specific Gravity: 100
Year: 1986

Document ID: NYA2651571
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID: 54068
Trans2 State ID: GATX43254
Generator Ship Date: 05/30/1985
Trans1 Recv Date: 05/30/1985
Trans2 Recv Date: / /
TSD Site Recv Date: 09/06/1985
Part A Recv Date: 06/25/1985
Part B Recv Date: 09/16/1985
Generator EPA ID: CA4570024527
Trans1 EPA ID: CAD006913206
Trans2 EPA ID: CAD006913206
TSDF ID: NY7890008975
Waste Code: D001 - NON-LISTED IGNITABLE WASTES
Quantity: 01560
Units: G - Gallons (liquids only)* (8.3 pounds)
Number of Containers: 001
Container Type: TT - Cargo tank, tank trucks
Handling Method: B Incineration, heat recovery, burning.
Specific Gravity: 100
Year: 1985

Document ID: NYA2651598
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID: 54068
Trans2 State ID: ACFX88990
Generator Ship Date: 05/28/1985
Trans1 Recv Date: 05/28/1985
Trans2 Recv Date: / /
TSD Site Recv Date: 07/10/1985
Part A Recv Date: 06/05/1985
Part B Recv Date: 07/23/1985
Generator EPA ID: CA4570024527
Trans1 EPA ID: CAD006913206
Trans2 EPA ID: CAD006913206
TSDF ID: NY7890008975
Waste Code: D001 - NON-LISTED IGNITABLE WASTES
Quantity: 05100
Units: G - Gallons (liquids only)* (8.3 pounds)

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR FORCE BASE (Continued) **1000169261**

Number of Containers: 001
Container Type: TT - Cargo tank, tank trucks
Handling Method: B Incineration, heat recovery, burning.
Specific Gravity: 100
Year: 1985

Document ID: NYA2651589
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID: Not reported
Trans2 State ID: ACFX88990
Generator Ship Date: 05/24/1985
Trans1 Recv Date: 05/24/1985
Trans2 Recv Date: / /
TSD Site Recv Date: 07/10/1985
Part A Recv Date: 06/05/1985
Part B Recv Date: 07/23/1985
Generator EPA ID: CA4570024527
Trans1 EPA ID: CAD006913206
Trans2 EPA ID: CAD006913206
TSDF ID: NY7890008975
Waste Code: D001 - NON-LISTED IGNITABLE WASTES
Quantity: 06000
Units: G - Gallons (liquids only)* (8.3 pounds)
Number of Containers: 001
Container Type: TT - Cargo tank, tank trucks
Handling Method: B Incineration, heat recovery, burning.
Specific Gravity: 100
Year: 1985

Document ID: NYA3077741
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID: ACFX88331
Trans2 State ID: ACFX88331
Generator Ship Date: 01/27/1986
Trans1 Recv Date: 01/27/1986
Trans2 Recv Date: / /
TSD Site Recv Date: 04/17/1986
Part A Recv Date: 01/31/1986
Part B Recv Date: 04/23/1986
Generator EPA ID: CA4570024527
Trans1 EPA ID: CAD006913206
Trans2 EPA ID: CAD006913206
TSDF ID: NY7890008975
Waste Code: D001 - NON-LISTED IGNITABLE WASTES
Quantity: 03500
Units: G - Gallons (liquids only)* (8.3 pounds)
Number of Containers: 001
Container Type: TT - Cargo tank, tank trucks
Handling Method: B Incineration, heat recovery, burning.
Specific Gravity: 100
Year: 1986

PRP:
PRP name: STATE OF CALIFORNIA/DEPT. OF HEALTH SERVICES
STATE OF CALIFORNIA/DEPT. OF WATER QUALITY

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MAP FINDINGS

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	MARCH AIR FORCE BASE (Continued)		**1000169261**
	U.S. AIR FORCE U.S. AIR FORCE		
A1 **ENE** **< 1/8** **0.010 mi.** **52 ft.**	**R A TRANSPORTAION** **17731 INDIAN ST** **MORENO VALLEY, CA 92551** **Site 1 of 3 in cluster A**	**RCRA NonGen / NLR**	**1014387880** **CAR000214940**

Relative: Lower

Actual: 1471 ft.

RCRA NonGen / NLR:

Date form received by agency:	11/01/2010
Facility name:	R A TRANSPORTAION
Facility address:	17731 INDIAN ST NO 07 MORENO VALLEY, CA 92551
EPA ID:	CAR000214940
Mailing address:	27290 VISTA AVE PERRIS, CA 92570
Contact:	JESUS R AMAYA
Contact address:	27290 VISTA AVE PERRIS, CA 92570
Contact country:	US
Contact telephone:	951-970-8453
Contact email:	Not reported
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	JESUS RAMON AMAYA
Owner/operator address:	27290 VISTA AVE PERRIS, CA 92570
Owner/operator country:	US
Owner/operator telephone:	951-657-7190
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	09/21/2006
Owner/Op end date:	Not reported

Owner/operator name:	JESUS RAMON AMAYA
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	09/21/2006
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	Yes
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MAP FINDINGS

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

R A TRANSPORTAION (Continued) **1014387880**

Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

A2
ENE
< 1/8
0.010 mi.
52 ft.

Relative: Lower

Actual: 1471 ft.

ISANL M ELEDESMA DBA MORENO BROS TRUCKING **RCRA NonGen / NLR** **1014387877**
17731 INDIAN ST **CAR000214874**
MORENO VALLEY, CA 92551

Site 2 of 3 in cluster A

RCRA NonGen / NLR:
Date form received by agency: 11/01/2010
Facility name: ISANL M ELEDESMA DBA MORENO BROS TRUCKING
Facility address: 17731 INDIAN ST
MORENO VALLEY, CA 92551
EPA ID: CAR000214874
Mailing address: 660 E ORANGE AVE
PERRIS, CA 92572
Contact: ISANL M ELEDESMA
Contact address: 660 E ORANGE AVE
PERRIS, CA 92572
Contact country: US
Contact telephone: 951-722-8961
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: ISANL M ELEDESMA
Owner/operator address: 660 E ORANGE AVE
PERRIS, CA 92572
Owner/operator country: US
Owner/operator telephone: 951-657-1818
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 09/21/1995
Owner/Op end date: Not reported

Owner/operator name: SAUL M ELEDESMA
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 09/21/2005
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

ISANL M ELEDESMA DBA MORENO BROS TRUCKING (Continued) **1014387877**

Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

A3 **MORENO VALLEY TRANSFER STATION** **RCRA-SQG** **1001085672**
ENE **17700 INDIAN ST** **FINDS** **CAR000009969**
< 1/8 **MORENO VALLEY, CA 92551** **CA SWF/LF**
0.015 mi. **CA NPDES**
79 ft. **Site 3 of 3 in cluster A** **CA HAZNET**
CA HAULERS

Relative:
Lower

Actual:
1471 ft.

RCRA-SQG:
Date form received by agency: 03/11/1996
Facility name: MORENO VALLEY TRANSFER STATION
Facility address: 17700 INDIAN ST
MORENO VALLEY, CA 92551
EPA ID: CAR000009969
Contact: ANNA WAFFORD
Contact address: 26500 SCARMELLA CIR
HEMET, CA 92545
Contact country: US
Contact telephone: (909) 658-9147
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: WASTE MANAGEMENT COLLECTION INC
Owner/operator address: 26500 SCARMELLA CIR
HEMET, CA 92545
Owner/operator country: Not reported
Owner/operator telephone: (909) 658-9147
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MORENO VALLEY TRANSFER STATION (Continued) **1001085672**

Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

FINDS:

Registry ID: 110002910609

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

SWF/LF (SWIS):

Region:	STATE
Facility ID:	33-AA-0234
Lat/Long:	33.8627800 / -117.23454
Owner Name:	Waste Management of the Inland Empire
Owner Telephone:	Not reported
Owner Address:	Not reported
Owner Address2:	2655 S. Riverside Ave.
Owner City,St,Zip:	Bloomington, CA 92316
Operational Status:	Active
Operator:	Waste Management of the Inland Empire
Operator Phone:	Not reported
Operator Address:	Not reported
Operator Address2:	2655 S. Riverside Ave.
Operator City,St,Zip:	Bloomington, CA 92316
Permit Date:	01/28/2015
Permit Status:	Permitted
Permitted Acreage:	24.9
Activity:	Large Volume Transfer/Proc Facility
Regulation Status:	Permitted
Landuse Name:	Suburban,Residential,Commercial,Agricultural
GIS Source:	Map
Category:	Transfer/Processing

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MORENO VALLEY TRANSFER STATION (Continued) **1001085672**

Unit Number: 01
Inspection Frequency: Monthly
Accepted Waste: Construction/demolition,Green Materials,Metals,Mixed municipal
Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: Not reported
SWIS Num: 33-AA-0234
Waste Discharge Requirement Num: Not reported
Program Type: Not reported
Permitted Throughput with Units: 2000
Actual Throughput with Units: Tons/day
Permitted Capacity with Units: 2600
Remaining Capacity: Not reported
Remaining Capacity with Units: Tons/day
Lat/Long: 33.8627800 / -117.23454

LOS ANGELES CO. LF:
Site ID: 2755
Alt. Address: N/A
Site Contact: Not reported
Site Contact Phone: (951) 242-0421
Site Email: Not reported
Site Website: N/A
Site Type: Out-of-County Facility
Site SWIS Number: 33-AA-0234
Beginning Operation Date: N/A
Ending Operation Date: N/A
Local Enforcement Agency: County of Riverside Community Health Agency
Maximun Depth Fill(Ft): N/A
Permitted Capacity: 2000
Present Use: Large Volume Transfer/Proc Facility
Remaining Capacity(Million): N/A
Status: Active
Waste Accepted: Construction & Demolition;Green Materials;Household Trash;Industrial Non-Hazardous;Metals;
Hours of Operation: Monday - Friday 8 am - 5 pm
Disposal Area (Acre): N/A

Detail As Of 01/2014:
Operator Name: Unknown
Operator Address: Not reported
Operator City/State/Zip: Not reported
Operator Contact: Not reported
Operator Telephone: Not reported
Operator Email: Not reported
Owner Name: Unknown
Owner Address: Not reported
Owner City/State/Zip: Not reported
Owner Contact: Not reported
Owner Telephone: Not reported
Owner Email: Not reported

NPDES:
Npdes Number: Not reported
Facility Status: Not reported
Agency Id: Not reported
Region: 8
Regulatory Measure Id: 210899

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MORENO VALLEY TRANSFER STATION (Continued) **1001085672**

Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I015730
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	05/09/2008
PROCESSED DATE:	04/06/2000
STATUS CODE NAME:	Active
STATUS DATE:	04/06/2000
PLACE SIZE:	19.2
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Sharon Davis
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	909-242-0421
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	sdavis3@wm.com
OPERATOR NAME:	WM Collection & Recycling Inc
OPERATOR ADDRESS:	800 S Temescal Street
OPERATOR CITY:	Corona
OPERATOR STATE:	California
OPERATOR ZIP:	92879
OPERATOR CONTACT NAME:	Lanz Hartfiel
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	951-280-5400
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MORENO VALLEY TRANSFER STATION (Continued) **1001085672**

CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Paris Valley Storm Drain
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	4212-Local Trucking Without Storage
SECONDARY SIC:	4953-Refuse Systems
TERTIARY SIC:	Not reported
Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	210899
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I015730
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/06/2000
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	WM Collection & Recycling Inc
Discharge Address:	800 S Temescal Street
Discharge City:	Corona
Discharge State:	California
Discharge Zip:	92879
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MORENO VALLEY TRANSFER STATION (Continued) **1001085672**

DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

HAZNET:

envid:	1001085672
Year:	2013
GEPAID:	CAR000009969
Contact:	LANZ HARTFELL
Telephone:	9516016636
Mailing Name:	Not reported
Mailing Address:	17700 INDIAN ST
Mailing City,St,Zip:	MORENO VALLEY, CA 925510000
Gen County:	Riverside
TSD EPA ID:	ARD069748192
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.071
Facility County:	Not reported

envid:	1001085672
Year:	2013
GEPAID:	CAR000009969
Contact:	LANZ HARTFELL
Telephone:	9516016636
Mailing Name:	Not reported
Mailing Address:	17700 INDIAN ST

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MORENO VALLEY TRANSFER STATION (Continued) **1001085672**

Mailing City,St,Zip:	MORENO VALLEY, CA 925510000
Gen County:	Riverside
TSD EPA ID:	ARD981057870
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.25
Facility County:	Not reported

envid:	1001085672
Year:	2013
GEPAID:	CAR000009969
Contact:	LANZ HARTFELL
Telephone:	9516016636
Mailing Name:	Not reported
Mailing Address:	17700 INDIAN ST
Mailing City,St,Zip:	MORENO VALLEY, CA 925510000
Gen County:	Riverside
TSD EPA ID:	ARD981057870
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.02085
Facility County:	Not reported

envid:	1001085672
Year:	2013
GEPAID:	CAR000009969
Contact:	LANZ HARTFELL
Telephone:	9516016636
Mailing Name:	Not reported
Mailing Address:	17700 INDIAN ST
Mailing City,St,Zip:	MORENO VALLEY, CA 925510000
Gen County:	Riverside
TSD EPA ID:	ARD981057870
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.4587
Facility County:	Not reported

envid:	1001085672
Year:	2013
GEPAID:	CAR000009969
Contact:	LANZ HARTFELL
Telephone:	9516016636
Mailing Name:	Not reported
Mailing Address:	17700 INDIAN ST
Mailing City,St,Zip:	MORENO VALLEY, CA 925510000
Gen County:	Riverside
TSD EPA ID:	ARD981057870
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.029
Facility County:	Not reported

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MORENO VALLEY TRANSFER STATION (Continued) **1001085672**

Click this hyperlink while viewing on your computer to access
186 additional CA_HAZNET: record(s) in the EDR Site Report.

HAULERS:

Facility ID:	1338241
Facility Phone:	(951) 242-0421
Business Email Address:	Not reported
Contact Person:	Sharon Davis, Lanz Hartfeil
Mailing Address:	17700 Indian St
Mailing City:	Moreno Valley
Mailing State:	CA
Mailing Zip:	92551-9511
Mailing County:	Riverside
Mailing Phone:	(951) 242-0421
Waste Tire Permit Summary:	No Permit record for this business.

Detail:

SR#:	1272
Current Role:	Hauler
Current Role Status:	Registered
Facility ID:	1338241
SR#:	1272
Current Role:	Generator
Current Role Status:	Yes
Facility ID:	1338241
SR#:	1272
Current Role:	End Use
Current Role Status:	Yes
Facility ID:	1338241

B4
NW
1/2-1
0.520 mi.
2747 ft.

MARCH AIR FORCE BASE - SITE 24 **CA HIST Cal-Sites** **S101272803**
7,123 ACRES; EAST OF RIVERSIDE, CA **CA RESPONSE** **N/A**
RIVERSIDE, CA 92518 **CA ENVIROSTOR**

Site 1 of 6 in cluster B

Relative:
Higher

Actual:
1483 ft.

Calsite:

Region:	GLENDALE
Facility ID:	33350014
Facility Type:	CLOSE
Type:	CLOSED MILITARY BASE
Branch:	SO
Branch Name:	OMF-SOUTHERN CALIF
File Name:	Not reported
State Senate District:	05011986
Status:	CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT
Status Name:	CERTIFIED
Lead Agency:	ENVIRONMENTAL PROTECTION AGENCY
NPL:	Not Listed
SIC Code:	35
SIC Name:	MANU - INDUSTRIAL MACHINERY & EQUIPMENT
Access:	Not reported
Cortese:	Not reported
Hazardous Ranking Score:	Not reported
Date Site Hazard Ranked:	Not reported

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

Groundwater Contamination:	Confirmed
Staff Member Responsible for Site:	Not reported
Supervisor Responsible for Site:	Not reported
Region Water Control Board:	Not reported
Region Water Control Board Name:	Not reported
Lat/Long Direction:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported
Lat/Long Description:	Not reported
State Assembly District Code:	64
State Senate District Code:	36
Facility ID:	33350014
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	STE24
Proposed Budget:	0
AWP Completion Date:	09221995
Revised Due Date:	Not reported
Comments Date:	09221995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33350014
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	STE24
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	07221996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

For Residential Reuse: 0
Unknown Type: 0
Alternate Address: 7,123 ACRES; EAST OF RIVERSIDE, CA
Alternate City,St,Zip: RIVERSIDE, CA 92518
Alternate Address: 7,123; EAST OF RIVERSIDE, CA
Alternate City,St,Zip: RIVERSIDE, CA 92518
Background Info: Not reported
Comments Date: Not reported
Comments: Not reported
ID Name: Not reported
ID Value: Not reported
Alternate Name: MARCH AIR FORCE BASE - SITE 24
Special Programs Code: Not reported
Special Programs Name: Not reported

RESPONSE:
Facility ID: 33350014
Site Type: State Response
Site Type Detail: Closed Base
Acres: 4
National Priorities List: NO
Cleanup Oversight Agencies: US EPA
Lead Agency Description: US EPA
Project Manager: Not reported
Supervisor: Manny Alonzo
Division Branch: Cleanup Cypress
Site Code: Not reported
Site Mgmt. Req.: NONE SPECIFIED
Assembly: 61
Senate: 31
Special Program Status: Not reported
Status: Certified
Status Date: 05/01/1986
Restricted Use: NO
Funding: * Defense Environmental Restoration Program (DERP)
Latitude: 33.8676
Longitude: -117.2636
APN: NONE SPECIFIED
Past Use: INCINERATOR - OTHER
Potential COC : NONE SPECIFIED
Confirmed COC: 31000-NO
Potential Description: OTH, SOIL
Alias Name: 110033608647
Alias Type: EPA (FRS #)
Alias Name: DOD100278600
Alias Type: GeoTracker Global ID
Alias Name: DOD100278800
Alias Type: GeoTracker Global ID
Alias Name: DOD100280300
Alias Type: GeoTracker Global ID
Alias Name: DOD100280500
Alias Type: GeoTracker Global ID
Alias Name: DOD100281800
Alias Type: GeoTracker Global ID
Alias Name: DOD100281900
Alias Type: GeoTracker Global ID
Alias Name: DOD100282000

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

Alias Type:	GeoTracker Global ID
Alias Name:	DOD100282100
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100283700
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100285000
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100285100
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100285200
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100286600
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100288200
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100288300
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100290000
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100291300
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100291400
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100291500
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100291600
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100319500
Alias Type:	GeoTracker Global ID
Alias Name:	DOD100319700
Alias Type:	GeoTracker Global ID
Alias Name:	T0606500618
Alias Type:	GeoTracker Global ID
Alias Name:	33350014
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Sites With No Operable Unit
Completed Sub Area Name:	STE24
Completed Document Type:	Certification
Completed Date:	07/22/1996
Comments:	Not reported
Completed Area Name:	Sites With No Operable Unit
Completed Sub Area Name:	STE24
Completed Document Type:	Feasibility Study Report
Completed Date:	09/22/1995
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

Facility ID:	33970003
Site Type:	State Response
Site Type Detail:	Closed Base
Acres:	18
National Priorities List:	NO
Cleanup Oversight Agencies:	US EPA
Lead Agency Description:	US EPA
Project Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Cypress
Site Code:	Not reported
Site Mgmt. Req.:	NONE SPECIFIED
Assembly:	61
Senate:	31
Special Program Status:	Not reported
Status:	Certified
Status Date:	10/04/1995
Restricted Use:	NO
Funding:	* Defense Environmental Restoration Program (DERP)
Latitude:	33.88333
Longitude:	-117.2630
APN:	NONE SPECIFIED
Past Use:	LANDFILL - DOMESTIC
Potential COC :	* Asbestos and Naturally Occurring Asbestos (NOA
Confirmed COC:	* Asbestos and Naturally Occurring Asbestos (NOA
Potential Description:	OTH, SOIL
Alias Name:	ALESSANDRO AVIATION FIELD
Alias Type:	Alternate Name
Alias Name:	110033608656
Alias Type:	EPA (FRS #)
Alias Name:	33970003
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Sites With No Operable Unit
Completed Sub Area Name:	STE40
Completed Document Type:	Removal Action Completion Report
Completed Date:	06/28/1995
Comments:	Removal Action (RA) - The primary objective of this time- critical RA was to prevent potential contamination of the surface and storm water in the channel due to exposure to drums and debris buried in the channel bed. Field execution of the RA resulted in removing approximately 70 5-gallon to 20-gallon decomposed drums filled with sodium hydroxide and 30 55 gallon drums filled with roofing tar, asphalt solids and waste, and oil grease solids. Approximately 200 cubic yards of contaminated overburden material extending above and to the sides of the drums, in addition to the drums, were combined in 85 gallon overpack drums and transported off site for treatment/stabilization in lined end-dumps at the Landlaw Environmental. Approximately 14 tons of debris containing non-friable asbestos as less than 10% by total weight were placed in a lined roll-off box and transported off-site to BDC Services, Inc. for disposal. In addition, approximately 6,800 cubic yards of non hazardous materials (consisting of soil and debris) were transported to IRP Site 6a. As part of Site 40 restoration, the water's elevation in the pond was raised by installing a concrete weir at the outlet of the pond. Each site location, including the creek bed, was restored. Vegetation destroyed during construction was replaced with California

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

native plants. This RA, at Site 40, is undertaken as part of the ongoing long term remedial actions (RI/FS OU-2). 100 drums, 200 cubic yards of contaminated soil, 14 tons of non-friable asbestos debris, and 6,800 cubic yards of non-hazardous materials were removed.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE40
Completed Document Type: Feasibility Study Report
Completed Date: 10/13/1994
Comments: RI/FS - This RI/FS was completed via an EECA for Site 40 which DTSC approved on October 13, 1994. Site 40 is a former landfill used for disposing military wastes. It is approximately 18 acres and the central portion of the property consists of a pond which accumulates surface run- off. There are drums buried at this landfill that appear to contain a mixture of chemicals, clothing, and domestic refuse. The Air Force will: 1) excavate buried drums and other solid waste from the creek bed to prepare subgrade for the liner. Containerized waste will be segragated, sampled and characterized for disposal, 2) construct a new channel, 3) raise the water level in the pond by constructing a weir, 4) trench at three areas outside of the orignial excavation area which responded positively during the magnotometer survey, 5) engineer the drainage inlet and outlet to limit contact between the water in the pond and the remaining contaminants, if any. Approximate cost = not available; funding = BRAC

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE40
Completed Document Type: Certification
Completed Date: 10/04/1995
Comments: Certification - Confirmation sampling has shown the soil to be suitable for unrestricted use. DTSC has determined that all appropriate response actions have been completed, that all acceptable engineering practices were implemented and that no further removal/ remedial action is necessary.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 33970003
Status: Certified
Status Date: 10/04/1995
Site Code: Not reported
Site Type: State Response
Site Type Detailed: Closed Base
Acres: 18
NPL: NO
Regulatory Agencies: US EPA
Lead Agency: US EPA
Program Manager: Not reported

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

Supervisor: Not reported
Division Branch: Cleanup Cypress
Assembly: 61
Senate: 31
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: * Defense Environmental Restoration Program (DERP)
Latitude: 33.88333
Longitude: -117.2630
APN: NONE SPECIFIED
Past Use: LANDFILL - DOMESTIC
Potential COC: * Asbestos and Naturally Occurring Asbestos (NOA
Confirmed COC: * Asbestos and Naturally Occurring Asbestos (NOA
Potential Description: OTH, SOIL
Alias Name: ALESSANDRO AVIATION FIELD
Alias Type: Alternate Name
Alias Name: 110033608656
Alias Type: EPA (FRS #)
Alias Name: 33970003
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE40
Completed Document Type: Removal Action Completion Report
Completed Date: 06/28/1995
Comments: Removal Action (RA) - The primary objective of this time- critical RA was to prevent potential contamination of the surface and storm water in the channel due to exposure to drums and debris buried in the channel bed. Field execution of the RA resulted in removing approximately 70 5-gallon to 20-gallon decomposed drums filled with sodium hydroxide and 30 55 gallon drums filled with roofing tar, asphalt solids and waste, and oil grease solids. Approximately 200 cubic yards of contaminated overburden material extending above and to the sides of the drums, in addition to the drums, were combined in 85 gallon overpack drums and transported off site for treatment/stabilization in lined end-dumps at the Landlaw Environmental. Approximately 14 tons of debris containing non-friable asbestos as less than 10% by total weight were placed in a lined roll-off box and transported off-site to BDC Services, Inc. for disposal. In addition, approximately 6,800 cubic yards of non hazardous materials (consisting of soil and debris) were transported to IRP Site 6a. As part of Site 40 restoration, the water's elevation in the pond was raised by installing a concrete weir at the outlet of the pond. Each site location, including the creek bed, was restored. Vegetation destroyed during construction was replaced with California native plants. This RA, at Site 40, is undertaken as part of the ongoing long term remedial actions (RI/FS OU-2). 100 drums, 200 cubic yards of contaminated soil, 14 tons of non-friable asbestos debris, and 6,800 cubic yards of non-hazardous materials were removed.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE40
Completed Document Type: Feasibility Study Report
Completed Date: 10/13/1994
Comments: RI/FS - This RI/FS was completed via an EECA for Site 40 which DTSC approved on October 13, 1994. Site 40 is a former landfill used for

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

disposing military wastes. It is approximately 18 acres and the central portion of the property consists of a pond which accumulates surface run- off. There are drums buried at this landfill that appear to contain a mixture of chemicals, clothing, and domestic refuse. The Air Force will: 1) excavate buried drums and other solid waste from the creek bed to prepare subgrade for the liner. Containerized waste will be segragated, sampled and characterized for disposal, 2) construct a new channel, 3) raise the water level in the pond by constructing a weir, 4) trench at three areas outside of the orignial excavation area which responded positively during the magnotometer survey, 5) engineer the drainage inlet and outlet to limit contact between the water in the pond and the remaining contaminants, if any. Approximate cost = not available; funding = BRAC

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE40
Completed Document Type: Certification
Completed Date: 10/04/1995
Comments: Certification - Confirmation sampling has shown the soil to be suitable for unrestricted use. DTSC has determined that all appropriate response actions have been completed, that all acceptable engineering practices were implemented and that no further removal/ remedial action is necessary.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Facility ID: 33350014
Status: Certified
Status Date: 05/01/1986
Site Code: Not reported
Site Type: State Response
Site Type Detailed: Closed Base
Acres: 4
NPL: NO
Regulatory Agencies: US EPA
Lead Agency: US EPA
Program Manager: Not reported
Supervisor: Manny Alonzo
Division Branch: Cleanup Cypress
Assembly: 61
Senate: 31
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: * Defense Environmental Restoration Program (DERP)
Latitude: 33.8676
Longitude: -117.2636
APN: NONE SPECIFIED
Past Use: INCINERATOR - OTHER

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number
EPA ID Number

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

Potential COC: NONE SPECIFIED
Confirmed COC: 31000-NO
Potential Description: OTH, SOIL
Alias Name: 110033608647
Alias Type: EPA (FRS #)
Alias Name: DOD100278600
Alias Type: GeoTracker Global ID
Alias Name: DOD100278800
Alias Type: GeoTracker Global ID
Alias Name: DOD100280300
Alias Type: GeoTracker Global ID
Alias Name: DOD100280500
Alias Type: GeoTracker Global ID
Alias Name: DOD100281800
Alias Type: GeoTracker Global ID
Alias Name: DOD100281900
Alias Type: GeoTracker Global ID
Alias Name: DOD100282000
Alias Type: GeoTracker Global ID
Alias Name: DOD100282100
Alias Type: GeoTracker Global ID
Alias Name: DOD100283700
Alias Type: GeoTracker Global ID
Alias Name: DOD100285000
Alias Type: GeoTracker Global ID
Alias Name: DOD100285100
Alias Type: GeoTracker Global ID
Alias Name: DOD100285200
Alias Type: GeoTracker Global ID
Alias Name: DOD100286600
Alias Type: GeoTracker Global ID
Alias Name: DOD100288200
Alias Type: GeoTracker Global ID
Alias Name: DOD100288300
Alias Type: GeoTracker Global ID
Alias Name: DOD100290000
Alias Type: GeoTracker Global ID
Alias Name: DOD100291300
Alias Type: GeoTracker Global ID
Alias Name: DOD100291400
Alias Type: GeoTracker Global ID
Alias Name: DOD100291500
Alias Type: GeoTracker Global ID
Alias Name: DOD100291600
Alias Type: GeoTracker Global ID
Alias Name: DOD100319500
Alias Type: GeoTracker Global ID
Alias Name: DOD100319700
Alias Type: GeoTracker Global ID
Alias Name: T0606500618
Alias Type: GeoTracker Global ID
Alias Name: 33350014
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE24
Completed Document Type: Certification

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

Completed Date:	07/22/1996
Comments:	Not reported
Completed Area Name:	Sites With No Operable Unit
Completed Sub Area Name:	STE24
Completed Document Type:	Feasibility Study Report
Completed Date:	09/22/1995
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

B5 **MARCH AIR FORCE BASE** **CA BOND EXP. PLAN** **S105960470**
NW **N/A**
1/2-1 **MORENO VALLEY, CA 92518**
0.520 mi.
2747 ft. **Site 2 of 6 in cluster B**

Relative:
Higher

Actual:
1483 ft.

CA BOND EXP. PLAN:

Reponsible Party:	FEDERAL FACILITY SITE CLEANUP WORKPLAN
Project Revenue Source Company:	Not reported
Project Revenue Source Addr:	Not reported
Project Revenue Source City,St,Zip:	Not reported
Project Revenue Source Desc:	The Department will either enter into an interagency agreement with the Department of Defense of issue an order for oversight/monitoring of the Air Force's cleanup efforts. DHS has budgeted $100,000 for its oversight/monitoring costs. DHS will recover 100 percent of direct costs plus staff costs and overhead related to the project. The Department of Defense will pay all costs associated with remedial investigation and cleanup activities.
Site Description:	The site is a U.S. Air Force Base.
Hazardous Waste Desc:	The initial assessment at this site identified hazardous waste disposal on base in landfills, burning pits, dry wells, and ground disposal. Several types of wastes associated with aircraft and general maintenance were identified, including fuels, oils, polychlorinated biphenyls (PCBs), pesticides, low-level radiation, and the solvents trichloroethylene (TCE) and perchloroethylene (PCE).
Threat To Public Health & Env:	Past disposal practices at March Air Force Base pose a threat to surface and ground water. Work to date has identified ground water contamination on and off base, and recently, in private wells east of the base perimeter. There is no known exposure at this time.
Site Activity Status:	The installation restoration program has been initiated at this base. Currently the program is in the confirmation/quantification step of the mitigation process. DHS's oversight has increased due to contamination of drinking water supplies.

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MAP FINDINGS

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
B6	**PANERO AIRCRAFT FUELING SYST.**	**CA Notify 65**	**S100179101**
NW	**MARCH AFB**		**N/A**
1/2-1	**MORENO VALLEY, CA 90062**		
0.520 mi.			
2747 ft.	**Site 3 of 6 in cluster B**		
Relative: Higher	NOTIFY 65:		
	Date Reported: Not reported		
Actual: 1483 ft.	Staff Initials: Not reported		
	Board File Number: Not reported		
	Facility Type: Not reported		
	Discharge Date: Not reported		
	Incident Description: 90062		

B7	**MARCH AIR RESERVE BASE**	**CA HIST Cal-Sites**	**S104241831**
NW	**3,545 ACRES; EAST OF RIVERSIDE**	**CA Cortese**	**N/A**
1/2-1	**RIVERSIDE, CA 92518**	**CA ENVIROSTOR**	
0.520 mi.			
2747 ft.	**Site 4 of 6 in cluster B**		
Relative: Higher	Calsite:		
	Region: GLENDALE		
Actual: 1483 ft.	Facility ID: 33970004		
	Facility Type: OPEN		
	Type: OPEN MILITARY BASE		
	Branch: SO		
	Branch Name: OMF-SOUTHERN CALIF		
	File Name: Not reported		
	State Senate District: 07131998		
	Status: ANNUAL WORKPLAN (AWP) - ACTIVE SITE		
	Status Name: ANNUAL WORKPLAN - ACTIVE SITE		
	Lead Agency: ENVIRONMENTAL PROTECTION AGENCY		
	NPL: Listed		
	SIC Code: 97		
	SIC Name: NATIONAL SECURITY/INTERNATIONAL AFFAIRS		
	Access: Not reported		
	Cortese: Not reported		
	Hazardous Ranking Score: Not reported		
	Date Site Hazard Ranked: Not reported		
	Groundwater Contamination: Confirmed		
	Staff Member Responsible for Site: SNIOU		
	Supervisor Responsible for Site: Not reported		
	Region Water Control Board: SA		
	Region Water Control Board Name: SANTA ANA		
	Lat/Long Direction: Not reported		
	Lat/Long (dms): 0 0 0 / 0 0 0		
	Lat/long Method: Not reported		
	Lat/Long Description: Not reported		
	State Assembly District Code: 62		
	State Senate District Code: 32		
	Facility ID: 33970004		
	Activity: RAP		
	Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION		
	AWP Code: OU2		
	Proposed Budget: 0		
	AWP Completion Date: 12312004		
	Revised Due Date: 06302006		
	Comments Date: Not reported		
	Est Person-Yrs to complete: 0		
	Estimated Size: Not reported		

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR RESERVE BASE (Continued) **S104241831**

Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	STE34
Proposed Budget:	0
AWP Completion Date:	07111996
Revised Due Date:	Not reported
Comments Date:	07111996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	STE33
Proposed Budget:	0
AWP Completion Date:	07081996
Revised Due Date:	Not reported
Comments Date:	07081996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR RESERVE BASE (Continued) **S104241831**

Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	PANER
Proposed Budget:	0
AWP Completion Date:	06171996
Revised Due Date:	Not reported
Comments Date:	06171996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	SIT31
Proposed Budget:	0
AWP Completion Date:	05081996
Revised Due Date:	Not reported
Comments Date:	05081996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	SIT31

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR RESERVE BASE (Continued) **S104241831**

Proposed Budget:	0
AWP Completion Date:	05081996
Revised Due Date:	Not reported
Comments Date:	05081996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	SIT11
Proposed Budget:	0
AWP Completion Date:	05011996
Revised Due Date:	Not reported
Comments Date:	05011996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	380
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	CONTAMINATED SOIL REMOVED AND STOCKPILED AT SITE 15 FOR REMEDIATION
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	STE 1
Proposed Budget:	0
AWP Completion Date:	03251996
Revised Due Date:	Not reported
Comments Date:	03251996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	STE 9
Proposed Budget:	0
AWP Completion Date:	03251996
Revised Due Date:	Not reported
Comments Date:	03251996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	STE10
Proposed Budget:	0
AWP Completion Date:	02021996
Revised Due Date:	Not reported
Comments Date:	02021996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0

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MARCH AIR RESERVE BASE (Continued) **S104241831**

For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	STE15
Proposed Budget:	0
AWP Completion Date:	02021996
Revised Due Date:	Not reported
Comments Date:	02021996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	OU-3
Proposed Budget:	0
AWP Completion Date:	09141995
Revised Due Date:	Not reported
Comments Date:	09141995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	STE34
Proposed Budget:	0
AWP Completion Date:	07111996
Revised Due Date:	Not reported

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date:	07111996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	STE34
Proposed Budget:	0
AWP Completion Date:	07111996
Revised Due Date:	Not reported
Comments Date:	07111996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	OU-3
Proposed Budget:	0
AWP Completion Date:	11131996
Revised Due Date:	Not reported
Comments Date:	11131996
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	SITEB
Proposed Budget:	0
AWP Completion Date:	04102000
Revised Due Date:	Not reported
Comments Date:	04102000
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	SITE8
Proposed Budget:	0
AWP Completion Date:	12312006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	STE18
Proposed Budget:	0
AWP Completion Date:	04071999
Revised Due Date:	Not reported
Comments Date:	04071999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	GROUNDWATER LEVELS ARE DEPRESSED TO EXPOSE CONTAMINATED SATURATI OIL FOR CLEANUP BY COMBINED SOIL VAPOR EXTRACTION, AND SOIL AERATION/BIO-VENTING. SVE = 137 SCFM
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	SITE8
Proposed Budget:	0
AWP Completion Date:	12312005
Revised Due Date:	06302007
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	STE39
Proposed Budget:	0
AWP Completion Date:	03121999
Revised Due Date:	Not reported
Comments Date:	03121999

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Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	3000
Liquids Treated (Gals):	3000
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	A BIOVENTING (AIR INJECTION) WELL, TWO BIOVENTING MONITORING PROBES, CONVEYANCE PIPING, AN AIR BLOWER, AND MECHANICAL AND ELECTRICAL APPURTENANCES.
For Commercial Reuse:	1
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	STE39
Proposed Budget:	0
AWP Completion Date:	02231999
Revised Due Date:	Not reported
Comments Date:	02231999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	SITE8
Proposed Budget:	0
AWP Completion Date:	12312004
Revised Due Date:	12312006
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	STE36
Proposed Budget:	0
AWP Completion Date:	02072000
Revised Due Date:	Not reported
Comments Date:	02072000
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	STE36
Proposed Budget:	0
AWP Completion Date:	05261999
Revised Due Date:	Not reported
Comments Date:	05261999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	INSTALLATION OF A GROUNDWATER EXTRACTION AND TREATMENT SYSTEM IN COMBINATION WITH A SYSTEM FOR SOIL VAPOR EXTRACTION(SVE).
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Unknown Type:	0
Facility ID:	33970004
Activity:	DES
Activity Name:	DESIGN
AWP Code:	STE18
Proposed Budget:	0
AWP Completion Date:	07211998
Revised Due Date:	Not reported
Comments Date:	07211998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	STE33
Proposed Budget:	0
AWP Completion Date:	12312007
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	STE27
Proposed Budget:	0
AWP Completion Date:	12312006
Revised Due Date:	Not reported
Comments Date:	Not reported

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	SITE8
Proposed Budget:	0
AWP Completion Date:	12312006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	SITE2
Proposed Budget:	0
AWP Completion Date:	12312006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	B2307
Proposed Budget:	0
AWP Completion Date:	06302007
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970004
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	STE18
Proposed Budget:	0
AWP Completion Date:	12312007
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	2374 ACRES; EAST OF RIVERSIDE
Alternate City,St,Zip:	RIVERSIDE, CA 92518

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Alternate Address:	2990 GRAEBER STREET
Alternate City,St,Zip:	MORENO VALLEY, CA 92518
Alternate Address:	3,545 ACRES; EAST OF RIVERSIDE
Alternate City,St,Zip:	RIVERSIDE, CA 92518
Background Info:	This facility is an active U.S. Air Reserve Base part of the the Air Mobility Command (AMC). The Base's mission is to maintain an effective air to air refueling operation capability. Operations at the Base include: maintenance and repair of air- craft, vehicl es and equipment; operation of a photo lab and printing plant; an d fuel management. March AFB has historically generated the follo wing hazardous wastes: petroleum, oil and lubricants (POLs), chlo rinated and nonclorinated solvents, corrosives, antifreeze, paint and paint strippers, carbon removers and photographic chemicals. Past activities which have resulted in contamination at the base include burning waste in fire fighting training exercises and di scharges to sanitary sewers and storm drains. Groundwater has bee n contaminated with trichloroethylene (TCE). Groundwater is the p rimary source of potable water in this area. There is a potential for contamination of soils and surface water. This base was incl uded on the NPL in 1989. A Federal Facilities Agreement (FFA) was signed between EPA, DHS, the Santa Ana RWQCB and the Air Force i n September 1990, to provide for the remediation of the Base. The Base has been divided into three groups, or operable units, whic h are similar to the State's removal actions, for remediation. Th ese groups are: 1) ground- water and soil for areas along the eas t boundary and off base plume, 2) groundwater and soil for areas not included in units 1 & 3, and 3) groundwater and soil in area 33.
Comments Date:	02021996
Comments:	the final OU#1 Record of Decision (ROD). Approximately 15 cubic y
Comments Date:	02021996
Comments:	ards of sediment material will be removed from the concrete-lined
Comments Date:	02021996
Comments:	channel and transported off-site to Candelaria Environmental for
Comments Date:	02021996
Comments:	bioremediation. DES - SITE 15: This is also part of OU#1. The
Comments Date:	07241998
Comments:	DES - SITE18: The remediation technology for Site 18 is based
Comments Date:	07241998
Comments:	on depressing the groundwater levels to expose contaminated
Comments Date:	07241998
Comments:	saturated soils for cleanup by combined soil vapor extraction,
Comments Date:	05011996
Comments:	(Fuel Pump Station Building 2202 and Building 2340. These fuel l
Comments Date:	05011996
Comments:	ines transport fuels from the fuel storage tanks tot he flight li
Comments Date:	05011996
Comments:	ne to enable refueling of aircraft. Leakage of the fuel line was
Comments Date:	06011999
Comments:	five extraction wells, 2) Constructing a small concrete pad to
Comments Date:	06011999
Comments:	support process equipment. 3) Installing groundwater and vapor
Comments Date:	06011999
Comments:	conveyance piping and other necessary equipment to convey soil
Comments Date:	01311996
Comments:	RIFS - SITE L: This EE/CA has been prepared to address a removal
Comments Date:	01311996

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments:	action proposed for Site L. The swimming pool was converted to a
Comments Date:	01311996
Comments:	waste disposal area for various base wastes including wastes oils
Comments Date:	01311996
Comments:	, solvents, asbestos-containing material, and polychlorinated
Comments Date:	01311996
Comments:	biphenyls (PCBs). The primary sources of contamination are the
Comments Date:	01311996
Comments:	drums, transformers, or other bulk containers which may have been
Comments Date:	01311996
Comments:	disposed of into the former swimming pool, the secondary source
Comments Date:	01311996
Comments:	of contamination is soil or debris saturated with or containing
Comments Date:	01311996
Comments:	high concentrations of contaminants in the immediate areas
Comments Date:	01311996
Comments:	surrounding the primary source, and the concrete containment of
Comments Date:	01311996
Comments:	the swimming pool area is also considered as a possible secondary
Comments Date:	01311996
Comments:	source. The actual type and quantity of wastes in the pool are
Comments Date:	01311996
Comments:	unknown at this time. If the wastes are not currently adequately
Comments Date:	01311996
Comments:	contained, there is a likelihood that both the subsurface soils
Comments Date:	01311996
Comments:	and/or groundwater may continue to be impacted by the wastes. Due
Comments Date:	01311996
Comments:	to the variety of wastes which may be encountered and the
Comments Date:	01311996
Comments:	differences in treating or disposing of those wastes, a
Comments Date:	01311996
Comments:	combination of alternatives is proposed.
Comments Date:	02021996
Comments:	DES - SITE 10: This is part of OU#1. The drainage channel, which
Comments Date:	02021996
Comments:	was installed prior to 1940, has reportedly received various oils
Comments Date:	02021996
Comments:	, hydraulic fluids, diesel fuel, jet fuel, waste paints, paint s
Comments Date:	02021996
Comments:	trippers, paint thinners, battery acids and solvents. The draina
Comments Date:	02021996
Comments:	ge channel is concretelined (since the 1960s) up to the eastern b
Comments Date:	02021996
Comments:	oundary of the base where it discharges to the Perris Valley stor
Comments Date:	02021996
Comments:	m drain. The objectives of this remediation of contaminated sedi
Comments Date:	02021996
Comments:	ment from Site 10, pursuant to the cleanup criteria set forth in
Comments Date:	02021996
Comments:	Fire Training Area (FTA), Site 15, was developed in 1978 and was
Comments Date:	02021996
Comments:	reportedly constructed by placing an underdrain system and grave
Comments Date:	02021996
Comments:	l over a clay liner. Firefighting water, solutions of Aqueous Fil
Comments Date:	02021996
Comments:	m Forming Form (AFFF) and residual fuel used during training exer

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date:	02021996
Comments:	cises were drained to a formely unlined water holding pond locate
Comments Date:	02021996
Comments:	d adjacent to the FTA. Approximately 6000 gallons per year of co
Comments Date:	02021996
Comments:	ntaminated JP-4 have been burned in training exercises since the
Comments Date:	02021996
Comments:	facility was constructed in 1978. The primary contaminants of co
Comments Date:	02021996
Comments:	ncern are Benzene, Naphthalene, 2-Methylnaphthalene and Phenanthr
Comments Date:	02021996
Comments:	ene. The remedial actions for Site 15 will require the handling
Comments Date:	02021996
Comments:	of two streams; the evaporation pond water and soils contaminated
Comments Date:	02021996
Comments:	with PAHs. Approximately 4,500 gallons of water, from the evapo
Comments Date:	02021996
Comments:	ration pond, will be transferred to a base sewer inlet located on
Comments Date:	02021996
Comments:	e-half mile from Site 15 using a 5,000-gallon vacuum truck suppli
Comments Date:	02021996
Comments:	ed by Environmental Dynamic. Approximately 8,950 tons of contami
Comments Date:	02021996
Comments:	nated soil will be transported off-site to Candelaria Environment
Comments Date:	02021996
Comments:	al for bioremediation. The objectives of this remedial action we
Comments Date:	02021996
Comments:	re set forth in the final OU# 1 Record of Decision (ROD).
Comments Date:	02072000
Comments:	to be conducted at Site 36.
Comments Date:	02072000
Comments:	Site 36 - OM: A dual phase extraction system, which combines soi
Comments Date:	02072000
Comments:	l vapor extraction with groundwater extraction, is in operation a
Comments Date:	02072000
Comments:	t site 36. This document contains the Operation and Maintenance
Comments Date:	02072000
Comments:	(O&M) procedures relating to operation and maintenance activities
Comments Date:	02241999
Comments:	DES - Site 39: The remedial design objective for Site 39 is to
Comments Date:	02241999
Comments:	reduce the contaminant concentrations in the subsurface soil and
Comments Date:	02241999
Comments:	prevent further degradation of groundwater through contaminant
Comments Date:	02241999
Comments:	migration. The remedial system will include the installation of
Comments Date:	02241999
Comments:	a soil bioventing system. The system will be comprised of a
Comments Date:	02241999
Comments:	bioventing (air injection) well, two bioventing monitoring
Comments Date:	02241999
Comments:	proves, conveyance piping, an air blower, and mechanical and
Comments Date:	02241999
Comments:	mechanical and electrical appurtenances. The estimated remedial
Comments Date:	02241999
Comments:	time is 2 years and the volume of soil to be treated is approx.
Comments Date:	02241999

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments:	3000 cubic yards.
Comments Date:	03251996
Comments:	RIFS - SITE 9: The removal of the OW/S will eliminate a potential
Comments Date:	03251996
Comments:	source area for groundwater contamination in the future. This S
Comments Date:	03251996
Comments:	ite Specific Action Memorandum was prepared to evaluate and ident
Comments Date:	03251996
Comments:	ify the most effective remedial alternative to remove the OW/S an
Comments Date:	03251996
Comments:	d dispose of the expected 100 cubic yards of oil contaminated soi
Comments Date:	03251996
Comments:	l. On-base consolidation with Site 6 lined waste cell provides t
Comments Date:	03251996
Comments:	he maximum level of regulatory compliance within the lowest cost
Comments Date:	03251996
Comments:	level and is compatible with land use. Site 9 is recommended for
Comments Date:	03251996
Comments:	military reuse under the Joint Power Authority preferred alterna
Comments Date:	03251996
Comments:	tive. Site 9 vicinity may potentially have Beechy's Squirrel and
Comments Date:	03251996
Comments:	Burrowing Owl, but excavation activities will be focused on the
Comments Date:	03251996
Comments:	OW/S. No potential wetlands are located in Site 9 vicinity. RIF
Comments Date:	03251996
Comments:	S - SITE 1: Soil sampling at Site 1 detected polycyclic aromatic
Comments Date:	03251996
Comments:	hydrocarfons (PAHs) as contaminant of concerns. Ground- water sam
Comments Date:	03251996
Comments:	ples detected metals; however, only manganese was detected above
Comments Date:	03251996
Comments:	US Environmental Protection Agency Preliminary remediation Goals
Comments Date:	03251996
Comments:	(PRGs). Soil from Site 1 was excavated during construction of th
Comments Date:	03251996
Comments:	e Air National Guard Alert Facility. Approximately, 3,100 cubic y
Comments Date:	03251996
Comments:	ards of PAH contaminated soil has been stockpiled on-site under p
Comments Date:	03251996
Comments:	lastic sheeting pending disposal. The risk assessment for Site 1
Comments Date:	03251996
Comments:	determined that no human health risk was present at the site beca
Comments Date:	03251996
Comments:	use the exposure pathway was limited. Now that the soil has been
Comments Date:	03251996
Comments:	disturbed, the soil stockpiled at Site 1 needs to be removed to p
Comments Date:	03251996
Comments:	reclude further exposure. This Site Specific Action Memorandum w
Comments Date:	03251996
Comments:	as prepared to evaluate and identify the most effective disposal
Comments Date:	03251996
Comments:	alternative. The site is planned for Air National Guard use and w
Comments Date:	03251996
Comments:	ill remain in military use. Site 1 is not a habitat for any enda
Comments Date:	03251996
Comments:	ngered species and no perennial wetlands are located in its vicin

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date:	03251996
Comments:	ity.
Comments Date:	04081999
Comments:	RA - SITE 18: The construction of the remedial action for Site 18
Comments Date:	04081999
Comments:	was completed on February 23, 1999 and the system started on
Comments Date:	04081999
Comments:	Friday 26, 1999. The remediation technology for Site 18 is based
Comments Date:	04081999
Comments:	on depressing the groundwater levels to expose contaminated
Comments Date:	04081999
Comments:	saturated soils for cleanup by combined soil vapor extraction,and
Comments Date:	04081999
Comments:	soil aeration/bioventing, free product removal by vaporization
Comments Date:	04081999
Comments:	and phase separation as necessary, and dissolved through the
Comments Date:	04081999
Comments:	groundwater pump and treat and by natural attenuation/biochemical
Comments Date:	04081999
Comments:	degradation mechanisms. The extracted groundwater is pre-treated
Comments Date:	04081999
Comments:	to remove any free product before transfer by pipline to the Site
Comments Date:	04081999
Comments:	31 treatment facility for treatment by granular activated carbon.
Comments Date:	04081999
Comments:	Any free product is collected via skimmer pump and contained for
Comments Date:	04081999
Comments:	disposal. A soil vapor extraction and treatment system (thermal
Comments Date:	04081999
Comments:	oxidizer) unit was installed at site 18 to treat the recovered
Comments Date:	04081999
Comments:	hydrocarbon vapors locally, before discharging to the atmosphere.
Comments Date:	05011996
Comments:	RA - SITE 11: Site 11 is part of OU#2. It includes an area design
Comments Date:	05011996
Comments:	ated as the Liquid Fuels Management, Bulk Storage Facility. The l
Comments Date:	05011996
Comments:	eaking fuel line section was between the tank car unloading dock
Comments Date:	06011999
Comments:	vapor and groundwater to the treatment pad. 4)Installing process
Comments Date:	06011999
Comments:	equipment for treating contaminated soil vapor and groundwater.
Comments Date:	06011999
Comments:	5) Performing system startup including sampling of vapor and
Comments Date:	06011999
Comments:	groundwater, and system optimization.
Comments Date:	06171996
Comments:	O&M Site 33(PANERO): The Site 33 Pump and Treat System (PTS) cons
Comments Date:	06171996
Comments:	ists of flow equalization tanks, an oil-water separator, air stri
Comments Date:	06171996
Comments:	pping, thermal oxidation of air stripper off-gas, and granular ac
Comments Date:	06171996
Comments:	tivated carbon polishing of the air stripper effluent. An interna
Comments Date:	06171996
Comments:	l combustion engine is used to treat vapors recovered by vapor ex
Comments Date:	06171996

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments:	traction of the pumping wells. The PTS is designed to sustain co
Comments Date:	06171996
Comments:	ntinuous operation without direct operator control. Periodic surv
Comments Date:	06171996
Comments:	eillance and maintenance will be required to ensure reliable oper
Comments Date:	06171996
Comments:	ation and compliance with regulatory requirements. Process perfor
Comments Date:	06171996
Comments:	ming monitoring of the vapor and water treatment systems will be
Comments Date:	06171996
Comments:	conducted. This includes on-site sampling and tests of the influ
Comments Date:	06171996
Comments:	ent streams, intermittent treatment points and the effluent strea
Comments Date:	06171996
Comments:	ms to verify satisfactory operation, and timely change-out of the
Comments Date:	06171996
Comments:	GAC treatment units to maintain regulatory discharge limits and
Comments Date:	06171996
Comments:	cost effectiveness. Preventive equipment maintenance tasks, in a
Comments Date:	06171996
Comments:	ccordance with the manufacturers recommend -ations, will be perfo
Comments Date:	06171996
Comments:	rmed along with routine maintenance and record keeping activities
Comments Date:	06171996
Comments:	. Normally, one field technician will be required to perform the
Comments Date:	06171996
Comments:	routine O&M tasks, including well inspections and maintenance, p
Comments Date:	06171996
Comments:	ump overhauls, process instrument calibrations, equipment repairs
Comments Date:	06171996
Comments:	and replacements. The manufacturer shall have local service rep
Comments Date:	06171996
Comments:	resentatives capable of responding to equipment failures or probl
Comments Date:	06171996
Comments:	ems within 3 hours of initial contact.
Comments Date:	07111996
Comments:	O&M - SITE 34: An area near the oil/water separator, which was im
Comments Date:	07111996
Comments:	properly installed and is adjacent to Site 34, has been identifie
Comments Date:	07111996
Comments:	d as a potential source of the mainly hydrocarbon contamination f
Comments Date:	07111996
Comments:	urther to the northwest. In March 1994 the AF installed and bega
Comments Date:	07111996
Comments:	n the operation of a bioventing treatability study project at Sit
Comments Date:	07111996
Comments:	e 34 to determine the effectiveness of bioventing at this site.
Comments Date:	07111996
Comments:	This study was completed in July 1996 and successfully demonstrat
Comments Date:	07111996
Comments:	ed the effectiveness of bioventing for this site. The Operation a
Comments Date:	07111996
Comments:	nd Maintenance (O&M) phase will consist of monthly checks of the
Comments Date:	07111996
Comments:	bioventing system, completion of operation/maintenance/repair man
Comments Date:	07111996
Comments:	uals and respiration tests every 6 months of operation. In addit

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date:	07111996
Comments:	ion, oxygen, carbon dioxide and hydrocarbon concentrations from t
Comments Date:	07111996
Comments:	he vapor monitoring wells will be monitored on a monthly basis. T
Comments Date:	07111996
Comments:	he O&M of the bioventing system will be performed for a duration
Comments Date:	07111996
Comments:	of one year after installation and start-up. Data collected from
Comments Date:	07111996
Comments:	the monthly monitoring is evaluated and used as the basis for ad
Comments Date:	07111996
Comments:	justing the air flow into the subsurface. Preventive equipment m
Comments Date:	07111996
Comments:	aintenance tasks, in accordance with the manufacturers recommenda
Comments Date:	07111996
Comments:	tions, will be performed along with routing maintenance and recor
Comments Date:	07111996
Comments:	d keeping activities. Status reports will be prepared and submit
Comments Date:	07111996
Comments:	ted as required for satisfactory operating control and regulatory
Comments Date:	07111996
Comments:	compliance requirements. Qualified supervisory personnel will o
Comments Date:	07111996
Comments:	versee execution of the O&M tasks to minimize costs, and ensure t
Comments Date:	07111996
Comments:	imely and accurate operating reports. DES -SITE 34: The design
Comments Date:	07111996
Comments:	of the bioventing system was included in the treatability study d
Comments Date:	07111996
Comments:	ocument. A Remedial Action Workplan was submitted in July 1996 t
Comments Date:	07111996
Comments:	hat considered bioventing the final remedial alternative at Site
Comments Date:	07111996
Comments:	34. This is consistent with the Operable Unit #1 (OU#1) signed R
Comments Date:	07111996
Comments:	ecord of Decision (ROD). The primary advantage in using bioventi
Comments Date:	07111996
Comments:	ng is the low cost to install, operate, maintain and monitor the
Comments Date:	07111996
Comments:	system as compared to other remediation technology. The treatabi
Comments Date:	07111996
Comments:	lity study has demonstrated that the bioventing at Site 34 of the
Comments Date:	07111996
Comments:	hydrocarbon contamination is cost effective, has minimal environ
Comments Date:	07111996
Comments:	mental impact and will achieve the cleanup standards set in the O
Comments Date:	07111996
Comments:	U#1 ROD. Bioventing is the process of delivering oxygen by force
Comments Date:	07111996
Comments:	d air into the soil to stimulate or enhance the natural biodegrad
Comments Date:	07111996
Comments:	ation process of petroleum hydrocarbon contaminants within the so
Comments Date:	07111996
Comments:	il. The existing bioventing system at Site 34 was designed with
Comments Date:	07111996
Comments:	excess air injection capacity, therefore, it may be possible to t
Comments Date:	07111996

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments:	ap into this system for use at the adjacent sites. RA - SITE 34
Comments Date:	07111996
Comments:	: Soil contaminants detected during the RI/FS conducted at Site 3
Comments Date:	07111996
Comments:	4 include VOCs, SVOCs, Pesticides/PCBs, Oil and Grease, JP-4 and
Comments Date:	07111996
Comments:	Diesel Fuel. The Air Force (AF) will characterize the newly disc
Comments Date:	07111996
Comments:	overed contamination at Site 34 using a soil gas survey which wil
Comments Date:	07111996
Comments:	l provide potential locations for soil borings based on contamina
Comments Date:	07111996
Comments:	nt concentrations. The AF installed and successfully demonstrated
Comments Date:	07111996
Comments:	the effectiveness of a bioventing system at this Site. The obje
Comments Date:	07111996
Comments:	ctives of this remedial action is to determine the extent of the
Comments Date:	07111996
Comments:	new hydrocarbon contamination at the oil/water separator, to eval
Comments Date:	07111996
Comments:	uate and select the best approach to biovent the site, and to mon
Comments Date:	07111996
Comments:	itor that the bioremedial approach is achieving groundwater prote
Comments Date:	07111996
Comments:	ction standards as established in the OU#1 Record of Decision (RO
Comments Date:	07111996
Comments:	D).
Comments Date:	07241998
Comments:	and soil aeration/bioventing, free product removal by vaporiza-
Comments Date:	07241998
Comments:	tion and phase separation as necessary, and dissolved through the
Comments Date:	07241998
Comments:	groundwater pump and treat and by natural attenuation/biochemical
Comments Date:	07241998
Comments:	degradation mechanisms. The extracted groundwater would be pre-
Comments Date:	07241998
Comments:	treated to remove any free product before transfer by pipeline to
Comments Date:	07241998
Comments:	the Site 31 treatment facility for treatment by granular acti-
Comments Date:	07241998
Comments:	vated carbon. Any free product would be collected via skimmer
Comments Date:	07241998
Comments:	pump and contained for disposal. A soil vapor extraction and
Comments Date:	07241998
Comments:	treatment system(thermal oxidizer) unit will be installed at site
Comments Date:	07241998
Comments:	18 to treat the recovered hydrocarbon vapors locally, before
Comments Date:	07241998
Comments:	discharging to the atmosphere.
Comments Date:	09141995
Comments:	RAP OU#3: This ROD/RAP presents the remedial alternative selected
Comments Date:	09141995
Comments:	to remediate soil and groundwater that is contaminated with petr
Comments Date:	09141995
Comments:	oleum hydrocarbons and solvent beneath Operable Unit #3 (OU#3). O
Comments Date:	09141995
Comments:	U#3, which encompasses the former Panero Fueling facility, is loc

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date: 09141995
Comments: ated on the aircraft apron, between the flightline shops and the
Comments Date: 09141995
Comments: taxiway. The major components of the selected alternative include
Comments Date: 09141995
Comments: : 1. Institutional control, including fencing, site use restri
Comments Date: 09141995
Comments: ction, and deed restriction of groundwater use. 2. Quarterly grou
Comments Date: 09141995
Comments: ndwater monitoring. 3. Continued free product recovery. 4. Soil r
Comments Date: 09141995
Comments: emediation using soil vapor extracion and bioventing. 5. Groundwa
Comments Date: 09141995
Comments: ter source remediation using surfactant and in-situ bioremediatio
Comments Date: 09141995
Comments: n. 6. Groundwater dissolved plume treatment using groundwater pum
Comments Date: 09141995
Comments: p and treat (Air Strippers) system. The remedy is estimated to ac
Comments Date: 09141995
Comments: hieve cleanup goals within 30 years. Approximate cost: $22,251
Comments Date: 09141995
Comments: ,655.00
Comments Date: 11131996
Comments: RAP - OU#3(SITE 33): This Decision Document (DD), which is equivi
Comments Date: 11131996
Comments: lant to a Remedial Action Plan (RAP), presents the selected Remov
Comments Date: 11131996
Comments: al Action upgrade for March Air Reserve Base (MARB) Operable Unit
Comments Date: 11131996
Comments: #3 pump and Treat System. This removal action upgrade is select
Comments Date: 11131996
Comments: ed to increase jet fuel (JP-4) free product recovery rates at OU#
Comments Date: 11131996
Comments: 3. The State of California, both DTSC and the Santa Ana Regional
Comments Date: 11131996
Comments: Water Quality Control Board (RWQCB), signed a Record of Decision
Comments Date: 11131996
Comments: (ROD) for OU#3 in September 1995. However, the US Environmental
Comments Date: 11131996
Comments: Protection Agency(USEPA) and the Air Force Reserves (AFRs) decli
Comments Date: 11131996
Comments: ned to sign the ROD at the last minute; the USEPA invoking the pe
Comments Date: 11131996
Comments: troleum exclusion section of CERCLA and the AFRs stating that the
Comments Date: 11131996
Comments: preferred alternative in the ROD is too expensive. Therefore, a
Comments Date: 11131996
Comments: fter considerable efforts, all parties agreed to expand and upgra
Comments Date: 11131996
Comments: de the existing free product recovery system as an interim remedy
Comments Date: 11131996
Comments: for the JP-4 free product beneath OU#3. This action addresses o
Comments Date: 11131996
Comments: nly JP-4 free product and does not address all contamination rema
Comments Date: 11131996
Comments: ining at the site. the DD went through the RAP requirement of pu
Comments Date: 11131996

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments:	blic review and comment.
Comments Date:	05011996
Comments:	discovered when March AFB personnel noticed a loss in line press
Comments Date:	05011996
Comments:	ure during an integrity test of a section of the line between the
Comments Date:	05011996
Comments:	fuel pump station and the flight line. Visual indications of a
Comments Date:	05011996
Comments:	fuel leak were also observed in and around the concrete valult lo
Comments Date:	05011996
Comments:	cated adjacent to the fuel pump station. The objective of the Imm
Comments Date:	05011996
Comments:	ediate Response Action was to remove and replace the leaking sect
Comments Date:	05011996
Comments:	ion of the sub-surface JP-8 fuel line. This was accomplished with
Comments Date:	05011996
Comments:	in a very tight schedule (approx. seven days) to prevent the use
Comments Date:	05011996
Comments:	of outside trucks for delivery of fuels to the aircrafts. The re
Comments Date:	05011996
Comments:	moval action consisted of trenching to expose the sub-surface fue
Comments Date:	05011996
Comments:	l lines and associated vault area including the demolishing and r
Comments Date:	05011996
Comments:	emoval of overlaying asphalt and concrete, the removal of a 230 f
Comments Date:	05011996
Comments:	oot of JP-8 fuel line and a 210 foot section of an inactive JP-8
Comments Date:	05011996
Comments:	line was also removed, the placement of a new 8 inch steel JP-8 f
Comments Date:	05011996
Comments:	uel line and a 12 inch steel road crossing sleeve and reconstruct
Comments Date:	05011996
Comments:	ion of demolished concrete vault. Approximately, 380 cubic yards
Comments Date:	05011996
Comments:	of contaminated soil was removed and stockpiled at Site 15 for r
Comments Date:	05011996
Comments:	emediation. Upon getting the new pipe section on-line the general
Comments Date:	05011996
Comments:	site area was landscaped and restored to the original condition
Comments Date:	05011996
Comments:	to the extent possible. This included the backfilling maximum dr
Comments Date:	05011996
Comments:	y density of the soil, and the replacement of the overlaying asph
Comments Date:	05011996
Comments:	alt.
Comments Date:	05081996
Comments:	DES - SITE 31: This is part of OU #1. The practice of dis- charg
Comments Date:	05081996
Comments:	ing solvents on the ground reportedly occurred from about the mid
Comments Date:	05081996
Comments:	-1950s to the mid-1970s. In addition, floor drains from maintenan
Comments Date:	05081996
Comments:	ce shops may have leaked solvents to the subsurface. The primary
Comments Date:	05081996
Comments:	contaminants of concern at Site 31 are Trichloro- ethylene (PCE),
Comments Date:	05081996
Comments:	and traces of other chlorinated solvents. The contaminants are

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date:	05081996
Comments:	contained within the soils and the groundwater and will require r
Comments Date:	05081996
Comments:	emediation to prevent further contamination of the OU#1 groundwat
Comments Date:	05081996
Comments:	er. Extensive studies to identify source locations, determine si
Comments Date:	05081996
Comments:	te characteristics and evaluate cost effective remedial alternati
Comments Date:	05081996
Comments:	ves have been performed. A dual phase extraction technology coup
Comments Date:	05081996
Comments:	led with granular activated carbon treatment of extracted groundw
Comments Date:	05081996
Comments:	ater and soil vapor has been selected based on a pilot scale syst
Comments Date:	05081996
Comments:	em shown to be a cost- effective method for remediation of this S
Comments Date:	05081996
Comments:	ite. The treatment system shall discharge treated water that wi
Comments Date:	05081996
Comments:	ll have a daily average concentration of 0.5 ppb TCE or less, and
Comments Date:	05081996
Comments:	never will exceed a concentration of 5 ppb TCE. Treated groundw
Comments Date:	05081996
Comments:	ater will be reinjected into the aquifer combined with discharge
Comments Date:	05081996
Comments:	of excess water to the Heacock Storm drain and/or the base sanita
Comments Date:	05081996
Comments:	ry sewer system, as required. Installation of process equipment,
Comments Date:	05081996
Comments:	surface piping and electrical facilities is planned for the end
Comments Date:	05081996
Comments:	of April, and startup of the system July 1996. This remedial act
Comments Date:	05081996
Comments:	ion complies with the statutory preference for remedies as specif
Comments Date:	05081996
Comments:	ied in the Record of Decision (ROD) for OU#1. O&M SITE 31: The
Comments Date:	05081996
Comments:	Site 31 dual phase extraction and treatment system is designed to
Comments Date:	05081996
Comments:	sustain continuous operation without direct operator control. P
Comments Date:	05081996
Comments:	eriodic surveillance and maintenance will be required to ensure r
Comments Date:	05081996
Comments:	eliable operation and compliance with regulatory requirement. Pr
Comments Date:	05081996
Comments:	ocess performing monitoring of the vapor and water treatment syst
Comments Date:	05081996
Comments:	ems will be conducted. This includes on-site sampling and tests
Comments Date:	05081996
Comments:	of the influent streams, intermittent treatment points and the ef
Comments Date:	05081996
Comments:	fluent streams to verify satisfactory operation, and timely chang
Comments Date:	05081996
Comments:	e-out of the GAC treat- ment units to maintain regulatory dischar
Comments Date:	05081996
Comments:	ge limits and cost effectiveness. Preventive equipment maintenan
Comments Date:	05081996

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments: ce tasks, in accordance with the manufacturers recommendations, w
Comments Date: 05081996
Comments: ill be performed along with routine maintenance and record keepin
Comments Date: 05081996
Comments: g activities. It is expected that the carbon change-out frequenc
Comments Date: 05081996
Comments: y will gradually decrease as the soil and groundwater contaminant
Comments Date: 05081996
Comments: levels decline with ongoing treatment. Initially the change-out
Comments Date: 05081996
Comments: s may occur once every 1-2 months and subsequently may decrease t
Comments Date: 05081996
Comments: o once or twice a year for the groundwater treatment system. Norm
Comments Date: 05081996
Comments: ally, one field technician will be required to perform the routin
Comments Date: 05081996
Comments: e O&M tasks, including wells inspections and maintenance, pump ov
Comments Date: 05081996
Comments: erhauls, process instrument calibrations, equipment repairs and r
Comments Date: 05081996
Comments: eplacements. Status reports along with analytical results and di
Comments Date: 05081996
Comments: scharge records will be prepared and submitted as reqired for sat
Comments Date: 05081996
Comments: isfactory operating control and regulatory compliance requirement
Comments Date: 05081996
Comments: s. Qualified supervisory personnel will oversee execution of the
Comments Date: 05081996
Comments: O&M tasks to minimize costs, and ensure timely and accurate oper
Comments Date: 05081996
Comments: ating reports.
Comments Date: 06011999
Comments: RA - SITE 36: The remedial action for Site 36 was completed on
Comments Date: 06011999
Comments: March 15, 1999. It included the installation of a groundwater
Comments Date: 06011999
Comments: extraction and treatment system in combination with a system for
Comments Date: 06011999
Comments: soil vapor extraction (SVE). A remedial design of this system
Comments Date: 06011999
Comments: was approved by DTSC on April 7, 1998. The Site 36 system
Comments Date: 06011999
Comments: includes conveyance piping, process vessels, and electrical and
Comments Date: 06011999
Comments: mechanical appurtenances. The remedial activities conducted at
Comments Date: 06011999
Comments: Site 36 included: 1) Installing a submersible pump into each of
ID Name: Not reported
ID Value: Not reported
Alternate Name: ALESSANDRO ARMY AIR FIELD|March Air Reserve Base
Special Programs Code: DSMOA
Special Programs Name: DEFENSE MEMORANDUM OF AGREEMENT

CORTESE:
Region: CORTESE
Envirostor Id: 33970004
Site/Facility Type: FEDERAL SUPERFUND - LISTED

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR RESERVE BASE (Continued) **S104241831**

Cleanup Status:	ACTIVE
Status Date:	07/13/1998
Site Code:	400689
Latitude:	34.090000
Longitude:	-117.26305
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	envirostor
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported

ENVIROSTOR:

Facility ID:	33970004
Status:	Active
Status Date:	07/13/1998
Site Code:	400689
Site Type:	Federal Superfund
Site Type Detailed:	Open Base
Acres:	2500
NPL:	YES
Regulatory Agencies:	SMBRP, RWQCB 8 - Santa Ana, US EPA
Lead Agency:	US EPA
Program Manager:	Stephen Niou
Supervisor:	Robert Senga
Division Branch:	Cleanup Cypress
Assembly:	40
Senate:	23
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	DERA
Latitude:	34.09
Longitude:	-117.2630
APN:	NONE SPECIFIED
Past Use:	AIRCRAFT MAINTENANCE, AIRFIELD OPERATIONS, DEGREASING FACILITY, DRY CLEANING, ENGINE TESTING/REPAIR, FIRE TRAINING AREAS, FUEL - AIRCRAFT STORAGE/ REFUELING, FUEL - VEHICLE STORAGE/ REFUELING, LANDFILL - DOMESTIC, MACHINE SHOP, OFFICE BUILDING, OIL/WATER SEPARATORS, PAINT/DEPAINT FACILITY
Potential COC:	Lead Polychlorinated biphenyls (PCBs Polynuclear aromatic hydrocarbons (PAHs Tetrachloroethylene (PCE TPH-diesel TPH-JET FUEL 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Carbon tetrachloride Chloroform
Confirmed COC:	30013-NO 30018-NO Polynuclear aromatic hydrocarbons (PAHs Tetrachloroethylene (PCE TPH-diesel 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Chloroform Carbon tetrachloride TPH-JET FUEL
Potential Description:	OTH, SOIL
Alias Name:	ALESSANDRO ARMY AIR FIELD
Alias Type:	Alternate Name
Alias Name:	|
Alias Type:	Alternate Name

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Alias Name: 110033608665
Alias Type: EPA (FRS #)
Alias Name: T10000005654
Alias Type: GeoTracker Global ID
Alias Name: T10000005916
Alias Type: GeoTracker Global ID
Alias Name: 16985
Alias Type: RB-PCA
Alias Name: 400689
Alias Type: Project Code (Site Code)
Alias Name: 33970004
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: OU2
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 09/29/2005
Comments: DTSC has concurred with the OU2A ROD of March Air Reserve Base. The OU2A ROD addresses Sites 1, 11, 37, and 39. The key provisions of this ROD include institutional controls for Sites 1 and 11 where residual PAHs exist in the soil that are incompatible with unrestricted land use. The Air Force agreed to incorporate institutional control provisions into the base master plan. In case of base closure, the AF will require the purchasers to enter into State land Use Covenants with DTSC as a condition of land transfer. Sites 37 and 39 require no further actions.

Completed Area Name: OU 1
Completed Sub Area Name: STE34
Completed Document Type: * Remedial or Removal Design
Completed Date: 07/11/1996
Comments: Not reported

Completed Area Name: PCAS
Completed Sub Area Name: STE33
Completed Document Type: * Remedial or Removal Design
Completed Date: 07/08/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PANER
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/17/1996
Comments: O&M Site 33(PANERO): The Site 33 Pump and Treat System (PTS) consists of flow equalization tanks, an oil-water separator, air stripping, thermal oxidation of air stripper off-gas, and granular activated carbon polishing of the air stripper effluent. An internal combustion engine is used to treat vapors recovered by vapor extraction of the pumping wells. The PTS is designed to sustain continuous operation without direct operator control. Periodic surveillance and maintenance will be required to ensure reliable operation and compliance with regulatory requirements. Process performing monitoring of the vapor and water treatment systems will be conducted. This includes on-site sampling and tests of the influent streams, intermittent treatment points and the effluent streams to verify satisfactory operation, and timely change-out of the GAC treatment units to maintain regulatory discharge limits and cost

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR RESERVE BASE (Continued) **S104241831**

effectiveness. Preventive equipment maintenance tasks, in accordance with the manufacturers recommend -ations, will be performed along with routine maintenance and record keeping activities. Normally, one field technician will be required to perform the routine O&M tasks, including well inspections and maintenance, pump overhauls, process instrument calibrations, equipment repairs and replacements. The manufacturer shall have local service representatives capable of responding to equipment failures or problems within 3 hours of initial contact.

Completed Area Name: OU2
Completed Sub Area Name: STE39
Completed Document Type: Removal Action Completion Report
Completed Date: 03/12/1999
Comments: Not reported

Completed Area Name: OU2
Completed Sub Area Name: STE39
Completed Document Type: * Remedial or Removal Design
Completed Date: 02/23/1999
Comments: Not reported

Completed Area Name: OU2
Completed Sub Area Name: STE36
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/07/2000
Comments: Site 36 - OM: A dual phase extraction system, which combines soil vapor extraction with groundwater extraction, is in operation at site 36. This document contains the Operation and Maintenance (O&M) procedures relating to operation and maintenance activities to be conducted at Site 36.

Completed Area Name: OU2
Completed Sub Area Name: STE36
Completed Document Type: Removal Action Completion Report
Completed Date: 05/26/1999
Comments: Not reported

Completed Area Name: PCAS
Completed Sub Area Name: STE18
Completed Document Type: * Remedial or Removal Design
Completed Date: 07/21/1998
Comments: Not reported

Completed Area Name: OU2
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 08/26/2005
Comments: Although there are unresolved issues, DTSC agrees the finalization of the work plan and leaves comments on fate and transport of VOCs and on off-base migration of VOC plumes to be discussed/disputed when the RI report becomes available.

Completed Area Name: OU 1
Completed Sub Area Name: EGETS
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/04/2006

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments: The 1st Quarter 2006 OU1 Process Monitoring report is finalized

Completed Area Name: OU 1
Completed Sub Area Name: EGETS
Completed Document Type: Operations and Maintenance Report
Completed Date: 12/27/2007
Comments: As a secondary document, no comment letter is required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 08/01/2003
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision w/ESD
Completed Date: 01/29/2014
Comments: The remedy for site soil has been changed to excavation and disposal

Completed Area Name: OU 1
Completed Sub Area Name: FT29
Completed Document Type: Remedial Investigation Report
Completed Date: 08/20/2013
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 08/19/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 08/19/2013
Comments: Not reported

Completed Area Name: * BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Quality Assurance Workplan
Completed Date: 08/08/2013
Comments: Accepted on Aug 8, 2013

Completed Area Name: * BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/16/2013
Comments: Not reported

Completed Area Name: * BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Long Term Monitoring Report
Completed Date: 12/18/2013
Comments: Not reported

Completed Area Name: Sites With No Operable Unit

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Completed Sub Area Name: Site 49
Completed Document Type: Monitoring Report
Completed Date: 08/21/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 03/12/2014
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: SIT31
Completed Document Type: Operations and Maintenance Plan
Completed Date: 05/08/1996
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: SIT31
Completed Document Type: * Remedial or Removal Design
Completed Date: 05/08/1996
Comments: DES - SITE 31: This is part of OU #1. The practice of dis- charging solvents on the ground reportedly occurred from about the mid-1950s to the mid-1970s. In addition, floor drains from maintenance shops may have leaked solvents to the subsurface. The primary contaminants of concern at Site 31 are Trichloro- ethylene (PCE), and traces of other chlorinated solvents. The contaminants are contained within the soils and the groundwater and will require remediation to prevent further contamination of the OU#1 groundwater. Extensive studies to identify source locations, determine site characteristics and evaluate cost effective remedial alternatives have been performed. A dual phase extraction technology coupled with granular activated carbon treatment of extracted groundwater and soil vapor has been selected based on a pilot scale system shown to be a cost- effective method for remediation of this Site. The treatment system shall discharge treated water that will have a daily average concentration of 0.5 ppb TCE or less, and never will exceed a concentration of 5 ppb TCE. Treated groundwater will be reinjected into the aquifer combined with discharge of excess water to the Heacock Storm drain and/or the base sanitary sewer system, as required. Installation of process equipment, surface piping and electrical facilities is planned for the end of April, and startup of the system July 1996. This remedial action complies with the statutory preference for remedies as specified in the Record of Decision (ROD) for OU#1. ‘ O&M SITE 31: The Site 31 dual phase extraction and treatment system is designed to sustain continuous operation without direct operator control. Periodic surveillance and maintenance will be required to ensure reliable operation and compliance with regulatory requirement. Process performing monitoring of the vapor and water treatment systems will be conducted. This includes on-site sampling and tests of the influent streams, intermittent treatment points and the effluent streams to verify satisfactory operation, and timely change-out of the GAC treat- ment units to maintain regulatory discharge limits and cost effectiveness. Preventive equipment maintenance tasks, in accordance with the manufacturers recommendations, will be performed along with routine maintenance and record keeping activities. It is expected that the carbon change-out

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MARCH AIR RESERVE BASE (Continued) **S104241831**

frequency will gradually decrease as the soil and groundwater contaminant levels decline with ongoing treatment. Initially the change-outs may occur once every 1-2 months and subsequently may decrease to once or twice a year for the groundwater treatment system. Normally, one field technician will be required to perform the routine O&M tasks, including wells inspections and maintenance, pump overhauls, process instrument calibrations, equipment repairs and replacements. Status reports along with analytical results and discharge records will be prepared and submitted as reqired for satisfactory operating control and regulatory compliance requirements. Qualified supervisory personnel will oversee execution of the O&M tasks to minimize costs, and ensure timely and accurate operating reports.

Completed Area Name: OU2
Completed Sub Area Name: SIT11
Completed Document Type: Removal Action Completion Report
Completed Date: 05/01/1996
Comments: RA - SITE 11: Site 11 is part of OU#2. It includes an area designated as the Liquid Fuels Management, Bulk Storage Facility. The leaking fuel line section was between the tank car unloading dock (Fuel Pump Station Building 2202 and Building 2340. These fuel lines transport fuels from the fuel storage tanks tot he flight line to enable refueling of aircraft. Leakage of the fuel line was discovered when March AFB personnel noticed a loss in line pressure during an integrity test of a section of the line between the fuel pump station and the flight line. Visual indications of a fuel leak were also observed in and around the concrete valult located adjacent to the fuel pump station. The objective of the Immediate Response Action was to remove and replace the leaking section of the sub-surface JP-8 fuel line. This was accomplished within a very tight schedule (approx. seven days) to prevent the use of outside trucks for delivery of fuels to the aircrafts. The removal action consisted of trenching to expose the sub-surface fuel lines and associated vault area including the demolishing and removal of overlaying asphalt and concrete, the removal of a 230 foot of JP-8 fuel line and a 210 foot section of an inactive JP-8 line was also removed, the placement of a new 8 inch steel JP-8 fuel line and a 12 inch steel road crossing sleeve and reconstruction of demolished concrete vault. Approximately, 380 cubic yards of contaminated soil was removed and stockpiled at Site 15 for remediation. Upon getting the new pipe section on-line the general site area was landscaped and restored to the original condition to the extent possible. This included the backfilling maximum dry density of the soil, and the replacement of the overlaying asphalt.

Completed Area Name: OU2
Completed Sub Area Name: STE 1
Completed Document Type: Feasibility Study Report
Completed Date: 03/25/1996
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: STE 9
Completed Document Type: Feasibility Study Report
Completed Date: 03/25/1996
Comments: RIFS - SITE 9: The removal of the OW/S will eliminate a potential

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MARCH AIR RESERVE BASE (Continued) **S104241831**

source area for groundwater contamination in the future. This Site Specific Action Memorandum was prepared to evaluate and identify the most effective remedial alternative to remove the OW/S and dispose of the expected 100 cubic yards of oil contaminated soil. On-base consolidation with Site 6 lined waste cell provides the maximum level of regulatory compliance within the lowest cost level and is compatible with land use. Site 9 is recommended for military reuse under the Joint Power Authority preferred alternative. Site 9 vicinity may potentially have Beechy's Squirrel and Burrowing Owl, but excavation activities will be focused on the OW/S. No potential wetlands are located in Site 9 vicinity. ' RIFS - SITE 1: Soil sampling at Site 1 detected polycyclic aromatic hydrocarfons (PAHs) as contaminant of concerns. Ground- water samples detected metals; however, only manganese was detected above US Environmental Protection Agency Preliminary remediation Goals (PRGs). Soil from Site 1 was excavated during construction of the Air National Guard Alert Facility. Approximately, 3,100 cubic yards of PAH contaminated soil has been stockpiled on-site under plastic sheeting pending disposal. The risk assessment for Site 1 determined that no human health risk was present at the site because the exposure pathway was limited. Now that the soil has been disturbed, the soil stockpiled at Site 1 needs to be removed to preclude further exposure. This Site Specific Action Memorandum was prepared to evaluate and identify the most effective disposal alternative. The site is planned for Air National Guard use and will remain in military use. Site 1 is not a habitat for any endangered species and no perennial wetlands are located in its vicinity.

Completed Area Name: OU 1
Completed Sub Area Name: STE10
Completed Document Type: * Remedial or Removal Design
Completed Date: 02/02/1996
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: STE15
Completed Document Type: * Remedial or Removal Design
Completed Date: 02/02/1996
Comments: DES - SITE 10: This is part of OU#1. The drainage channel, which was installed prior to 1940, has reportedly received various oils , hydraulic fluids, diesel fuel, jet fuel, waste paints, paint strippers, paint thinners, battery acids and solvents. The drainage channel is concretelined (since the 1960s) up to the eastern boundary of the base where it discharges to the Perris Valley storm drain. The objectives of this remediation of contaminated sediment from Site 10, pursuant to the cleanup criteria set forth in the final OU#1 Record of Decision (ROD). Approximately 15 cubic yards of sediment material will be removed from the concrete-lined channel and transported off-site to Candelaria Environmental for bioremediation. ' DES - SITE 15: This is also part of OU#1. The Fire Training Area (FTA), Site 15, was developed in 1978 and was reportedly constructed by placing an underdrain system and gravel over a clay liner. Firefighting water, solutions of Aqueous Film Forming Form (AFFF) and residual fuel used during training exercises were drained to a formely unlined water holding pond located adjacent to the FTA. Approximately 6000 gallons per year of contaminated JP-4 have been burned in training exercises since the facility was constructed in 1978. The primary contaminants

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of concern are Benzene, Naphthalene, 2-Methylnaphthalene and Phenanthrene. The remedial actions for Site 15 will require the handling of two streams; the evaporation pond water and soils contaminated with PAHs. Approximately 4,500 gallons of water, from the evaporation pond, will be transferred to a base sewer inlet located one-half mile from Site 15 using a 5,000-gallon vacuum truck supplied by Environmental Dynamic. Approximately 8,950 tons of contaminated soil will be transported off-site to Candelaria Environmental for bioremediation. The objectives of this remedial action were set forth in the final OU# 1 Record of Decision (ROD).

Completed Area Name: OU-3
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 09/14/1995
Comments: RAP OU#3: This ROD/RAP presents the remedial alternative selected to remediate soil and groundwater that is contaminated with petroleum hydrocarbons and solvent beneath Operable Unit #3 (OU#3). OU#3, which encompasses the former Panero Fueling facility, is located on the aircraft apron, between the flightline shops and the taxiway. The major components of the selected alternative include: 1. Institutional control, including fencing, site use restriction, and deed restriction of groundwater use. 2. Quarterly groundwater monitoring. 3. Continued free product recovery. 4. Soil remediation using soil vapor extracion and bioventing. 5. Groundwater source remediation using surfactant and in-situ bioremediation. 6. Groundwater dissolved plume treatment using groundwater pump and treat (Air Strippers) system. The remedy is estimated to achieve cleanup goals within 30 years. Approximate cost: $22,251,655.00

Completed Area Name: OU 1
Completed Sub Area Name: STE34
Completed Document Type: Removal Action Completion Report
Completed Date: 07/11/1996
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: STE34
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/11/1996
Comments: O&M - SITE 34: An area near the oil/water separator, which was improperly installed and is adjacent to Site 34, has been identified as a potential source of the mainly hydrocarbon contamination further to the northwest. In March 1994 the AF installed and began the operation of a bioventing treatability study project at Site 34 to determine the effectiveness of bioventing at this site. This study was completed in July 1996 and successfully demonstrated the effectiveness of bioventing for this site. The Operation and Maintenance (O&M) phase will consist of monthly checks of the bioventing system, completion of operation/maintenance/repair manuals and respiration tests every 6 months of operation. In addition, oxygen, carbon dioxide and hydrocarbon concentrations from the vapor monitoring wells will be monitored on a monthly basis. The O&M of the bioventing system will be performed for a duration of one year after installation and start-up. Data collected from the monthly monitoring is evaluated and used as the basis for adjusting the air flow into the subsurface. Preventive equipment maintenance tasks, in accordance

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with the manufacturers recommendations, will be performed along with routing maintenance and record keeping activities. Status reports will be prepared and submitted as required for satisfactory operating control and regulatory compliance requirements. Qualified supervisory personnel will oversee execution of the O&M tasks to minimize costs, and ensure timely and accurate operating reports. ‘ DES -SITE 34: The design of the bioventing system was included in the treatability study document. A Remedial Action Workplan was submitted in July 1996 that considered bioventing the final remedial alternative at Site 34. This is consistent with the Operable Unit #1 (OU#1) signed Record of Decision (ROD). The primary advantage in using bioventing is the low cost to install, operate, maintain and monitor the system as compared to other remediation technology. The treatability study has demonstrated that the bioventing at Site 34 of the hydrocarbon contamination is cost effective, has minimal environmental impact and will achieve the cleanup standards set in the OU#1 ROD. Bioventing is the process of delivering oxygen by forced air into the soil to stimulate or enhance the natural biodegradation process of petroleum hydrocarbon contaminants within the soil. The existing bioventing system at Site 34 was designed with excess air injection capacity, therefore, it may be possible to tap into this system for use at the adjacent sites. ‘ RA - SITE 34: Soil contaminants detected during the RI/FS conducted at Site 34 include VOCs, SVOCs, Pesticides/PCBs, Oil and Grease, JP-4 and Diesel Fuel. The Air Force (AF) will characterize the newly discovered contamination at Site 34 using a soil gas survey which will provide potential locations for soil borings based on contaminant concentrations. The AF installed and successfully demonstrated the effectiveness of a bioventing system at this Site. The objectives of this remedial action is to determine the extent of the new hydrocarbon contamination at the oil/water separator, to evaluate and select the best approach to biovent the site, and to monitor that the bioremedial approach is achieving groundwater protection standards as established in the OU#1 Record of Decision (ROD).

Completed Area Name: OU-3
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 11/13/1996
Comments: RAP - OU#3(SITE 33): This Decision Document (DD), which is equivilant to a Remedial Action Plan (RAP), presents the selected Removal Action upgrade for March Air Reserve Base (MARB) Operable Unit #3 pump and Treat System. This removal action upgrade is selected to increase jet fuel (JP-4) free product recovery rates at OU#3. The State of California, both DTSC and the Santa Ana Regional Water Quality Control Board (RWQCB), signed a Record of Decision (ROD) for OU#3 in September 1995. However, the US Environmental Protection Agency(USEPA) and the Air Force Reserves (AFRs) declined to sign the ROD at the last minute; the USEPA invoking the petroleum exclusion section of CERCLA and the AFRs stating that the preferred alternative in the ROD is too expensive. Therefore, after considerable efforts, all parties agreed to expand and upgrade the existing free product recovery system as an interim remedy for the JP-4 free product beneath OU#3. This action addresses only JP-4 free product and does not address all contamination remaining at the site. the DD went through the RAP requirement of public review and comment.

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Completed Area Name: PCAS
Completed Sub Area Name: STE18
Completed Document Type: Removal Action Completion Report
Completed Date: 04/07/1999
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/12/2006
Comments: Not reported

Completed Area Name: PCAS
Completed Sub Area Name: SITE2
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/05/2007
Comments: routine monitoring report

Completed Area Name: PCAS
Completed Sub Area Name: STE18
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/05/2007
Comments: routine monitoring report

Completed Area Name: PCAS
Completed Sub Area Name: STE27
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/05/2007
Comments: routine monitoring report

Completed Area Name: PCAS
Completed Sub Area Name: STE33
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/05/2007
Comments: Routine monitoring report reviewed by RWQCB

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 10/30/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 09/02/2009
Comments: 5 year review report accepted

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/08/2010
Comments: The report may be finalized

Completed Area Name: OU 1
Completed Sub Area Name: EGETS
Completed Document Type: Operations and Maintenance Plan Amendment

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Completed Date: 01/06/2011
Comments: DTSC sent a no-comment letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Long Term Monitoring Report
Completed Date: 04/19/2011
Comments: Secondary document, no approval required.

Completed Area Name: OU2
Completed Sub Area Name: SITE8
Completed Document Type: Pilot/Treatability Study Report
Completed Date: 03/29/2012
Comments: Data to be used in Sites 8 & 36 FFS

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/08/2014
Comments: secondary document for groundwater monitoring data

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 08/01/2004
Comments: Not reported

Future Area Name: OU2
Future Sub Area Name: SITE8
Future Document Type: Remedial Investigation Report
Future Due Date: 2016
Future Area Name: Sites With No Operable Unit
Future Sub Area Name: Site 49
Future Document Type: Design/Implementation Workplan
Future Due Date: 2016
Future Area Name: OU2
Future Sub Area Name: STE36
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Future Area Name: OU2
Future Sub Area Name: STE36
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Future Area Name: Sites With No Operable Unit
Future Sub Area Name: Site 49
Future Document Type: Record of Decision
Future Due Date: 2015
Future Area Name: OU 1
Future Sub Area Name: Site 5
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Future Area Name: OU 1
Future Sub Area Name: Site 5
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Future Area Name: OU2
Future Sub Area Name: STE 1

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR RESERVE BASE (Continued) **S104241831**

Future Document Type:	Record of Decision - Amendment
Future Due Date:	2017
Future Area Name:	OU2
Future Sub Area Name:	STE 1
Future Document Type:	Proposed Plan
Future Due Date:	2017
Future Area Name:	OU 1
Future Sub Area Name:	STE34
Future Document Type:	Removal Action Completion Report
Future Due Date:	2015
Future Area Name:	OU2
Future Sub Area Name:	SITE8
Future Document Type:	Record of Decision
Future Due Date:	2016
Future Area Name:	OU2
Future Sub Area Name:	SITE8
Future Document Type:	Proposed Plan
Future Due Date:	2016
Future Area Name:	Sites With No Operable Unit
Future Sub Area Name:	Site 49
Future Document Type:	Operations and Maintenance Report
Future Due Date:	2016
Future Area Name:	Sites With No Operable Unit
Future Sub Area Name:	Site 49
Future Document Type:	Operations and Maintenance Report
Future Due Date:	2016
Future Area Name:	OU2
Future Sub Area Name:	STE36
Future Document Type:	Remedial Action Completion Report
Future Due Date:	2016
Future Area Name:	OU2
Future Sub Area Name:	STE36
Future Document Type:	Design/Implementation Workplan
Future Due Date:	2015
Future Area Name:	Sites With No Operable Unit
Future Sub Area Name:	Site 49
Future Document Type:	Operations and Maintenance Report
Future Due Date:	2015
Future Area Name:	OU 1
Future Sub Area Name:	FT29
Future Document Type:	Record of Decision - Amendment
Future Due Date:	2016
Future Area Name:	OU 1
Future Sub Area Name:	FT29
Future Document Type:	Proposed Plan
Future Due Date:	2015
Future Area Name:	OU2
Future Sub Area Name:	STE 1
Future Document Type:	Remedial Investigation Report
Future Due Date:	2016
Future Area Name:	OU 1
Future Sub Area Name:	Not reported
Future Document Type:	Record of Decision
Future Due Date:	2017
Schedule Area Name:	Sites With No Operable Unit
Schedule Sub Area Name:	Site 49
Schedule Document Type:	Remedial Investigation / Feasibility Study

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MAP FINDINGS

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

MARCH AIR RESERVE BASE (Continued) **S104241831**

Schedule Due Date: 04/21/2015
Schedule Revised Date: Not reported

B8
NW
1/2-1
0.520 mi.
2747 ft.

MARCH AIR FORCE BASE - SITE 40 **CA HIST Cal-Sites** **S102008377**
7,123 ACRES; EAST OF RIVERSIDE, CA **N/A**
RIVERSIDE, CA 92518

Site 5 of 6 in cluster B

Relative:
Higher

Actual:
1483 ft.

Calsite:

Region:	GLENDALE
Facility ID:	33970003
Facility Type:	CLOSE
Type:	CLOSED MILITARY BASE
Branch:	SO
Branch Name:	OMF-SOUTHERN CALIF
File Name:	Not reported
State Senate District:	10041995
Status:	CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT
Status Name:	CERTIFIED
Lead Agency:	ENVIRONMENTAL PROTECTION AGENCY
NPL:	Not Listed
SIC Code:	97
SIC Name:	NATIONAL SECURITY/INTERNATIONAL AFFAIRS
Access:	Not reported
Cortese:	Not reported
Hazardous Ranking Score:	Not reported
Date Site Hazard Ranked:	Not reported
Groundwater Contamination:	Confirmed
Staff Member Responsible for Site:	Not reported
Supervisor Responsible for Site:	Not reported
Region Water Control Board:	Not reported
Region Water Control Board Name:	Not reported
Lat/Long Direction:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported
Lat/Long Description:	Not reported
State Assembly District Code:	64
State Senate District Code:	36
Facility ID:	33970003
Activity:	RA
Activity Name:	REMOVAL ACTION
AWP Code:	STE40
Proposed Budget:	0
AWP Completion Date:	06281995
Revised Due Date:	Not reported
Comments Date:	06281995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	214
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR FORCE BASE - SITE 40 (Continued) **S102008377**

Activity Comments:	EXCAVATION AND OFF-SITE DISPOSAL OF 70 5-GAL TO 20-GAL DRUMS, 30 55GAL DRUMS, 14 TONS OF DEBRIS CONTAINING ASBESTOS, 200 CY OF CONTAMINATEDSOIL, AND 6800 CY OF NON-HAZARDOUS MATERIALS REMOVED.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970003
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	STE40
Proposed Budget:	0
AWP Completion Date:	10131994
Revised Due Date:	Not reported
Comments Date:	10131994
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	33970003
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	STE40
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	10041995
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	N
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	22 CSG/CC
Alternate City,St,Zip:	RIVERSIDE, CA 92518

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

MARCH AIR FORCE BASE - SITE 40 (Continued) **S102008377**

Alternate Address:	7,123 ACRES; EAST OF RIVERSIDE, CA
Alternate City,St,Zip:	RIVERSIDE, CA 92518
Background Info:	Site 40 is a former landfill used for disposing wastes from March AFB. Site 40 is approximately 18 acres of rolling land and the c entral portion of the property consists of a pond which accumulat es surface runoff. Buried drums at this landfill were filled wit h sodium hydroxide, roofing tar, asphalt solids and waste, and oi l and grease. There is potential contamination of the surface an d storm water due to exposure to the drums and debris. March AFB was included on the NPL in 1989. A Federal Facilities Agreement (FFA) was signed between EPA, DHS, the Santa Ana RWQCB and the Ai r Force in September 1990, to provide for the remediation of the Base. For details on other efforts at March AFB refer to March AF B site IDNUN 33970002.
Comments Date:	04301992
Comments:	Landfill #8, Site 40 fence and posted complete. This land-
Comments Date:	04301992
Comments:	fill was exposed when a water tank overflowed after rain,
Comments Date:	04301992
Comments:	and washed down a gulley north of Van Buren Blvd. and west
Comments Date:	04301992
Comments:	of Plummer Road.
Comments Date:	06281995
Comments:	Removal Action (RA) - The primary objective of this time- critica
Comments Date:	06281995
Comments:	l RA was to prevent potential contamination of the surface and st
Comments Date:	06281995
Comments:	orm water in the channel due to exposure to drums and debris buri
Comments Date:	06281995
Comments:	ed in the channel bed. Field execution of the RA resulted in rem
Comments Date:	06281995
Comments:	oving approximately 70 5-gallon to 20-gallon decomposed drums fil
Comments Date:	06281995
Comments:	led with sodium hydroxide and 30 55 gallon drums filled with roof
Comments Date:	06281995
Comments:	ing tar, asphalt solids and waste, and oil grease solids. Approx
Comments Date:	06281995
Comments:	imately 200 cubic yards of contaminated overburden material exten
Comments Date:	06281995
Comments:	ding above and to the sides of the drums, in addition to the drum
Comments Date:	06281995
Comments:	s, were combined in 85 gallon overpack drums and transported off
Comments Date:	06281995
Comments:	site for treatment/stabilization in lined end-dumps at the Landla
Comments Date:	06281995
Comments:	w Environmental. Approximately 14 tons of debris containing non-
Comments Date:	06281995
Comments:	friable asbestos as less than 10% by total weight were placed in
Comments Date:	06281995
Comments:	a lined roll-off box and transported off-site to BDC Services, In
Comments Date:	06281995
Comments:	c. for disposal. In addition, approximately 6,800 cubic yards of
Comments Date:	06281995
Comments:	non hazardous materials (consisting of soil and debris) were tra
Comments Date:	06281995
Comments:	nsported to IRP Site 6a. As part of Site 40 restoration, the wat
Comments Date:	06281995

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MARCH AIR FORCE BASE - SITE 40 (Continued) **S102008377**

Comments:	er's elevation in the pond was raised by installing a concrete we
Comments Date:	06281995
Comments:	ir at the outlet of the pond. Each site location, including the
Comments Date:	06281995
Comments:	creek bed, was restored. Vegetation destroyed during constructio
Comments Date:	06281995
Comments:	n was replaced with California native plants. This RA, at Site 40
Comments Date:	06281995
Comments:	, is undertaken as part of the ongoing long term remedial actions
Comments Date:	06281995
Comments:	(RI/FS OU-2). 100 drums, 200 cubic yards of contaminated so
Comments Date:	06281995
Comments:	il, 14 tons of non-friable asbestos debris, and 6,800 cubic yards
Comments Date:	06281995
Comments:	of non-hazardous materials were removed.
Comments Date:	10041995
Comments:	Certification - Confirmation sampling has shown the soil to be s
Comments Date:	10041995
Comments:	uitable for unrestricted use. DTSC has determined that all appr
Comments Date:	10041995
Comments:	opriate response actions have been completed, that all acceptable
Comments Date:	10041995
Comments:	engineering practices were implemented and that no further remov
Comments Date:	10041995
Comments:	al/ remedial action is necessary.
Comments Date:	10131994
Comments:	RI/FS - This RI/FS was completed via an EECA for Site 40 which DT
Comments Date:	10131994
Comments:	SC approved on October 13, 1994. Site 40 is a former landfill use
Comments Date:	10131994
Comments:	d for disposing military wastes. It is approximately 18 acres an
Comments Date:	10131994
Comments:	d the central portion of the property consists of a pond which ac
Comments Date:	10131994
Comments:	cumulates surface run- off. There are drums buried at this landfi
Comments Date:	10131994
Comments:	ll that appear to contain a mixture of chemicals, clothing, and d
Comments Date:	10131994
Comments:	omestic refuse. The Air Force will: 1) excavate buried drums and
Comments Date:	10131994
Comments:	other solid waste from the creek bed to prepare subgrade for the
Comments Date:	10131994
Comments:	liner. Containerized waste will be segragated, sampled and char
Comments Date:	10131994
Comments:	acterized for disposal, 2) construct a new channel, 3) raise the
Comments Date:	10131994
Comments:	water level in the pond by constructing a weir, 4) trench at thre
Comments Date:	10131994
Comments:	e areas outside of the orignial excavation area which responded p
Comments Date:	10131994
Comments:	ositively during the magnotometer survey, 5) engineer the drainag
Comments Date:	10131994
Comments:	e inlet and outlet to limit contact between the water in the pond
Comments Date:	10131994
Comments:	and the remaining contaminants, if any. Approximate cost = not a
Comments Date:	10131994
Comments:	vailable; funding = BRAC

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

MAP FINDINGS

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

MARCH AIR FORCE BASE - SITE 40 (Continued) **S102008377**

ID Name: Not reported
ID Value: Not reported
Alternate Name: ALESSANDRO AVIATION FIELDMARCH AIR FORCE BASE - SITE 40
Special Programs Code: Not reported
Special Programs Name: Not reported

B9 **BUILDING 962** **CA CHMIRS** **S100179024**
NW **MARCH AFB** **CA Notify 65** **N/A**
1/2-1 **MORENO VALLEY, CA 90062**
0.520 mi.
2747 ft. **Site 6 of 6 in cluster B**

Relative:
Higher

Actual:
1483 ft.

CHMIRS:

OES Incident Number:	97-1205
OES notification:	03/24/1997
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1997
Agency:	AFB Conversion Agency
Incident Date:	3/23/199712:00:00 AM
Admin Agency:	Riverside County Environmental Health
Amount:	Not reported

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Map ID
Direction
Distance
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

BUILDING 962 (Continued) **S100179024**

Contained:	Yes
Site Type:	Military Base
E Date:	Not reported
Substance:	Trichloroethylene
Gallons:	btwn 500-1000
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Somehow the pump tripped at the lift station. Two check valves failed causing tank to overflow. The average concentration is 19.6 PPB

NOTIFY 65:

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Incident Description:	90062

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

Packet Pg. 4812

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

E.2.t

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/26/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 75

Source: EPA
Telephone: N/A
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/26/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 75

Source: EPA
Telephone: N/A
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/26/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 75

Source: EPA
Telephone: N/A
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 03/26/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

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Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 03/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 03/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 63

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 05/04/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 05/14/2015
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/05/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

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ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 05/04/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 05/14/2015
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/05/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/18/2015
Date Data Arrived at EDR: 05/20/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 16

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

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LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 6

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

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LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 6

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

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SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

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SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/03/2015
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 29

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 48

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/28/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 24

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 03/17/2015
Date Data Arrived at EDR: 05/01/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 52

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/30/2014
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Semi-Annually

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INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/03/2015
Date Data Arrived at EDR: 04/30/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 53

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/03/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/08/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/15/2015
Date Data Arrived at EDR: 06/17/2015
Date Made Active in Reports: 07/06/2015
Number of Days to Update: 19

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/03/2015
Date Data Arrived at EDR: 04/30/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 53

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/28/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/30/2014
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Semi-Annually

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INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 27

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 03/17/2015
Date Data Arrived at EDR: 05/01/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 52

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 48

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 12/14/2014
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 28

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/06/2015
Date Data Arrived at EDR: 05/19/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 34

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Quarterly

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FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/13/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014
Date Data Arrived at EDR: 10/01/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 36

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 05/04/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 05/14/2015
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/05/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/23/2015
Date Data Arrived at EDR: 03/24/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 70

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/24/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/23/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/26/2015
Number of Days to Update: 8

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/28/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 8

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 05/01/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: No Update Planned

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Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/25/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 15

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 05/04/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 05/14/2015
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/05/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 8

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/13/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Varies

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US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/25/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 15

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

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Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/11/2015
Date Data Arrived at EDR: 03/13/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 11

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/09/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 8

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 06/09/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 04/14/2015
Date Data Arrived at EDR: 04/29/2015
Date Made Active in Reports: 05/21/2015
Number of Days to Update: 22

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 6

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

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MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 6

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/05/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/14/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

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Date of Government Version: 06/06/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 8

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 12/30/2014
Date Data Arrived at EDR: 12/31/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 29

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/03/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 110

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 01/29/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

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Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/25/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

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Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/10/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/06/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 04/09/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/17/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/31/2015
Date Data Arrived at EDR: 04/09/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 63

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 06/04/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/07/2015
Date Data Arrived at EDR: 04/09/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/09/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 01/18/2015
Date Data Arrived at EDR: 02/27/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 26

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Quarterly

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RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 11/19/2014
Date Data Arrived at EDR: 12/15/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 45

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/19/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Varies

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NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 05/18/2015
Date Data Arrived at EDR: 05/20/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 04/10/2015
Number of Days to Update: 10

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 02/18/2015
Date Data Arrived at EDR: 02/20/2015
Date Made Active in Reports: 03/12/2015
Number of Days to Update: 20

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Annually

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

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ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/01/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 12

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/19/2014
Number of Days to Update: 35

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/17/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 03/25/2014
Date Made Active in Reports: 04/28/2014
Number of Days to Update: 34

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/25/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/14/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

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PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 05/14/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EPA WATCH LIST: EPA WATCH LIST
EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/07/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List
The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/14/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 04/10/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Varies

PROC: Certified Processors Database
A listing of certified processors.

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Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 6

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/01/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/01/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 12

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/18/2015
Date Data Arrived at EDR: 05/22/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 14

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/14/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: N/A

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information
All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

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Date of Government Version: 03/09/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 05/14/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 01/16/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 06/09/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 04/15/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Varies

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/22/2015
Data Release Frequency: Annually

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/13/2015
Date Data Arrived at EDR: 04/15/2015
Date Made Active in Reports: 04/23/2015
Number of Days to Update: 8

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/15/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Quarterly

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HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/28/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 8

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/28/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

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EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/21/2015
Date Data Arrived at EDR: 01/28/2015
Date Made Active in Reports: 02/26/2015
Number of Days to Update: 29

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/21/2015
Date Data Arrived at EDR: 01/28/2015
Date Made Active in Reports: 02/26/2015
Number of Days to Update: 29

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 03/09/2015
Date Data Arrived at EDR: 03/24/2015
Date Made Active in Reports: 03/31/2015
Number of Days to Update: 7

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

BUTTE COUNTY:

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CUPA Facility Listing
Cupa facility list.

Date of Government Version: 11/20/2014
Date Data Arrived at EDR: 11/24/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 44

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 04/14/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 04/17/2015
Date Data Arrived at EDR: 04/21/2015
Date Made Active in Reports: 05/07/2015
Number of Days to Update: 16

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/11/2014
Date Data Arrived at EDR: 06/13/2014
Date Made Active in Reports: 07/07/2014
Number of Days to Update: 24

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 05/04/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 05/19/2015
Date Data Arrived at EDR: 05/22/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 14

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

EL DORADO COUNTY:

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CUPA Facility List
CUPA facility list.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 7

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 05/04/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 03/31/2015
Date Data Arrived at EDR: 04/15/2015
Date Made Active in Reports: 04/23/2015
Number of Days to Update: 8

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 07/06/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 03/11/2015
Date Data Arrived at EDR: 03/13/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 11

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 04/27/2015
Date Data Arrived at EDR: 04/28/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 15

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

KERN COUNTY:

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 07/22/2014
Date Data Arrived at EDR: 11/12/2014
Date Made Active in Reports: 12/19/2014
Number of Days to Update: 37

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/28/2015
Date Made Active in Reports: 06/15/2015
Number of Days to Update: 18

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 05/05/2015
Date Data Arrived at EDR: 05/07/2015
Date Made Active in Reports: 05/20/2015
Number of Days to Update: 13

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/16/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/24/2014
Date Data Arrived at EDR: 01/30/2015
Date Made Active in Reports: 03/04/2015
Number of Days to Update: 33

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/13/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

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Date of Government Version: 04/20/2015
Date Data Arrived at EDR: 04/20/2015
Date Made Active in Reports: 05/07/2015
Number of Days to Update: 17

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/20/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/15/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/15/2015
Date Data Arrived at EDR: 01/29/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 40

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/16/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 03/06/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/03/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 16

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/03/2015
Date Data Arrived at EDR: 06/04/2015
Date Made Active in Reports: 07/06/2015
Number of Days to Update: 32

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/13/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

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Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/15/2015
Number of Days to Update: 17

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 10/08/2014
Date Data Arrived at EDR: 10/22/2014
Date Made Active in Reports: 12/15/2014
Number of Days to Update: 54

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 07/06/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 05/22/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 10

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 06/01/2015
Date Data Arrived at EDR: 06/03/2015
Date Made Active in Reports: 07/06/2015
Number of Days to Update: 33

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 03/19/2015
Date Data Arrived at EDR: 03/20/2015
Date Made Active in Reports: 03/31/2015
Number of Days to Update: 11

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

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Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 02/12/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 18

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 05/04/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 24

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/08/2015
Number of Days to Update: 27

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 30

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/12/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

PLACER COUNTY:

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/12/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 6

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/28/2015
Date Data Arrived at EDR: 04/30/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 04/28/2015
Date Data Arrived at EDR: 04/30/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/02/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 04/16/2015
Number of Days to Update: 8

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/02/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 04/16/2015
Number of Days to Update: 8

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

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Date of Government Version: 03/02/2015
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 7

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/12/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2014
Date Data Arrived at EDR: 11/21/2014
Date Made Active in Reports: 12/29/2014
Number of Days to Update: 38

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 06/03/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

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San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 07/06/2015
Number of Days to Update: 10

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/22/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/10/2015
Number of Days to Update: 15

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 04/13/2015
Date Data Arrived at EDR: 04/15/2015
Date Made Active in Reports: 04/23/2015
Number of Days to Update: 8

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/15/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 03/17/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 7

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 06/29/2015
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/23/2015
Date Data Arrived at EDR: 02/25/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 6

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 05/07/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/08/2015
Number of Days to Update: 27

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/07/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 05/22/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/08/2015
Number of Days to Update: 13

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 03/11/2015
Date Data Arrived at EDR: 03/13/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 11

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SOLANO COUNTY:

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/19/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 5

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/20/2015
Date Made Active in Reports: 03/31/2015
Number of Days to Update: 11

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 03/31/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/10/2015
Number of Days to Update: 8

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/01/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 06/05/2015
Date Data Arrived at EDR: 06/09/2015
Date Made Active in Reports: 07/06/2015
Number of Days to Update: 27

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 05/05/2015
Date Data Arrived at EDR: 05/07/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 6

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

VENTURA COUNTY:

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 04/27/2015
Date Data Arrived at EDR: 05/22/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 14

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 04/27/2015
Date Data Arrived at EDR: 04/29/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 14

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 05/27/2015
Date Data Arrived at EDR: 06/17/2015
Date Made Active in Reports: 07/06/2015
Number of Days to Update: 19

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 03/26/2015
Date Data Arrived at EDR: 04/01/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 12

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 07/06/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Annually

YUBA COUNTY:

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 05/18/2015
Date Data Arrived at EDR: 05/19/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 17

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 04/29/2015
Date Made Active in Reports: 05/29/2015
Number of Days to Update: 30

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/14/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/06/2015
Date Made Active in Reports: 05/20/2015
Number of Days to Update: 14

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/21/2014
Date Made Active in Reports: 08/25/2014
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/16/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/15/2014
Date Made Active in Reports: 08/13/2014
Number of Days to Update: 29

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Annually

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/19/2015
Date Made Active in Reports: 04/07/2015
Number of Days to Update: 19

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/11/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Telephone: 281-546-1505
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: 800-823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

17845 INDIAN STREET
17845 INDIAN STREET
MORENO VALLEY, CA 92551

TARGET PROPERTY COORDINATES

Latitude (North):	33.8618 - 33° 51' 42.48''
Longitude (West):	117.237 - 117° 14' 13.20''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	478077.7
UTM Y (Meters):	3746664.0
Elevation:	1472 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	33117-G2 PERRIS, CA
Most Recent Revision:	1979
North Map:	33117-H2 SUNNYMEAD, CA
Most Recent Revision:	1980
West Map:	33117-G3 STEELE PEAK, CA
Most Recent Revision:	1978

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

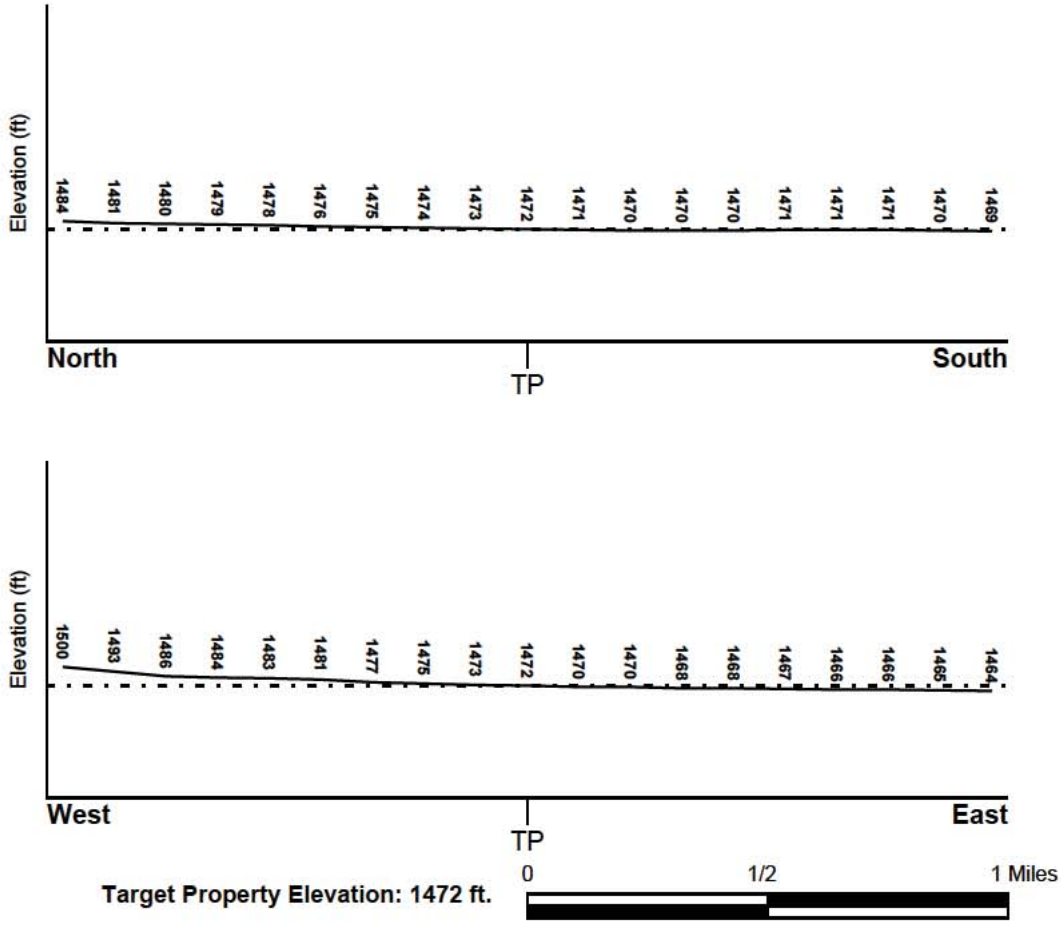
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General ESE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
RIVERSIDE, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06065C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NOT AVAILABLE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Mesozoic
System:	Cretaceous
Series:	Cretaceous granitic rocks
Code:	Kg *(decoded above as Era, System & Series)*

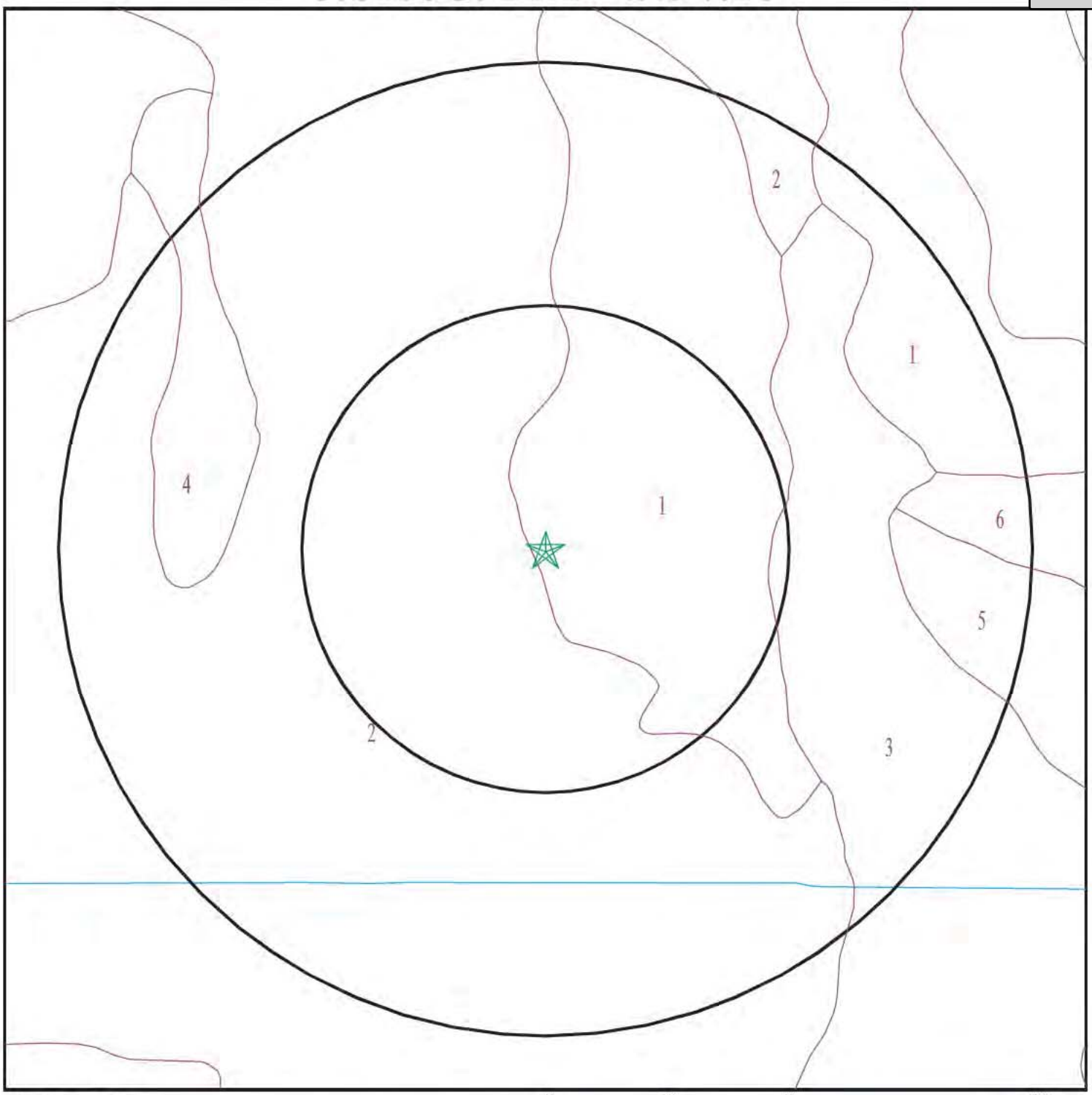
GEOLOGIC AGE IDENTIFICATION

Category: Plutonic and Intrusive Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

SSURGO SOIL MAP - 4346403.2s



★ Target Property
SSURGO Soil
Water

SITE NAME:	17845 Indian Street	CLIENT:	Ardent Environmental Group
ADDRESS:	17845 Indian Street Moreno Valley CA 92551	CONTACT:	Dennis Kawasaki
LAT/LONG:	33.8618 / 117.237	INQUIRY #:	4346403.2s
		DATE:	July 07, 2015 1:34 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: EXETER

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 6.6
2	16 inches	37 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 7.8 Min: 6.6
3	37 inches	50 inches	indurated	Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:
4	50 inches	59 inches	stratified sandy loam to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 5.6
2	14 inches	22 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.3 Min: 6.1
3	22 inches	68 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 3

Soil Component Name: GREENFIELD

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	25 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1
2	25 inches	42 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1
3	42 inches	59 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 6.1
4	59 inches	72 inches	stratified loamy sand to sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Soil Map ID: 4

Soil Component Name: HANFORD

Soil Surface Texture: coarse sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	coarse sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 5.6
2	7 inches	40 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 5.6
3	40 inches	59 inches	stratified loamy sand to coarse sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 5.6

Soil Map ID: 5

Soil Component Name: EXETER

Soil Surface Texture: very fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.3 Min: 6.6
2	16 inches	37 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 6.6
3	37 inches	50 inches	indurated	Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:
4	50 inches	59 inches	stratified sandy loam to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

Soil Map ID: 6

Soil Component Name: EXETER

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 6.6
2	16 inches	37 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 6.6
3	37 inches	50 inches	indurated	Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:
4	50 inches	59 inches	stratified sandy loam to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000138615	1/4 - 1/2 Mile SSE
2	USGS40000138620	1/2 - 1 Mile WSW
3	USGS40000138695	1/2 - 1 Mile NNE
4	USGS40000138621	1/2 - 1 Mile ESE
A8	USGS40000138614	1/2 - 1 Mile WSW
B9	USGS40000138607	1/2 - 1 Mile ESE
B10	USGS40000138608	1/2 - 1 Mile ESE
11	USGS40000138576	1/2 - 1 Mile SSE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

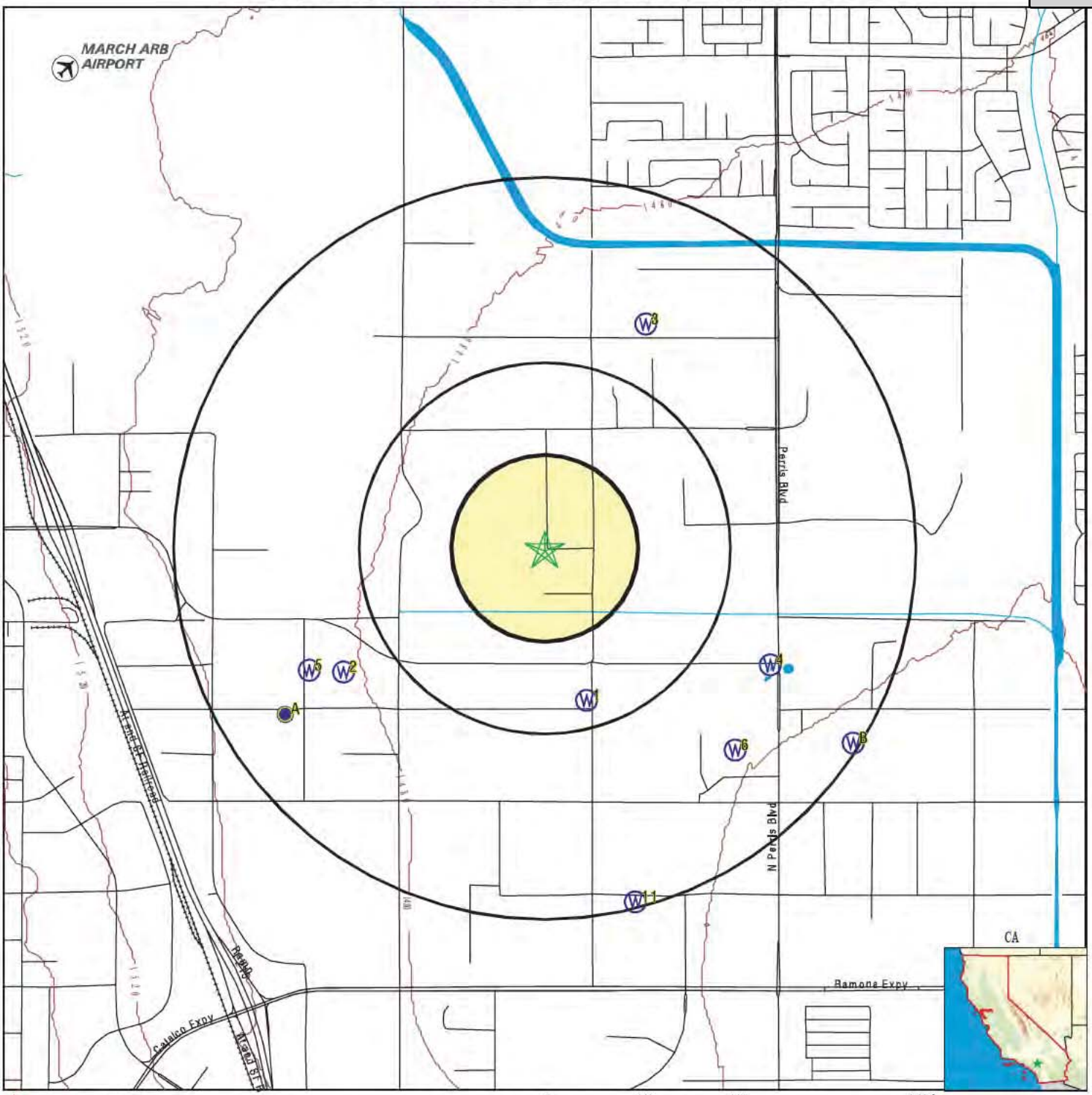
Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
5	CADW50000003591	1/2 - 1 Mile WSW
6	4814	1/2 - 1 Mile SE
A7	CADW50000003579	1/2 - 1 Mile WSW

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

PHYSICAL SETTING SOURCE MAP - 4346403.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: 17845 Indian Street	CLIENT: Ardent Environmental Group
ADDRESS: 17845 Indian Street Moreno Valley CA 92551	CONTACT: Dennis Kawasaki
LAT/LONG: 33.8618 / 117.237	INQUIRY #: 4346403.2s DATE: July 07, 2015 1:34 pm

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Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
1		
SSE	**FED USGS**	**USGS40000138615**
1/4 - 1/2 Mile		
Lower		

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-335121117140301		
Monloc name:	004S003W06C001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8558516
Longitude:	-117.235038	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1465
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

	Database	EDR ID Number
2		
WSW	**FED USGS**	**USGS40000138620**
1/2 - 1 Mile		
Higher		

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-335125117144401		
Monloc name:	004S004W01A001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8569627
Longitude:	-117.2464275	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1483
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

3
NNE **FED USGS** **USGS40000138695**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-335214117135301		
Monloc name:	003S003W31B001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8705736
Longitude:	-117.2322603	Sourcemap scale:	24000
Horiz Acc measure:	Unknown	Horiz Acc measure units:	Unknown
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1475
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	350
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

4
ESE **FED USGS** **USGS40000138621**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-335126117133201		
Monloc name:	004S003W06A003S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8572405
Longitude:	-117.2264265	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

5
WSW
1/2 - 1 Mile
Higher

CA WELLS **CADW50000003591**

Latitude :	33.857031		
Longitude :	117.248036		
Site code:	338570N1172480W001	Casgem sta:	Not Reported
Local well:	EMWD12471	Casgem s 1:	Irrigation
County id:	33		
Basin cd:	8-5	Basin desc:	San Jacinto
Org unit n:	Southern Region Office	Site id:	CADW50000003591

6
SE
1/2 - 1 Mile
Lower

CA WELLS **4814**

Water System Information:

Prime Station Code:	04S/03W-06H02 S	User ID:	WAT
FRDS Number:	3310700002	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT
Water Type:	Well/Groundwater	Well Status:	Abandoned
Source Lat/Long:	335114.0 1171338.0	Precision:	100 Feet (one Second)
Source Name:	WELL 06 - ABANDONED		
System Number:	3310700		
System Name:	MARCH AFB		
Organization That Operates System:	722 CES/CC 840 MACDILL,BLD2506 MARCH AFB, CA 92518		
Pop Served:	8186	Connections:	2348
Area Served:	MARCH AFB		

A7
WSW
1/2 - 1 Mile
Higher

CA WELLS **CADW50000003579**

Latitude :	33.855329		
Longitude :	117.249116		
Site code:	338553N1172491W001	Casgem sta:	Not Reported
Local well:	EMWD12474	Casgem s 1:	Irrigation
County id:	33		
Basin cd:	8-5	Basin desc:	San Jacinto
Org unit n:	Southern Region Office	Site id:	CADW50000003579

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A8
WSW
1/2 - 1 Mile
Higher | **FED USGS** | **USGS40000138614**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-335119117145401		
Monloc name:	004S004W01G001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8552961
Longitude:	-117.2492054	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1488
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

B9
ESE
1/2 - 1 Mile
Lower | **FED USGS** | **USGS40000138607**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-335115117131801		
Monloc name:	004S003W06H001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.854185
Longitude:	-117.2225373	Sourcemap scale:	Not Reported
Horiz Acc measure:	Unknown	Horiz Acc measure units:	Unknown
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

B10
ESE
1/2 - 1 Mile
Lower

FED USGS **USGS40000138608**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-335115117131802		
Monloc name:	004S003W06H002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.854185
Longitude:	-117.2225373	Sourcemap scale:	Not Reported
Horiz Acc measure:	Unknown	Horiz Acc measure units:	Unknown
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

11
SSE
1/2 - 1 Mile
Lower

FED USGS **USGS40000138576**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-335053117135801		
Monloc name:	004S003W06Q004S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8479722
Longitude:	-117.23275	Sourcemap scale:	24000
Horiz Acc measure:	.5	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	1460
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Cenozoic Erathem		

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type:	Unconfined single aquifer		
Construction date:	19940115	Welldepth:	760
Welldepth units:	ft	Wellholedepth:	905
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
2001-03-12	109.8	

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92551	4	0

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for RIVERSIDE COUNTY, CA

Number of sites tested: 12

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.117 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.450 pCi/L	100%	0%	0%
Basement	1.700 pCi/L	100%	0%	0%

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

ARDENT
ENVIRONMENTAL GROUP, INC.

July 13, 2016
Project No. 100671002

Mr. Patrick Russell
SRG Acquisition, LLC
18802 Bardeen Avenue
Irvine, California 92612

Subject: Results of Pesticide and Herbicide Sampling
17845 Indiana Street
Moreno Valley, California

Dear Mr. Russell:

This report presents the results of the pesticide and herbicide sampling completed at the property located at 17845 Indiana Street in the city of Moreno Valley, California (site; Figure 1). Work was completed in general accordance with the proposal dated June 23, 2016. The site comprises approximately 19.42-acres of land formerly used for agricultural purposes. SRG Acquisition, LLC (SRG) recently purchased the site and is considering redevelopment for commercial use.

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As part of its real estate due diligence, SRG retained Ardent Environmental Group, Inc. (Ardent) to complete a Phase I Environmental Site Assessment (ESA) for the site in 2015. The site was formerly used for agricultural purposes since the 1930s and a former sod farm in 2004. A previous Phase I ESA indicated that pesticides and herbicides were used at the site during the time period the sod farm was in operations. As a result, Ardent concluded that residual concentrations of herbicides and pesticides might exist in shallow soils, however, due to the proposed redevelopment plans as commercial property, future grading activities would likely homogenize and dilute any residual agricultural chemicals. Based on this information, residual agricultural chemicals would not be considered an environmental concern to the site.

During completion of an Environmental Impact Report (EIR), comments from the City of Moreno Valley (the “City”) were obtained regarding the Phase I ESA and requested that pesticide and herbicide sampling be completed. In addition, the City noted that a water retention pond was observed immediately northwest of the site in a 1953 aerial photograph. According to the City, the water retention pond may have been “…used in the past as [a] mixing area for agricultural

chemicals." Based on this assumption, the City requested soil sampling be completed on-site and immediately adjacent to the water retention pond.

Since the 1930s, organochlorine pesticides (OCP), such as DDT, dieldrin, and heptachlor were commonly used. Some of these insecticides, such as DDT, are persistent organic pollutants which pose a danger when they are released into the environment. DDT, which was widely used in the mid-20th century, also accumulated in food chains and caused reproductive problems (e.g. eggshell thinning) in certain bird species. In 1970, the United States banned organochlorine pesticides, and in response, farmers began using organophosphorus pesticides (OPP). Chlorinated herbicides have been used since the 1940s. Based on this information, both organochloride and organophosphorus pesticides and chlorinated herbicides may have been used at the site. Groundwater in the vicinity of the site has been reported at depths of 75 feet below ground surface (bgs). The sampling completed as presented herein was to satisfy the City requirements.

OBJECTIVE

The objective of the work presented herein was to assess whether elevated concentrations of pesticides (both organochlorine and organophosphorus) and chlorinated herbicides were preset in shallow soils at the site due to historical agricultural land use.

PESTICIDE AND HERBICIDE SAMPLING AND RESULTS

Prior to sampling at the site, Ardent divided the site into eight separate approximately equal sized sampling grids and one soil boring was placed in the approximate center of each grid (Figure 2). Two additional soil borings were placed adjacent to the water retention pond. Soil sampling was completed on June 26, 2016. Laboratory results of the sampling activities are presented on Table 2, and laboratory reports are presented in Attachment A.. Soil samples were collected from each soil boring at depths of approximately 1- and 3-feet within native materials using hand auger equipment. The samples collected at 1-foot within native soil were chemically analyzed, while the 3-foot samples were archived by the laboratory. Soil lithology of the native soils generally consisted of fine sandy silt. The samples were analyzed for OCPs, OPP, and herbicides in general accordance with EPA Method Nos. 8081A, 8141A, and 8151A respectively. Laboratory results were compared to both the State of California Department of Toxic Substances Control (DTSC) Screening Levels for industrial/commercial land use (DTSC-

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Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

SLi) and the Federal EPA Regional Screening Levels for industrial/commercial land use (RSLi). Both of these regulatory guidelines are based on a human health risk criteria for dermal exposure. Laboratory results indicated no detectable concentrations of OCPs, OPPs, and chlorinated herbicides, with the exception of 4,4-DDE, a breakdown product of 4,4-DDT. The analytical results indicated concentrations of up to 0.0086 milligrams per kilogram (mg/kg) of 4,4-DDE in seven samples. As noted on Table 1, these concentrations are well below the RSLi guidelines of 9.3 mg/kg; the DTSC does not maintain guidelines for 4,4-DDE. Based on the depth to groundwater and low concentrations in shallow soils, there is a low likelihood that these detectable concentrations would pose a significant threat to groundwater.

CONCLUSIONS AND RECOMMENDATIONS

To satisfy comments raised during the review of an EIR, pesticide sampling was completed throughout the site. Laboratory results indicated no detectable to low concentrations of OCPs, OPPs, and chlorinated herbicides. Based on this information, there is a low likelihood that the residual pesticides would pose a significant human health risk to future workers or occupants of the site, or a threat to groundwater below the site. Ardent does not recommend further investigation or remediation at this time.

If you have any questions or comments regarding this report, please call the undersigned at your convenience.

Sincerely,
Ardent Environmental Group, Inc.

DRAFT

Jonathan Anderson
Staff Geologist

Paul Roberts, P.G.
Principle Geologist

PAR/JPA/nw

Appendices: Table 1 – Summary of Soil Sample Laboratory Results
Figure 1 – Site Location Map
Figure 2 – Area of Investigation
Attachment A – Laboratory Reports

Distribution: (1) Addressee – via email
(1) Ms. Janine Padia, SARES-REGIS Group – via email

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

References

Ardent Environmental Group, Inc. (Ardent), 2015, Phase I Environmental Site Assessment, Approximate 17845 Indian Street, Moreno Valley, California: Report prepared for SARES-REGIS Group, Irvine, California, dated July 15.

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Table 1 - Summary of Soil Sample Laboratory Results

Sample ID	Date Sampled	Depth (feet bgs)	Organochlorine Pesticides (mg/kg)		Organophosphorus Pesticides (mg/kg)	Chlorinated Herbicides (mg/kg)
			4,4-DDE	All Others		
B1-1	6/28/16	1	ND<0.0020	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B2-1	6/28/16	1	0.0038	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B3-1	6/28/16	1	0.0027	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B4-1	6/28/16	1	0.0086	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B5-1	6/28/16	1	0.0031	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B6-1	6/28/16	1	ND<0.0020	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B7-1	6/28/16	1	0.0047	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B8-1	6/28/16	1	0.0037	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B9-1	6/28/16	1	ND<0.0020	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B10-1	6/28/16	1	0.0025	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
DTSC-SLi			NA	Various	Various	Various
EPA RSLi			9.3	Various	Various	Various

Notes:

Sample ID - sample identification

feet bgs - feet below the ground surface

Organochlorine Pesticides analyzed in general accordance with EPA Method No. 8081A

Organophosphorus Pesticides analyzed in general accordance with EPA Method No.8141A

Chlorinated Herbicides analyzed in general accordance with EPA Method No.8151A

4,4-DDE - 4,4-dichlorodiphenyldichloroethylene

mg/kg - milligrams per kilogram

ND - no detectable concentration above the reporting limit

DTSC-SLi - Department of Toxic Substance Control (DTSC), Human Ecological Risk Office (HERO), Human Health Risk Assessment (HHRA) Note 3, Screening Levels for industrial/ commercial land use, dated January 2016.

NA - not applicable

EPA RSLi - EPA, Region 9, Regional Screening Levels for industrial/commercial land use, dated November 2015.

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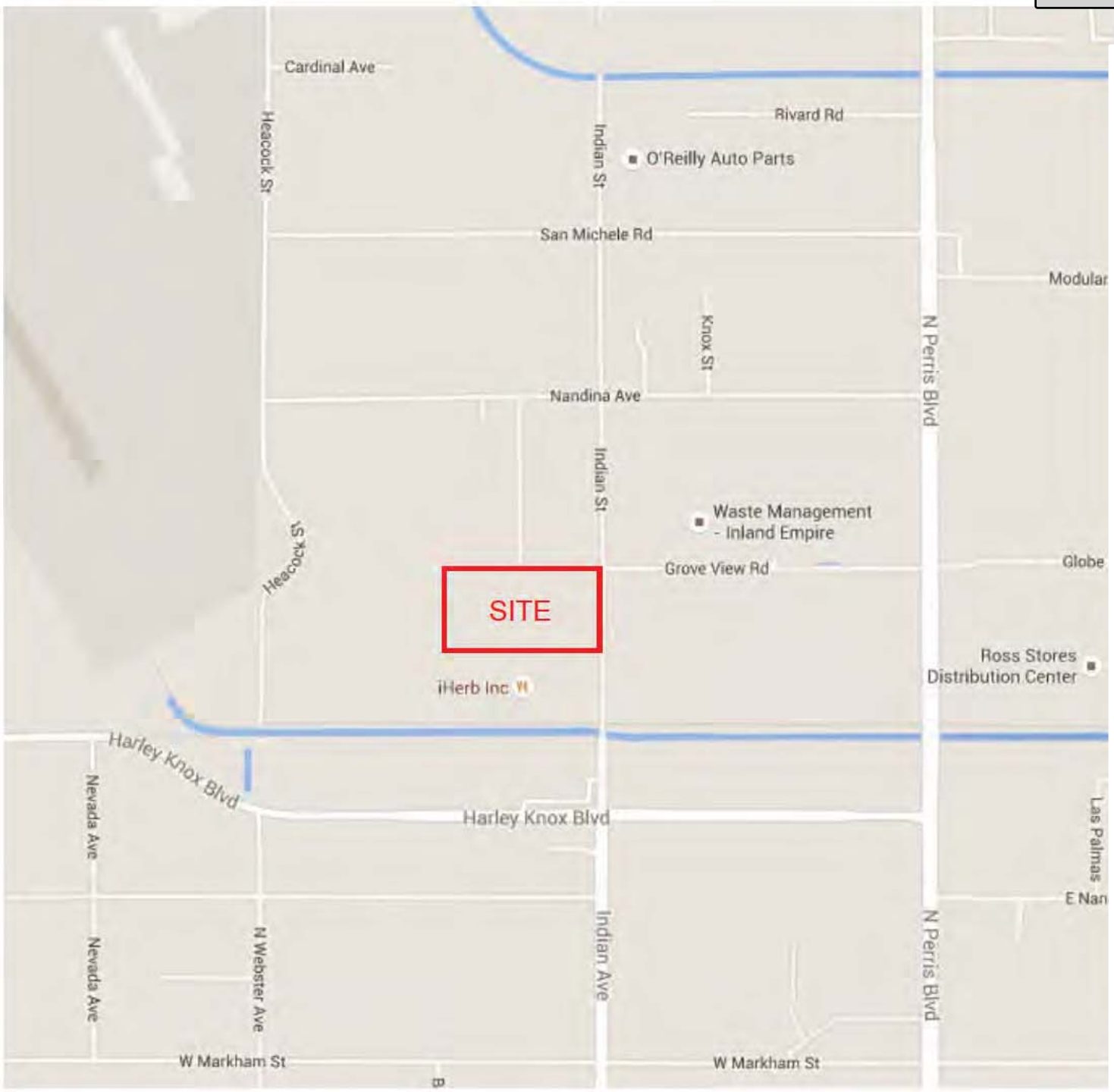

NO SCALE

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

ARDENT ENVIRONMENTAL GROUP, INC.	PROJECT NO. 100671002	**SITE LOCATION MAP**	FIGURE 1
	DATE 07/15	17845 INDIAN STREET MORENO VALLEY, CALIFORNIA	

Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



LEGEND

B10 SOIL BORING LOCATION AND DESIGNATION

APPROXIMATE PROPERTY LINE

N

APPROXIMATE SCALE

0 120 240

NOTES:

1) Base Map Source: A.L.T.A/A.C.S.M. Land Title Survey, Prepared by Huitt-Zollars, Inc. of Ontario, California, Dated July 13, 2015.

2) All dimensions, directions and locations are approximate.

ARDENT ENVIRONMENTAL GROUP, INC.	PROJECT NO. 100671002	AREA OF INVESTIGATION	FIGURE 2
	DATE 07/16	17845 INDIAN STREET MORENO VALLEY, CALIFORNIA	

ATTACHMENT A

LABORATORY REPORTS

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Attachment: Appendix F - Phase I ESA to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

FINAL DRAINAGE REPORT

For

Moreno Valley Vogel Industrial

PA16-0002
APN: 316-210-19, 20, 57 and 77

PROJECT LOCATION

Southwest corner of Indian Street and
Grove View Road
City of Moreno Valley, CA

DEVELOPER

Sares Regis Group
18802 Bardeen Avenue
Irvine, CA 92612

PREPARED BY

Huitt-Zollars, Inc.
3990 Concours Suite 330
Ontario, CA 91764
Ph: 909.941.7799
Fax: 909.941.7789

David White, P.E.
C52921, Exp 12/31/2016

PREPARATION DATE

August 15, 2016

HZ PROJECT NUMBER

R304806.01

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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Purpose	1
Existing Condition	1
Discussion	1
Hydrologic Analysis	2
Results	2

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

List of Appendices

Appendix A	Proposed Condition Hydrology Map
Appendix B	100-year Rational Method Hydrologic Analysis - Existing Condition - Proposed Condition - Indian Street
Appendix C	Hydraulic Analysus - WSPGW
Appendix D	Soil Group Map and Isohyetal Map
Appendix E	Reference Plans: Partial Perris Valley Master Drainage Plan DWG. 4-948

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Introduction
This preliminary hydrology report has been prepared for Sares Regis Group. The project is a new development of an industrial warehouse facility located at the southwest corner of Indian Street and Grove View Road, in the City of Moreno Valley. The proposed building is approximately 446,350 square feet in size on approximately 19.6 acres of an undeveloped land.

Purpose
The purpose of this report is to present the drainage concept for the project and to determine the design flow rates and estimate storm drain sizes that will be needed for the project site. The hydrology map and calculations reflect the tributary areas and Q_{100} flows.

Existing Condition
The existing site grades range from a maximum elevation of 1471 feet in the northwest region of the site to a minimum elevation of 1465 feet in the southeast region of the site with less than one percent (1%) gradient. The runoff from the existing site flows from northwest to the southeast in a sheet flow condition and collects into a headwall inlet structure at the southeast corner of the site and then is conveyed to the public storm drain system in Indian Street which is a 6 foot high and 10 foot wide reinforced concrete box that has been designed to accept and convey the tributary 100-year peak storm event runoff.

Proposed Condition
For the proposed condition the site has been designed to generally drain in the same direction as the existing undeveloped condition. In compliance with the city, county and state guidelines the site has been designed to incorporate on site bio-retention basins to help mitigate the storm water generated by the developed site. The site will generally be graded to drain toward the easterly and south easterly end of the project site. The storm water will then be allowed to discharge into the open bio-retention basins and disperse into the filter media within the bottom of each basin. The basins have been sized to capture and treat the required volume of storm water based on the most current water quality management plan guidance material. By implementing these on-site bio-retention basins we have attempted to slow down and reduce the storm water volume and rate of runoff during the smaller storm events to help mimic the existing undeveloped conditions. Based on our preliminary calculations presented in our Water Quality Management Plan the required capture volume is 30,991 cubic feet of storm water and the basins are designed to capture 32,272 cubic feet of storm water. Once the on-site bio-retention basins reach capacity they will overflow into a catch basin at the southeast corner of the site and runoff is then conveyed into the underground storm drain system. The underground storm drain system is designed to capture and convey the tributary 100-year storm event peak runoff. The underground storm drain then connects to the existing public 42” RCP storm drain and joins to a 6 foot high, 10 foot wide reinforced concrete box that has been designed to accept and convey the 100-year peak storm event runoff from the adjacent tributary areas.

The proposed bio-retention basins have been designed to collect and filter the required storm water volume by sending the collected storm water through a filter media placed within the basin bottom. The design allows for the collected storm water to permeate through the media bottom and discharge to the storm drain system via 6” perforated pipes. The basins shall be maintained regularly to ensure that there is no standing water. To ensure compatibility with the March Air Reserve Base and Inland Airport operations, the proposed landscaping and vegetation in and around the retention basins and the project site will be selected in full compliance with the MARB and Inland Airport operation guidelines.

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

The off-site on the south side of the project site is developed as an industrial warehouse. The off-site on the west side of the project is current vacant, and the runoff sheet flows from northwest to southeast to an existing basin along the west side of the project site; moreover, overflow from the basin flows southerly and discharges to Perris Valley Channel. The off-site on the north side of the project site is vacant, and the majority runoff drains from west to east and is collected by an existing outlet in the Indian Street per as-built drawing "Perris Valley Master Drainage Plan DWG. 4-948, sheet 4". See Appendix E for reference plans.

Hydrologic Analysis

The hydrologic analysis was completed using the methodology outlined in the Riverside County Flood Control & Water Conservation District (RCFC&WCD) Hydrology Manual. Rational method hydrologic analyses were completed for the 100-year storm event using the AES software (Riverside County Module) Version 18.0. Hydraulic calculations were use the WSPGW program version 14.06 which is performed in Appendix C.

The site is situated within hydrologic soil types "C" as identified in the Hydrology Manual. A "Commercial" land use type has been assigned for the proposed site condition using AMC 3. The 100-year, 1-hour precipitation was taken from Plate D-4.4 and the Slope of Intensity Duration was taken from Plate D-4.6 of the Hydrology Manual.

Results

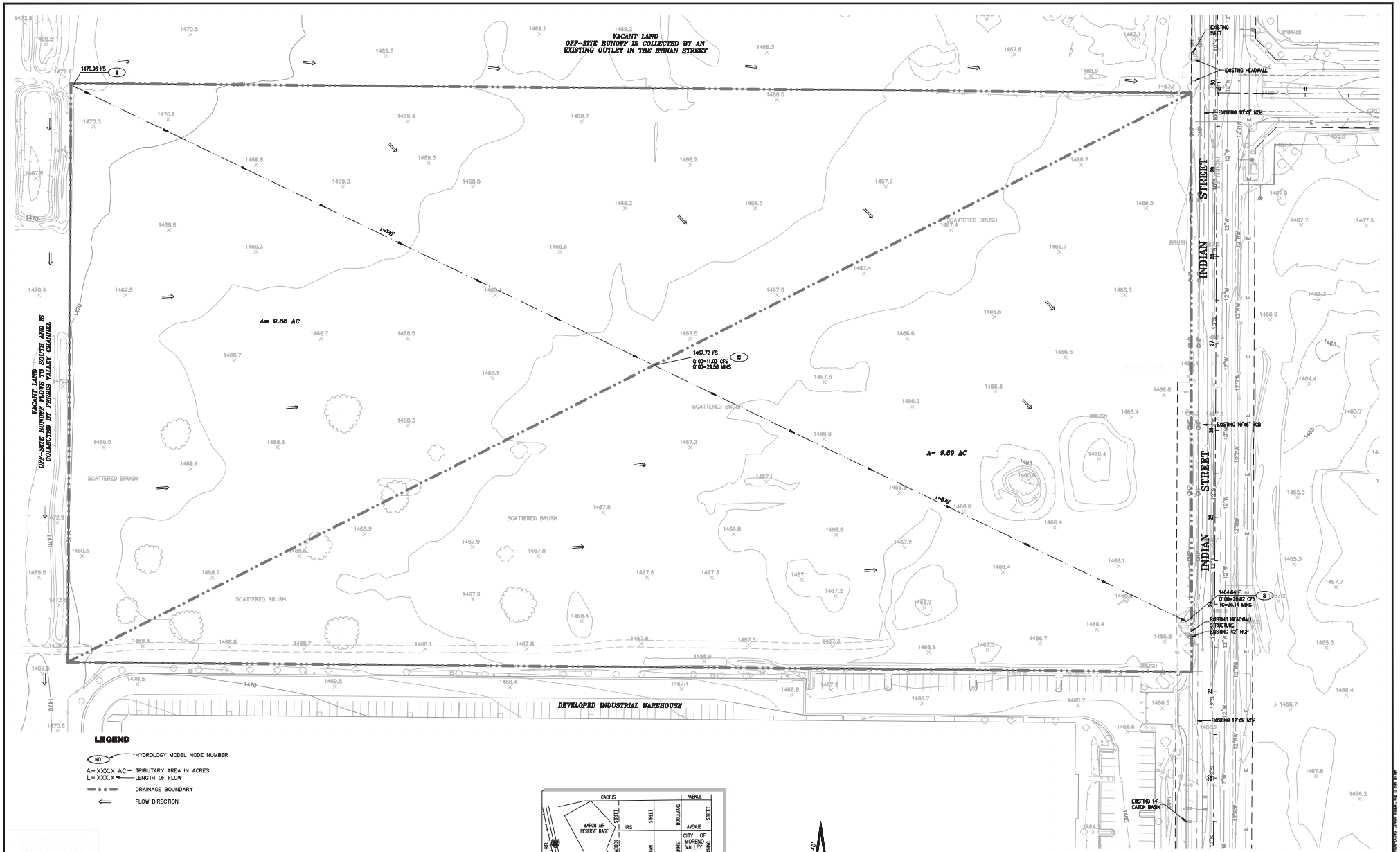
Hydrologic analysis by AES calculation show that the total flow from the project site is Q_{100}=35.85 cfs at node 11. The existing public 42" RCP where the on-site storm drain is going to connect to was designed to collect 40.9 cfs from the as-built plan per Perris Valley Master Drainage Plan DWG. 4-948. See Appendix E for the as-built plan.

The results of the street capacity analysis show the depth of the water in the gutter to be 0.38' deep for the 100 year storm event. There is an existing inlet on Indian Street which captures all of the street runoff north of the subject property. See Appendix B for AES calculation.

All proposed drainage and storm drain facilities are sized adequately for Q100 to protect the building from flooding. The hydraulic calculations is attached in the Appendix C.

Appendix A
Final Hydrology Map

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



BENCH MARK	BASIS OF BEARING
E COUNTY FLOOD CONTROL BENCHMARK N 1474.674 (NGVD29) UMINUM DISK STAMPED "NV. CO. BENCHMARK F APRIL 1996", FLUSH AT S.W. CORNER OF BRIDGE SIDEWALK NEAR FACE OF CURB LOCATED AT THE OF PERRIS BLVD. AND R.C.F.C. CHANNEL (PERRIS 1) 43 FT WEST OF THE CENTERLINE OF PERRIS 4.5 FT EAST OF CONCRETE BRIDGE BARRIER	BEARINGS SHOWN HEREON ARE BASED ON THE BEARING BETWEEN CORS STATION PRIP AND CORS STATION NLPP BEING NORTH 5°20'18" WEST PER RECORDS ON FILE WITH THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC).

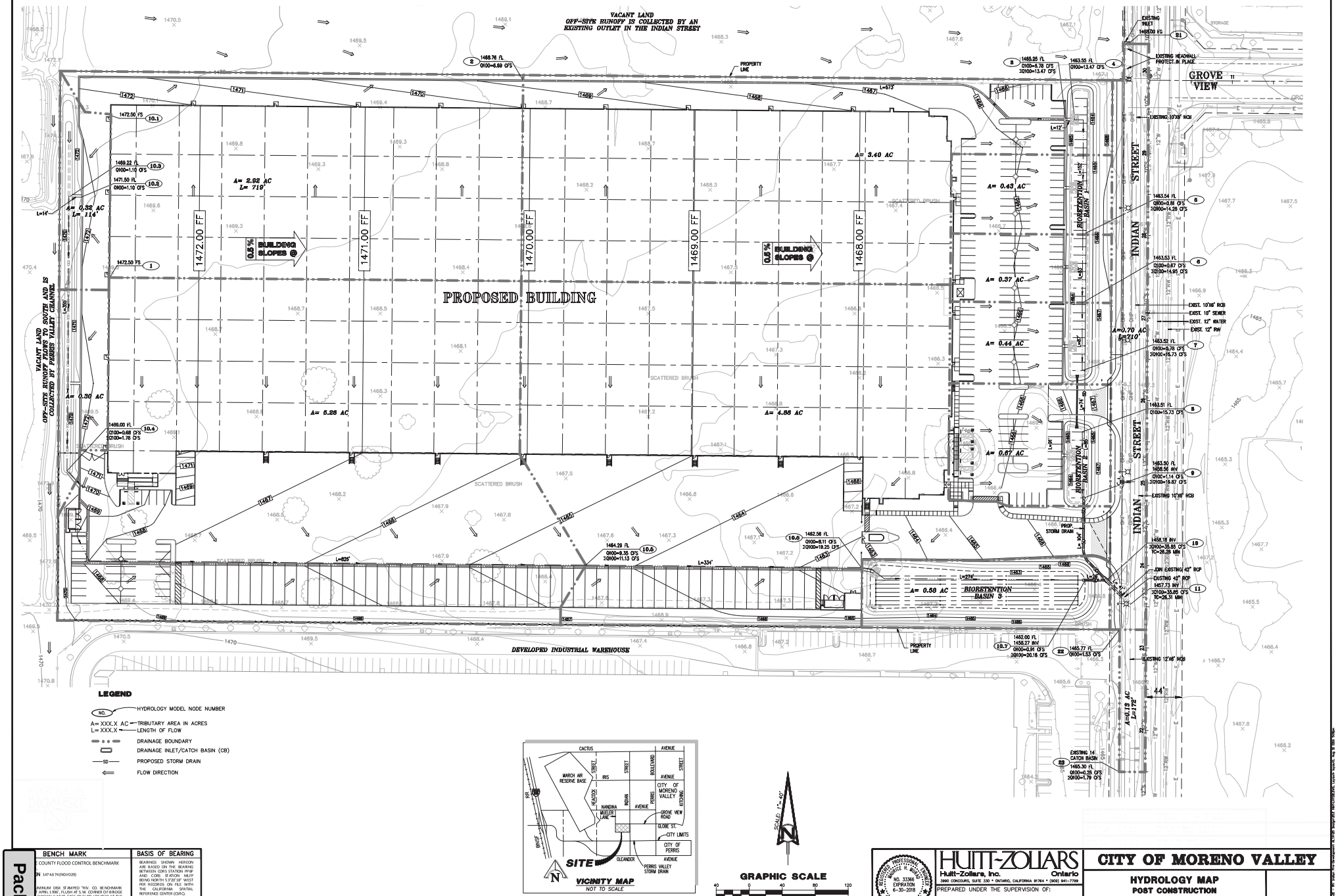
HUITT-ZOLLARS
Huitt-Zollars, Inc. Ontario
3990 CONCOURS, SUITE 330 • ONTARIO, CALIFORNIA 91764 • (909) 941-7799
PREPARED UNDER THE SUPERVISION OF:
MAURICE H. MURAD
R.C.E. NO. 33366 EXP. 6/30/18
DATE

CITY OF MORENO VALLEY

HYDROLOGY MAP
EXISTING CONDITION
MORENO VALLEY VOGEL INDUSTRIAL

SHEET 1 NO. 1

Attachment: Appendix C - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



BENCH MARK	BASIS OF BEARING
E COUNTY FLOOD CONTROL BENCHMARK N 1474.674 (NGVD29) UMINUM DISK STAMPED "INV. CO. BENCHMARK" APRIL 1996", FLUSH AT S.W. CORNER OF BRIDGE SIDEWALK NEAR FACE OF CURB LOCATED AT THE OF PERRIS BLVD. AND R.C.F.C. CHANNEL (PERRIS ") 43 FT WEST OF THE CENTERLINE OF PERRIS 4.5 FT EAST OF CONCRETE BRIDGE BARRIER	BEARINGS SHOWN HEREON ARE BASED ON THE BEARING BETWEEN CORS STATION PRIP AND CORS STATION MUPP BEING NORTH 5°20'18" WEST PER RECORDS ON FILE WITH THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC).

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PREPARED UNDER THE SUPERVISION OF:
MAURICE H. MURAD
R.C.E. NO. 33366 EXP. 6/30/18
DATE

CITY OF MORENO VALLEY

HYDROLOGY MAP
POST CONSTRUCTION
MORENO VALLEY VOGEL INDUSTRIAL

SHEET 1 NO. 1

Attachment: Appendix C - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Appendix B
100-year Rational Method Hydrologic Analysis

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
**************************************************************************
          RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
        RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                    (RCFC&WCD)  1978 HYDROLOGY MANUAL
         (c) Copyright 1982-2014 Advanced Engineering Software (aes)
                    (Rational Tabling Version 21.0)
                Release Date: 06/01/2014  License ID 1202

                          Analysis prepared by:

                           Huitt-Zollars, Inc.
                         3990 Concours, Suite 330
                            Ontario, CA. 91764
                              909.941.1119

 ************************** DESCRIPTION OF STUDY **************************
* MORENO VALLEY VOGEL INDUSTRIAL                                          *
* 100 YEAR STORM EVENT - EXISTING CONDITION                               *
* 3806EX                                                                  *
 **************************************************************************

  FILE NAME: 3806EX.DAT
  TIME/DATE OF STUDY: 15:40 06/24/2016
--------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
--------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  18.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  2-YEAR, 1-HOUR PRECIPITATION(INCH) =  0.460
  100-YEAR, 1-HOUR PRECIPITATION(INCH) =  1.200
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.200
  SLOPE OF INTENSITY DURATION CURVE = 0.4800
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: COMPUTE CONFLUENCE VALUES ACCORDING TO RCFC&WCD HYDROLOGY MANUAL
        AND IGNORE OTHER CONFLUENCE COMBINATIONS FOR DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-   CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)      (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  ==================  ======  =====  ====  =====  =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

**************************************************************************
  FLOW PROCESS FROM NODE      1.00 TO NODE      2.00 IS CODE =  21
--------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
==========================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS: UNDEVELOPED WITH FAIR COVER
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   742.00
  UPSTREAM ELEVATION(FEET) =   1470.96
  DOWNSTREAM ELEVATION(FEET) =   1467.72
```

```
 ELEVATION DIFFERENCE(FEET) =       3.24
 TC = 0.709*[(  742.00**3)/(     3.24)]**.2 =   29.582
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.685
 UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6640
 SOIL CLASSIFICATION IS "C"
 SUBAREA RUNOFF(CFS) =     11.03
 TOTAL AREA(ACRES) =      9.86   TOTAL RUNOFF(CFS) =     11.03

****************************************************************************
 FLOW PROCESS FROM NODE      2.00 TO NODE      3.00 IS CODE =  52
----------------------------------------------------------------------------
 >>>>>COMPUTE NATURAL VALLEY CHANNEL FLOW<<<<<
 >>>>>TRAVELTIME THRU SUBAREA<<<<<
============================================================================
 ELEVATION DATA: UPSTREAM(FEET) =   1467.72  DOWNSTREAM(FEET) =   1464.64
 CHANNEL LENGTH THRU SUBAREA(FEET) =   679.00   CHANNEL SLOPE =  0.0045
 CHANNEL FLOW THRU SUBAREA(CFS) =      11.03
 FLOW VELOCITY(FEET/SEC) =   1.73 (PER LACFCD/RCFC&WCD HYDROLOGY MANUAL)
 TRAVEL TIME(MIN.) =   6.56   Tc(MIN.) =   36.14
 LONGEST FLOWPATH FROM NODE      1.00 TO NODE      3.00 =    1421.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE      3.00 TO NODE      3.00 IS CODE =  81
----------------------------------------------------------------------------
 >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.531
 UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6468
 SOIL CLASSIFICATION IS "C"
 SUBAREA AREA(ACRES) =    9.89   SUBAREA RUNOFF(CFS) =    9.79
 TOTAL AREA(ACRES) =      19.8   TOTAL RUNOFF(CFS) =     20.82
 TC(MIN.) =   36.14
============================================================================
 END OF STUDY SUMMARY:
 TOTAL AREA(ACRES)     =      19.8  TC(MIN.) =    36.14
 PEAK FLOW RATE(CFS)   =     20.82
============================================================================
============================================================================
 END OF RATIONAL METHOD ANALYSIS
```

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
**************************************************************************
            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
         RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                       (RCFC&WCD)  1978 HYDROLOGY MANUAL
          (c) Copyright 1982-2014 Advanced Engineering Software (aes)
                       (Rational Tabling Version 21.0)
                  Release Date: 06/01/2014  License ID 1202

                            Analysis prepared by:

                              Huitt-Zollars, Inc.
                            3990 Concours, Suite 330
                               Ontario, CA. 91764
                                  909.941.1119

 ************************* DESCRIPTION OF STUDY ************************
* MORENO VALLEY VOGEL INDUSTRIAL                                         *
* 100 YEAR STORM EVENT                                                   *
* 100Q3806                                                               *
 **************************************************************************

  FILE NAME: 100Q3806.DAT
  TIME/DATE OF STUDY: 16:54 07/25/2016
--------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
--------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  18.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  2-YEAR, 1-HOUR PRECIPITATION(INCH) =  0.460
  100-YEAR, 1-HOUR PRECIPITATION(INCH) =  1.200
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.200
  SLOPE OF INTENSITY DURATION CURVE = 0.4800
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: COMPUTE CONFLUENCE VALUES ACCORDING TO RCFC&WCD HYDROLOGY MANUAL
        AND IGNORE OTHER CONFLUENCE COMBINATIONS FOR DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

**************************************************************************
  FLOW PROCESS FROM NODE      1.00 TO NODE      2.00 IS CODE =  21
--------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
==========================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS COMMERCIAL
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   719.00
  UPSTREAM ELEVATION(FEET) =   1472.50
  DOWNSTREAM ELEVATION(FEET) =   1468.76
```

```
  ELEVATION DIFFERENCE(FEET) =      3.74
  TC = 0.303*[(  719.00**3)/(     3.74)]**.2 =   12.052
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.593
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8831
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      6.69
  TOTAL AREA(ACRES) =      2.92   TOTAL RUNOFF(CFS) =      6.69

****************************************************************************
  FLOW PROCESS FROM NODE      2.00 TO NODE      3.00 IS CODE =  61
----------------------------------------------------------------------------
  >>>>>COMPUTE STREET FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>(STANDARD CURB SECTION USED)<<<<<
============================================================================
  UPSTREAM ELEVATION(FEET) = 1468.76  DOWNSTREAM ELEVATION(FEET) = 1465.25
  STREET LENGTH(FEET) =   673.00   CURB HEIGHT(INCHES) =  8.0
  STREET HALFWIDTH(FEET) = 34.00

  DISTANCE FROM CROWN TO CROSSFALL GRADEBREAK(FEET) =  29.00
  INSIDE STREET CROSSFALL(DECIMAL) =  0.038
  OUTSIDE STREET CROSSFALL(DECIMAL)  =  0.038

  SPECIFIED NUMBER OF HALFSTREETS CARRYING RUNOFF =  1
  STREET PARKWAY CROSSFALL(DECIMAL)  =  0.018
  Manning's FRICTION FACTOR for Streetflow Section(curb-to-curb) =   0.0150
  Manning's FRICTION FACTOR for Back-of-Walk Flow Section =   0.0200

    **TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      10.08
    STREETFLOW MODEL RESULTS USING ESTIMATED FLOW:
    STREET FLOW DEPTH(FEET) =  0.63
    HALFSTREET FLOOD WIDTH(FEET) =   13.34
    AVERAGE FLOW VELOCITY(FEET/SEC.) =    2.85
    PRODUCT OF DEPTH&VELOCITY(FT*FT/SEC.) =    1.79
  STREET FLOW TRAVEL TIME(MIN.) =   3.93   Tc(MIN.) =   15.98
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.264
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8812
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    3.40      SUBAREA RUNOFF(CFS) =    6.78
  TOTAL AREA(ACRES) =        6.3        PEAK FLOW RATE(CFS) =      13.47

  END OF SUBAREA STREET FLOW HYDRAULICS:
  DEPTH(FEET) = 0.69   HALFSTREET FLOOD WIDTH(FEET) =  16.19
  FLOW VELOCITY(FEET/SEC.) =  3.06   DEPTH*VELOCITY(FT*FT/SEC.) =   2.11
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      3.00 =    1392.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      3.00 TO NODE      4.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1465.25  DOWNSTREAM(FEET) =   1463.55
  CHANNEL LENGTH THRU SUBAREA(FEET) =    12.00   CHANNEL SLOPE =  0.1417
  CHANNEL BASE(FEET) =    3.00   "Z" FACTOR =   0.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   0.50
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.263
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8812
  SOIL CLASSIFICATION IS "C"
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      13.47
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =  14.85
  AVERAGE FLOW DEPTH(FEET) =   0.30   TRAVEL TIME(MIN.) =   0.01
  Tc(MIN.) =   16.00
  SUBAREA AREA(ACRES) =     0.00       SUBAREA RUNOFF(CFS) =    0.00
```

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
  TOTAL AREA(ACRES) =        6.3         PEAK FLOW RATE(CFS) =      13.47

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.30   FLOW VELOCITY(FEET/SEC.) =  14.85
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      4.00 =    1404.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      4.00 TO NODE      5.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1463.55  DOWNSTREAM(FEET) =   1463.54
  CHANNEL LENGTH THRU SUBAREA(FEET) =   152.00   CHANNEL SLOPE =  0.0001
  CHANNEL BASE(FEET) =   22.00   "Z" FACTOR =   4.000
  MANNING'S FACTOR = 0.022   MAXIMUM DEPTH(FEET) =   0.50

         ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
             CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
             ALLOWABLE DEPTH).
             AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
             ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.

   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.128
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8802
  SOIL CLASSIFICATION IS "C"
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      13.87
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   1.16
  AVERAGE FLOW DEPTH(FEET) =   0.50   TRAVEL TIME(MIN.) =   2.19
  Tc(MIN.) =   18.19
  SUBAREA AREA(ACRES) =     0.43       SUBAREA RUNOFF(CFS) =    0.81
  TOTAL AREA(ACRES) =        6.8         PEAK FLOW RATE(CFS) =      14.28

         ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
             CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
             ALLOWABLE DEPTH).
             AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
             ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.


  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.50   FLOW VELOCITY(FEET/SEC.) =   1.19

  ==>FLOWDEPTH EXCEEDS MAXIMUM ALLOWABLE DEPTH

  LONGEST FLOWPATH FROM NODE      1.00 TO NODE      5.00 =    1556.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      5.00 TO NODE      6.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1463.54  DOWNSTREAM(FEET) =   1463.53
  CHANNEL LENGTH THRU SUBAREA(FEET) =    83.00   CHANNEL SLOPE =  0.0001
  CHANNEL BASE(FEET) =   22.00   "Z" FACTOR =   4.000
  MANNING'S FACTOR = 0.022   MAXIMUM DEPTH(FEET) =   0.50

         ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
             CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
             ALLOWABLE DEPTH).
             AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
             ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.
```

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```
 100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.067
COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8798
SOIL CLASSIFICATION IS "C"
TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      14.61
TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   1.22
AVERAGE FLOW DEPTH(FEET) =   0.50   TRAVEL TIME(MIN.) =   1.14
Tc(MIN.) =   19.32
SUBAREA AREA(ACRES) =     0.37       SUBAREA RUNOFF(CFS) =    0.67
TOTAL AREA(ACRES) =        7.1         PEAK FLOW RATE(CFS) =      14.95

       ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
           CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
           ALLOWABLE DEPTH).
           AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
           ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.


END OF SUBAREA CHANNEL FLOW HYDRAULICS:
DEPTH(FEET) =  0.50   FLOW VELOCITY(FEET/SEC.) =   1.25

==>FLOWDEPTH EXCEEDS MAXIMUM ALLOWABLE DEPTH

LONGEST FLOWPATH FROM NODE      1.00 TO NODE      6.00 =    1639.00 FEET.

****************************************************************************
FLOW PROCESS FROM NODE      6.00 TO NODE      7.00 IS CODE =  51
----------------------------------------------------------------------------
>>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
>>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
ELEVATION DATA: UPSTREAM(FEET) =   1463.53  DOWNSTREAM(FEET) =   1463.52
CHANNEL LENGTH THRU SUBAREA(FEET) =    87.00   CHANNEL SLOPE =  0.0001
CHANNEL BASE(FEET) =   22.00   "Z" FACTOR =   4.000
MANNING'S FACTOR = 0.022   MAXIMUM DEPTH(FEET) =   0.50

       ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
           CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
           ALLOWABLE DEPTH).
           AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
           ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.

 100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.011
COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8793
SOIL CLASSIFICATION IS "C"
TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      15.34
TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   1.28
AVERAGE FLOW DEPTH(FEET) =   0.50   TRAVEL TIME(MIN.) =   1.13
Tc(MIN.) =   20.46
SUBAREA AREA(ACRES) =     0.44       SUBAREA RUNOFF(CFS) =    0.78
TOTAL AREA(ACRES) =        7.6         PEAK FLOW RATE(CFS) =      15.73

       ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
           CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
           ALLOWABLE DEPTH).
           AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
           ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.


END OF SUBAREA CHANNEL FLOW HYDRAULICS:
DEPTH(FEET) =  0.50   FLOW VELOCITY(FEET/SEC.) =   1.31

==>FLOWDEPTH EXCEEDS MAXIMUM ALLOWABLE DEPTH
```

```
 LONGEST FLOWPATH FROM NODE      1.00 TO NODE      7.00 =    1726.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE      7.00 TO NODE      8.00 IS CODE =  31
----------------------------------------------------------------------------
 >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
 >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
 ELEVATION DATA: UPSTREAM(FEET) =  1463.52  DOWNSTREAM(FEET) =  1463.51
 FLOW LENGTH(FEET) =    74.00   MANNING'S N =  0.012
 DEPTH OF FLOW IN  48.0 INCH PIPE IS  35.3 INCHES
 PIPE-FLOW VELOCITY(FEET/SEC.) =   1.59
 ESTIMATED PIPE DIAMETER(INCH) =  48.00    NUMBER OF PIPES =   1
 PIPE-FLOW(CFS) =      15.73
 PIPE TRAVEL TIME(MIN.) =   0.78    Tc(MIN.) =   21.24
 LONGEST FLOWPATH FROM NODE      1.00 TO NODE      8.00 =    1800.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE      8.00 TO NODE      9.00 IS CODE =  51
----------------------------------------------------------------------------
 >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
 >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
 ELEVATION DATA: UPSTREAM(FEET) =   1463.51  DOWNSTREAM(FEET) =   1463.50
 CHANNEL LENGTH THRU SUBAREA(FEET) =    85.00   CHANNEL SLOPE =  0.0001
 CHANNEL BASE(FEET) =   22.00   "Z" FACTOR =   4.000
 MANNING'S FACTOR = 0.022   MAXIMUM DEPTH(FEET) =   0.50

        ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
            CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
            ALLOWABLE DEPTH).
            AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
            ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.

  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.931
 COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8787
 SOIL CLASSIFICATION IS "C"
 TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      16.30
 TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   1.36
 AVERAGE FLOW DEPTH(FEET) =   0.50   TRAVEL TIME(MIN.) =   1.04
 Tc(MIN.) =   22.28
 SUBAREA AREA(ACRES) =     0.67       SUBAREA RUNOFF(CFS) =    1.14
 TOTAL AREA(ACRES) =        8.2         PEAK FLOW RATE(CFS) =      16.87

        ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
            CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
            ALLOWABLE DEPTH).
            AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
            ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.


 END OF SUBAREA CHANNEL FLOW HYDRAULICS:
 DEPTH(FEET) =  0.50   FLOW VELOCITY(FEET/SEC.) =   1.41

 ==>FLOWDEPTH EXCEEDS MAXIMUM ALLOWABLE DEPTH

 LONGEST FLOWPATH FROM NODE      1.00 TO NODE      9.00 =    1885.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE      9.00 TO NODE     10.00 IS CODE =  31
----------------------------------------------------------------------------
 >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
```

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
================================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1458.56  DOWNSTREAM(FEET) =  1458.18
  FLOW LENGTH(FEET) =   104.00   MANNING'S N =  0.012
  DEPTH OF FLOW IN  27.0 INCH PIPE IS  19.2 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   5.59
  ESTIMATED PIPE DIAMETER(INCH) =  27.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      16.87
  PIPE TRAVEL TIME(MIN.) =   0.31    Tc(MIN.) =   22.59
  LONGEST FLOWPATH FROM NODE      1.00 TO NODE     10.00 =    1989.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     10.00 TO NODE     10.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =   22.59
  RAINFALL INTENSITY(INCH/HR) =   1.92
  TOTAL STREAM AREA(ACRES) =     8.23
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     16.87

****************************************************************************
  FLOW PROCESS FROM NODE     10.10 TO NODE     10.20 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS COMMERCIAL
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   114.00
  UPSTREAM ELEVATION(FEET) =   1472.50
  DOWNSTREAM ELEVATION(FEET) =   1471.50
  ELEVATION DIFFERENCE(FEET) =      1.00
  TC = 0.303*[(  114.00**3)/(     1.00)]**.2 =    5.197
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.883
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8880
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      1.10
  TOTAL AREA(ACRES) =      0.32   TOTAL RUNOFF(CFS) =      1.10

****************************************************************************
  FLOW PROCESS FROM NODE     10.20 TO NODE     10.30 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1471.50  DOWNSTREAM(FEET) =   1469.22
  CHANNEL LENGTH THRU SUBAREA(FEET) =    14.00   CHANNEL SLOPE =  0.1629
  CHANNEL BASE(FEET) =    3.00   "Z" FACTOR =   0.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   0.50
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.868
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8879
  SOIL CLASSIFICATION IS "C"
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       1.11
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   5.76
  AVERAGE FLOW DEPTH(FEET) =   0.06   TRAVEL TIME(MIN.) =   0.04
  Tc(MIN.) =    5.24
  SUBAREA AREA(ACRES) =     0.00       SUBAREA RUNOFF(CFS) =    0.00
  TOTAL AREA(ACRES) =        0.3         PEAK FLOW RATE(CFS) =       1.11

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
```

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```
  DEPTH(FEET) =  0.06   FLOW VELOCITY(FEET/SEC.) =   5.77
  LONGEST FLOWPATH FROM NODE     10.10 TO NODE     10.30 =     128.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     10.30 TO NODE     10.40 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1469.22  DOWNSTREAM(FEET) =   1469.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   355.00   CHANNEL SLOPE =  0.0006
  CHANNEL BASE(FEET) =    2.00   "Z" FACTOR =   3.000
  MANNING'S FACTOR = 0.022   MAXIMUM DEPTH(FEET) =   1.00
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.558
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8829
  SOIL CLASSIFICATION IS "C"
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       1.45
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   0.83
  AVERAGE FLOW DEPTH(FEET) =   0.50   TRAVEL TIME(MIN.) =   7.16
  Tc(MIN.) =   12.40
  SUBAREA AREA(ACRES) =     0.30       SUBAREA RUNOFF(CFS) =    0.68
  TOTAL AREA(ACRES) =        0.6         PEAK FLOW RATE(CFS) =       1.78

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.56   FLOW VELOCITY(FEET/SEC.) =   0.87
  LONGEST FLOWPATH FROM NODE     10.10 TO NODE     10.40 =     483.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     10.40 TO NODE     10.50 IS CODE =  91
----------------------------------------------------------------------------
  >>>>>COMPUTE "V" GUTTER FLOW TRAVEL TIME THRU SUBAREA<<<<<
============================================================================
  UPSTREAM NODE ELEVATION(FEET) =   1469.00
  DOWNSTREAM NODE ELEVATION(FEET) =   1464.29
  CHANNEL LENGTH THRU SUBAREA(FEET) =   826.00
  "V" GUTTER WIDTH(FEET) =   3.00   GUTTER HIKE(FEET) =  0.080
  PAVEMENT LIP(FEET) =  0.030   MANNING'S N = .0150
  PAVEMENT CROSSFALL(DECIMAL NOTATION) = 0.01000
  MAXIMUM DEPTH(FEET) =   0.50
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.021
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8794
  SOIL CLASSIFICATION IS "C"
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      6.52
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   1.75
  AVERAGE FLOW DEPTH(FEET) =   0.28   FLOOD WIDTH(FEET) =   37.58
  "V" GUTTER FLOW TRAVEL TIME(MIN.) =   7.85   Tc(MIN.) =   20.25
  SUBAREA AREA(ACRES) =    5.26       SUBAREA RUNOFF(CFS) =    9.35
  TOTAL AREA(ACRES) =        5.9         PEAK FLOW RATE(CFS) =      11.13

  END OF SUBAREA "V" GUTTER HYDRAULICS:
  DEPTH(FEET) =  0.33   FLOOD WIDTH(FEET) =   47.03
  FLOW VELOCITY(FEET/SEC.) =   1.95   DEPTH*VELOCITY(FT*FT/SEC) =   0.64
  LONGEST FLOWPATH FROM NODE     10.10 TO NODE     10.50 =    1309.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     10.50 TO NODE     10.60 IS CODE =  91
----------------------------------------------------------------------------
  >>>>>COMPUTE "V" GUTTER FLOW TRAVEL TIME THRU SUBAREA<<<<<
============================================================================
  UPSTREAM NODE ELEVATION(FEET) =   1464.29
  DOWNSTREAM NODE ELEVATION(FEET) =   1462.56
  CHANNEL LENGTH THRU SUBAREA(FEET) =   334.00
  "V" GUTTER WIDTH(FEET) =   3.00   GUTTER HIKE(FEET) =  0.080
```

```
  PAVEMENT LIP(FEET) =  0.030   MANNING'S N = .0150
  PAVEMENT CROSSFALL(DECIMAL NOTATION) = 0.01000
  MAXIMUM DEPTH(FEET) =   0.50
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.900
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8784
  SOIL CLASSIFICATION IS "C"
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =     15.19
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   2.01
  AVERAGE FLOW DEPTH(FEET) =   0.37   FLOOD WIDTH(FEET) =   54.34
  "V" GUTTER FLOW TRAVEL TIME(MIN.) =   2.77   Tc(MIN.) =   23.02
  SUBAREA AREA(ACRES) =    4.86       SUBAREA RUNOFF(CFS) =    8.11
  TOTAL AREA(ACRES) =       10.7         PEAK FLOW RATE(CFS) =      19.25

  END OF SUBAREA "V" GUTTER HYDRAULICS:
  DEPTH(FEET) =  0.39   FLOOD WIDTH(FEET) =   59.52
  FLOW VELOCITY(FEET/SEC.) =   2.13   DEPTH*VELOCITY(FT*FT/SEC) =   0.84
  LONGEST FLOWPATH FROM NODE     10.10 TO NODE     10.60 =    1643.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     10.60 TO NODE     10.70 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1462.56  DOWNSTREAM(FEET) =   1462.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   274.00   CHANNEL SLOPE =  0.0020
  CHANNEL BASE(FEET) =   40.00   "Z" FACTOR =   4.000
  MANNING'S FACTOR = 0.022   MAXIMUM DEPTH(FEET) =   0.50
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.786
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8774
  SOIL CLASSIFICATION IS "C"
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      19.70
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   1.43
  AVERAGE FLOW DEPTH(FEET) =   0.33   TRAVEL TIME(MIN.) =   3.19
  Tc(MIN.) =   26.21
  SUBAREA AREA(ACRES) =     0.58       SUBAREA RUNOFF(CFS) =    0.91
  TOTAL AREA(ACRES) =       11.3         PEAK FLOW RATE(CFS) =      20.16

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.34   FLOW VELOCITY(FEET/SEC.) =   1.44
  LONGEST FLOWPATH FROM NODE     10.10 TO NODE     10.70 =    1917.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     10.70 TO NODE     10.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1458.27  DOWNSTREAM(FEET) =  1457.90
  FLOW LENGTH(FEET) =    26.00   MANNING'S N =  0.012
  DEPTH OF FLOW IN  24.0 INCH PIPE IS  14.9 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   9.83
  ESTIMATED PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      20.16
  PIPE TRAVEL TIME(MIN.) =   0.04    Tc(MIN.) =   26.26
  LONGEST FLOWPATH FROM NODE     10.10 TO NODE     10.00 =    1943.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     10.00 TO NODE     10.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
```

```
 TOTAL NUMBER OF STREAMS =  2
 CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
 TIME OF CONCENTRATION(MIN.) =   26.26
 RAINFALL INTENSITY(INCH/HR) =   1.78
 TOTAL STREAM AREA(ACRES) =    11.32
 PEAK FLOW RATE(CFS) AT CONFLUENCE =     20.16

 ** CONFLUENCE DATA **
 STREAM     RUNOFF       Tc      INTENSITY      AREA
 NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
     1       16.87    22.59        1.918         8.23
     2       20.16    26.26        1.784        11.32

 **********************************WARNING**********************************
 IN THIS COMPUTER PROGRAM, THE CONFLUENCE VALUE USED IS BASED
 ON THE RCFC&WCD FORMULA OF PLATE D-1 AS DEFAULT VALUE. THIS FORMULA
 WILL NOT NECESSARILY RESULT IN THE MAXIMUM VALUE OF PEAK FLOW.
 ***************************************************************************

 RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
 CONFLUENCE FORMULA USED FOR  2 STREAMS.

 ** PEAK FLOW RATE TABLE **
 STREAM     RUNOFF      Tc      INTENSITY
 NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
     1       34.21    22.59       1.918
     2       35.85    26.26       1.784

 COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
 PEAK FLOW RATE(CFS) =      35.85   Tc(MIN.) =   26.26
 TOTAL AREA(ACRES) =       19.6
 LONGEST FLOWPATH FROM NODE      1.00 TO NODE     10.00 =    1989.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE     10.00 TO NODE     11.00 IS CODE =  31
----------------------------------------------------------------------------
 >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
 >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
 ELEVATION DATA: UPSTREAM(FEET) =  1458.18  DOWNSTREAM(FEET) =  1457.73
 FLOW LENGTH(FEET) =    41.00   MANNING'S N =  0.012
 DEPTH OF FLOW IN  27.0 INCH PIPE IS  18.2 INCHES
 PIPE-FLOW VELOCITY(FEET/SEC.) =  12.59
 ESTIMATED PIPE DIAMETER(INCH) =  27.00    NUMBER OF PIPES =   1
 PIPE-FLOW(CFS) =      35.85
 PIPE TRAVEL TIME(MIN.) =   0.05    Tc(MIN.) =   26.31
 LONGEST FLOWPATH FROM NODE      1.00 TO NODE     11.00 =    2030.00 FEET.
============================================================================
 END OF STUDY SUMMARY:
 TOTAL AREA(ACRES)     =       19.6  TC(MIN.) =     26.31
 PEAK FLOW RATE(CFS)   =      35.85
============================================================================
============================================================================
 END OF RATIONAL METHOD ANALYSIS
```

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
**************************************************************************
            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
          RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                        (RCFC&WCD)  1978 HYDROLOGY MANUAL
          (c) Copyright 1982-2014 Advanced Engineering Software (aes)
                        (Rational Tabling Version 21.0)
                   Release Date: 06/01/2014  License ID 1202

                              Analysis prepared by:

                               Huitt-Zollars, Inc.
                              3990 Concours, Suite 330
                                Ontario, CA. 91764
                                   909.941.1119

 ************************* DESCRIPTION OF STUDY *************************
* MORENO VALLEY VOGEL INDUSTRIAL                                        *
* 100 YEAR STORM EVENT - STREET CAPACITY                                *
* 3806ST                                                                *
 ************************************************************************

  FILE NAME: 3806ST.DAT
  TIME/DATE OF STUDY: 14:15 04/01/2016
------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  18.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  2-YEAR, 1-HOUR PRECIPITATION(INCH) =  0.460
  100-YEAR, 1-HOUR PRECIPITATION(INCH) =  1.200
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.200
  SLOPE OF INTENSITY DURATION CURVE = 0.4800
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: COMPUTE CONFLUENCE VALUES ACCORDING TO RCFC&WCD HYDROLOGY MANUAL
        AND IGNORE OTHER CONFLUENCE COMBINATIONS FOR DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-   CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  ================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

**************************************************************************
  FLOW PROCESS FROM NODE     21.00 TO NODE     22.00 IS CODE =  21
------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
========================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS COMMERCIAL
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   710.00
  UPSTREAM ELEVATION(FEET) =   1468.00
  DOWNSTREAM ELEVATION(FEET) =   1465.77
```

```
 ELEVATION DIFFERENCE(FEET) =      2.23
 TC = 0.303*[(  710.00**3)/(     2.23)]**.2 =   13.264
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.476
 COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8825
 SOIL CLASSIFICATION IS "C"
 SUBAREA RUNOFF(CFS) =      1.53
 TOTAL AREA(ACRES) =      0.70   TOTAL RUNOFF(CFS) =      1.53

****************************************************************************
 FLOW PROCESS FROM NODE     22.00 TO NODE     23.00 IS CODE =  61
----------------------------------------------------------------------------
 >>>>>COMPUTE STREET FLOW TRAVEL TIME THRU SUBAREA<<<<<
 >>>>>(STANDARD CURB SECTION USED)<<<<<
============================================================================
 UPSTREAM ELEVATION(FEET) = 1465.77  DOWNSTREAM ELEVATION(FEET) = 1465.30
 STREET LENGTH(FEET) =   172.00   CURB HEIGHT(INCHES) =  8.0
 STREET HALFWIDTH(FEET) = 32.00

 DISTANCE FROM CROWN TO CROSSFALL GRADEBREAK(FEET) =  27.00
 INSIDE STREET CROSSFALL(DECIMAL) =  0.020
 OUTSIDE STREET CROSSFALL(DECIMAL)  =  0.020

 SPECIFIED NUMBER OF HALFSTREETS CARRYING RUNOFF =  1
 STREET PARKWAY CROSSFALL(DECIMAL)  =  0.020
 Manning's FRICTION FACTOR for Streetflow Section(curb-to-curb) =   0.0150
 Manning's FRICTION FACTOR for Back-of-Walk Flow Section =   0.0200

   **TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       1.66
   STREETFLOW MODEL RESULTS USING ESTIMATED FLOW:
   STREET FLOW DEPTH(FEET) =  0.37
   HALFSTREET FLOOD WIDTH(FEET) =   10.62
   AVERAGE FLOW VELOCITY(FEET/SEC.) =    1.26
   PRODUCT OF DEPTH&VELOCITY(FT*FT/SEC.) =    0.47
 STREET FLOW TRAVEL TIME(MIN.) =   2.27   Tc(MIN.) =   15.54
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.295
 COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8814
 SOIL CLASSIFICATION IS "C"
 SUBAREA AREA(ACRES) =    0.13      SUBAREA RUNOFF(CFS) =    0.26
 TOTAL AREA(ACRES) =        0.8        PEAK FLOW RATE(CFS) =       1.79

 END OF SUBAREA STREET FLOW HYDRAULICS:
 DEPTH(FEET) = 0.38   HALFSTREET FLOOD WIDTH(FEET) =  11.04
 FLOW VELOCITY(FEET/SEC.) =  1.27   DEPTH*VELOCITY(FT*FT/SEC.) =   0.48
 LONGEST FLOWPATH FROM NODE     21.00 TO NODE     23.00 =     882.00 FEET.
============================================================================
 END OF STUDY SUMMARY:
 TOTAL AREA(ACRES)      =         0.8  TC(MIN.) =     15.54
 PEAK FLOW RATE(CFS)    =        1.79
============================================================================
============================================================================
 END OF RATIONAL METHOD ANALYSIS
```

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Appendix C
Hydraulic Analysis - WSPGW

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

```
                                                4806LINE-A.WSW
T1 SARES REGIS MORENO VALLEY INDUSTRIAL                                        0
T2 100 YEAR STORM EVENT
T3 ON-SITE STORM DRAIN LINE A
SO    109.1901457.710  1                          1462.400
R     115.0101458.090  1      .012                                .000    .000 0
R     140.4101458.180  1      .012                                .000    .000 0
JX    145.5001458.200  2  2   .012   18.980         1458.190         45.0          .000
R     171.8201458.290  2      .012                                .000    .000 0
R     189.5701458.350  2      .012                              45.000    .000 0
R     250.1201458.560  2      .012                                .000    .000 0
SH    250.1201458.560  2                          1458.560
CD   1  4   1    .000   3.500     .000  .000  .000   .00
CD   2  4   1    .000   2.000     .000  .000  .000   .00
Q            16.870   .0
```


Packet Pg. 4910

E.2.u

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Program Package Serial Number: 1404

WATER SURFACE PROFILE LISTING Date: 7-27-2016 Time:10:52: 4

SARES REGIS MORENO VALLEY INDUSTRIAL

100 YEAR STORM EVENT

ON-SITE STORM DRAIN LINE A

Station	Invert Elev	Depth (FT)	Water Elev	Q (CFS)	Vel (FPS)	Vel Head / SF Ave	Energy Grd.El. / HF	Super Elev / SE Dpth	Critical Depth / Froude N	Flow Top Width / Norm Dp	Height/Dia.-FT / "N"	Base Wt or I.D. / X-Fall	ZL / ZR	No Wth Prs/Pip / Type Ch
109.190	1457.710	4.690	1462.400	35.85	3.73	.22	1462.62	.00	1.86	.00	3.500	.000	.00	1 .0
5.820	.0653					.0011	.01	4.69	.00	.85	.012	.00	.00	PIPE
115.010	1458.090	4.316	1462.406	35.85	3.73	.22	1462.62	.00	1.86	.00	3.500	.000	.00	1 .0
25.400	.0035					.0011	.03	4.32	.00	1.86	.012	.00	.00	PIPE
140.410	1458.180	4.254	1462.434	35.85	3.73	.22	1462.65	.00	1.86	.00	3.500	.000	.00	1 .0
JUNCT STR	.0039					.0029	.01	4.25	.00		.012	.00	.00	PIPE
145.500	1458.200	4.063	1462.263	16.87	5.37	.45	1462.71	.00	1.48	.00	2.000	.000	.00	1 .0
26.320	.0034					.0047	.12	4.06	.00	2.00	.012	.00	.00	PIPE
171.820	1458.290	4.098	1462.388	16.87	5.37	.45	1462.84	.00	1.48	.00	2.000	.000	.00	1 .0
17.750	.0034					.0047	.08	.00	.00	2.00	.012	.00	.00	PIPE
189.570	1458.350	4.186	1462.536	16.87	5.37	.45	1462.98	.00	1.48	.00	2.000	.000	.00	1 .0
60.550	.0035					.0047	.29	4.19	.00	2.00	.012	.00	.00	PIPE
250.120	1458.560	4.262	1462.822	16.87	5.37	.45	1463.27	.00	1.48	.00	2.000	.000	.00	1 .0

```
                                                    4806LAT-A1.WSW
T1 SARES REGIS MORENO VALLEY INDUSTRIAL                                                0
T2 100 YEAR STORM EVENT
T3 ON-SITE STORM DRAIN LAT. A-1
SO    102.3201458.190  1                          1462.263
R     126.5001458.270  1      .012                                .000    .000 0
SH    126.5001458.270  1                          1458.270
CD   1  4   1    .000   2.000     .000  .000  .000   .00
Q            20.160   .0
```


Packet Pg. 4912

E.2.u

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Program Package Serial Number: 1404

WATER SURFACE PROFILE LISTING Date: 7-27-2016 Time:11: 0:15

SARES REGIS MORENO VALLEY INDUSTRIAL

100 YEAR STORM EVENT

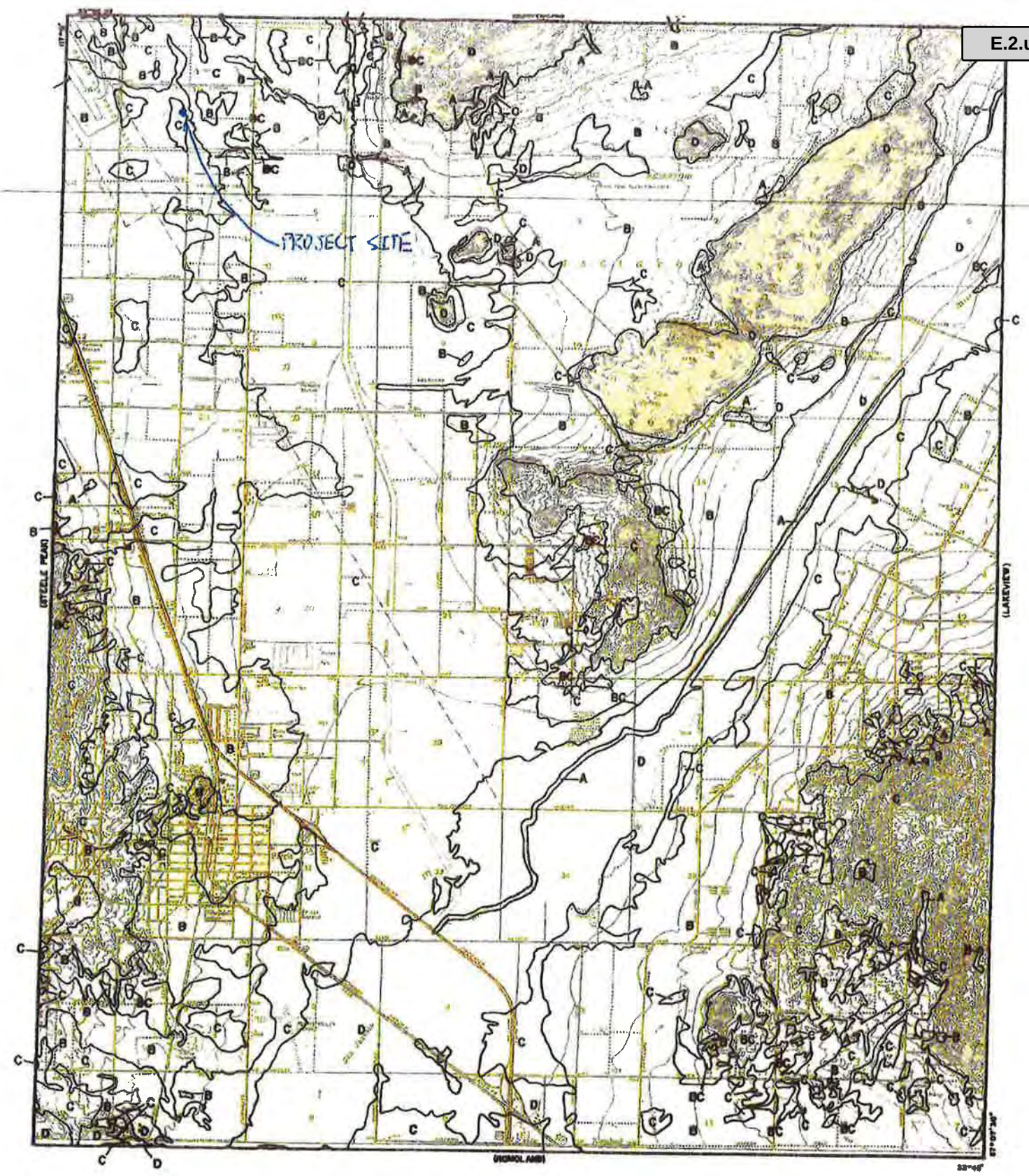
ON-SITE STORM DRAIN LAT. A-1

Station	Invert Elev	Depth (FT)	Water Elev	Q (CFS)	Vel (FPS)	Vel Head / SF Ave	Energy Grd.El. / HF	Super Elev / SE Dpth	Critical Depth / Froude N	Flow Top Width / Norm Dp	Height/Dia.-FT / "N"	Base Wt or I.D. / X-Fall	ZL / ZR	No Wth Prs/Pip / Type Ch
102.320	1458.190	4.073	1462.263	20.16	6.42	.64	1462.90	.00	1.61	.00	2.000	.000	.00	1 .0
24.180	.0033					.0068	.16	4.07	.00	2.00	.012	.00	.00	PIPE
126.500	1458.270	4.157	1462.427	20.16	6.42	.64	1463.07	.00	1.61	.00	2.000	.000	.00	1 .0

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Appendix D
Soil Group Map and Isohyetal Map

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



LEGEND

—— SOILS GROUP BOUNDARY

A SOILS GROUP DESIGNATION

RCFC&WCD

HYDROLOGY MANUAL

N

0 FEET 5000

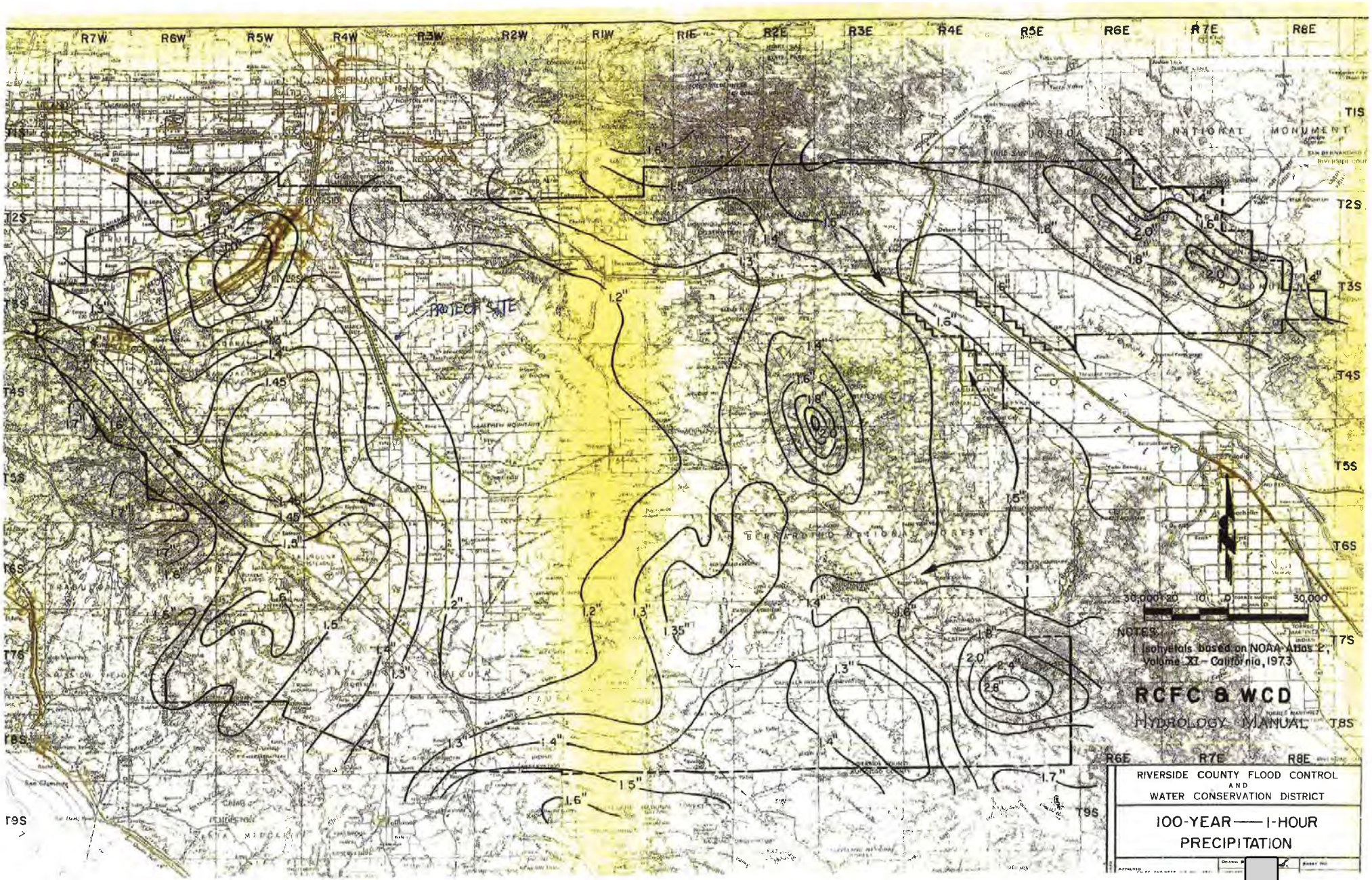
HYDROLOGIC SOILS GROUP MAP FOR PERRIS

PLATE C-1.30

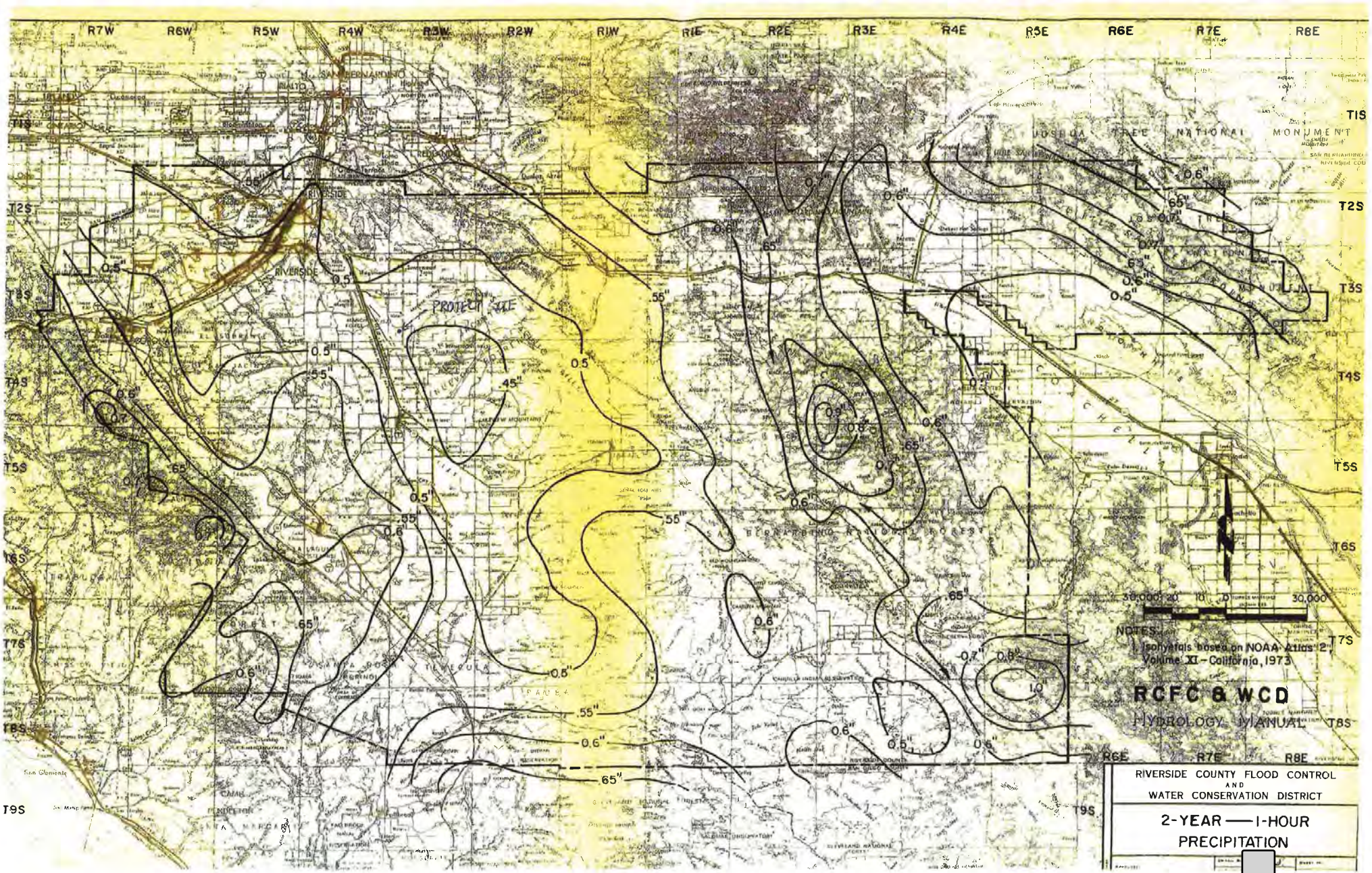
Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING


R7W
R6W
R5W
R4W
R3W
R2W
R1W
R1E
R2E
R3E
R4E
R5E
R6E
R7E
R8E
T1S
T2S
T3S
T4S
T5S
T6S
T7S
T8S
T9S
.50
.55
.45
.58
.60
.65
RIVERSIDE
SAN BERNARDINO
RIALTO
JOSHUA TREE NATIONAL MONUMENT
NOTES:
1) Slope of Intensity-Duration Curve based on District analysis of automatic recording rain gage records.
RCFC & WCD
HYDROLOGY MANUAL
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
SLOPE OF INTENSITY DURATION CURVE

E.2.u


R7W
R6W
R5W
R4W
R3W
R2W
R1W
R1E
R2E
R3E
R4E
R5E
R6E
R7E
R8E
T1S
T2S
T3S
T4S
T5S
T6S
T7S
T8S
T9S
PROJECT SITE
JOSHUA TREE NATIONAL MONUMENT
SAN BERNARDINO NATIONAL FOREST
1.2"
1.3"
1.4"
1.45"
1.5"
1.6"
1.7"
1.8"
2.0"
2.4"
2.8"
1.35"
NOTES:
1. Isohyetals based on NOAA Atlas 2, Volume XI - California, 1973
RCFC & WCD
HYDROLOGY MANUAL
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
100-YEAR — 1-HOUR PRECIPITATION

E.2.u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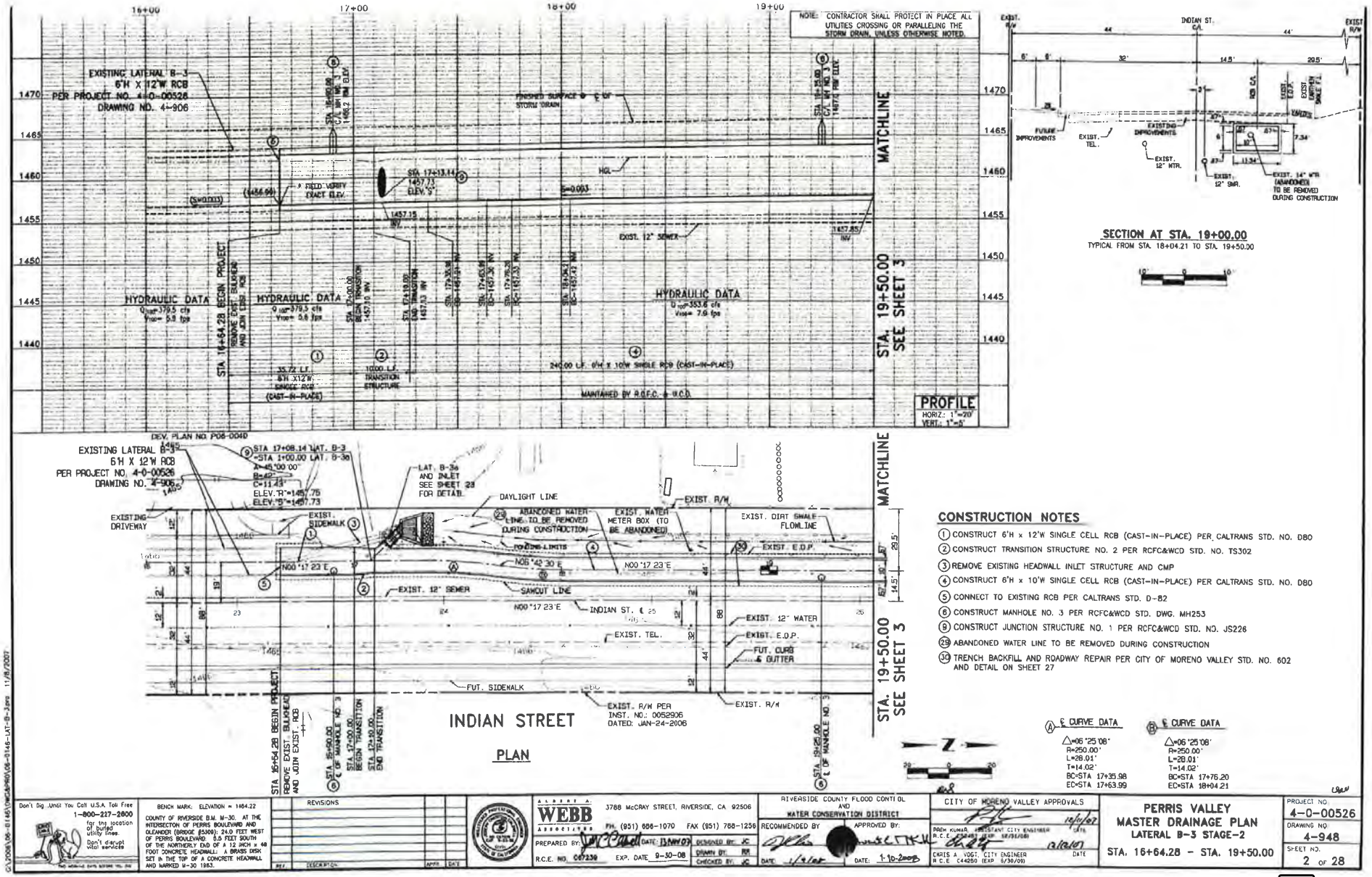
PROJECT SITE
RIVERSIDE
RIALTO
SAN BERNARDINO
JOSHUA TREE NATIONAL MONUMENT
NOTES:
Isohyetals based on NOAA Atlas 2, Volume XI - California, 1973
RCFC & WCD
HYDROLOGY MANUAL
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
2-YEAR — 1-HOUR PRECIPITATION
E.2.u

Appendix E
Reference Plan –
Partial Perris Valley Master Drainage Plan DWG. 4-948

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



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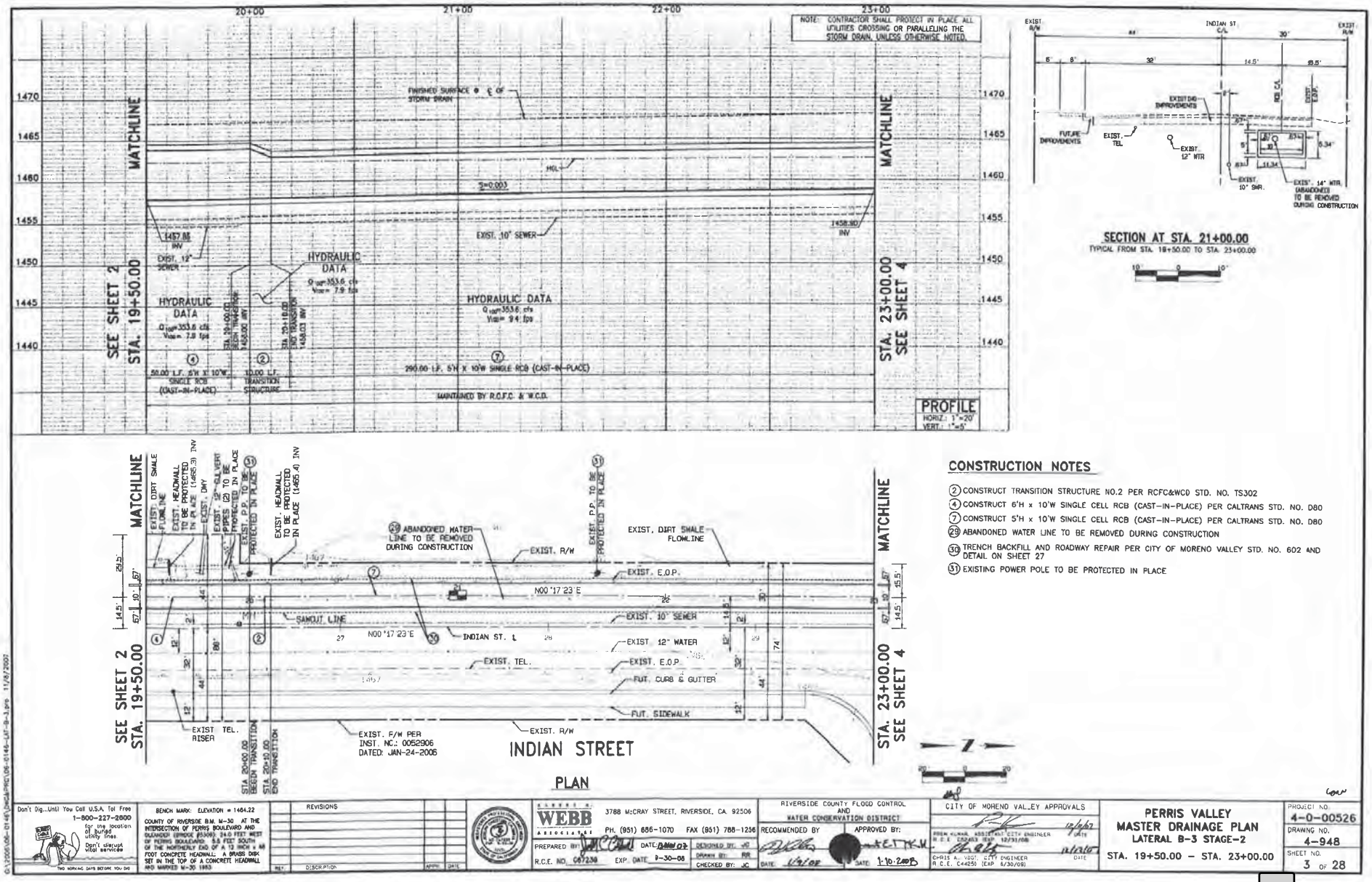

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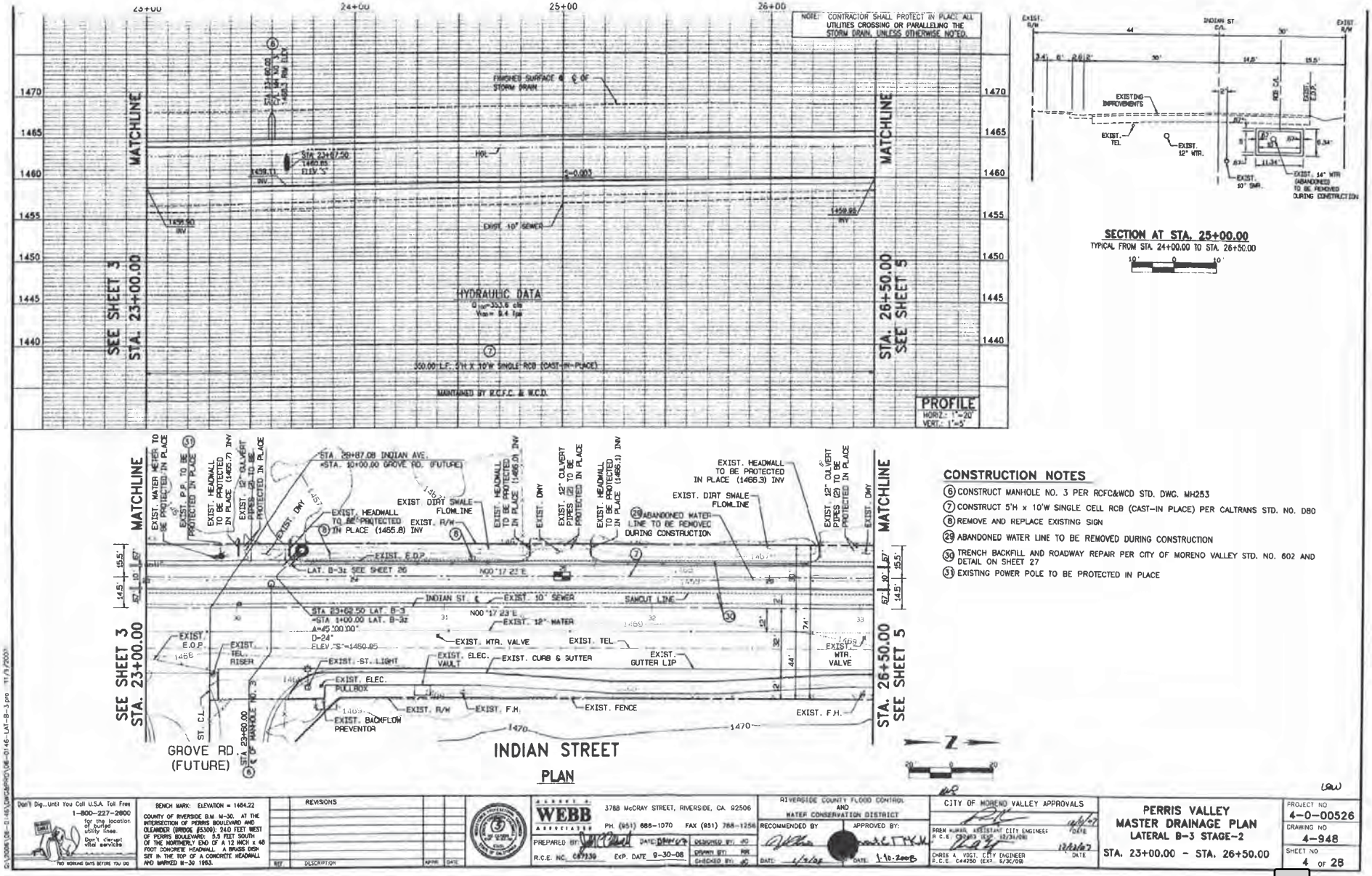

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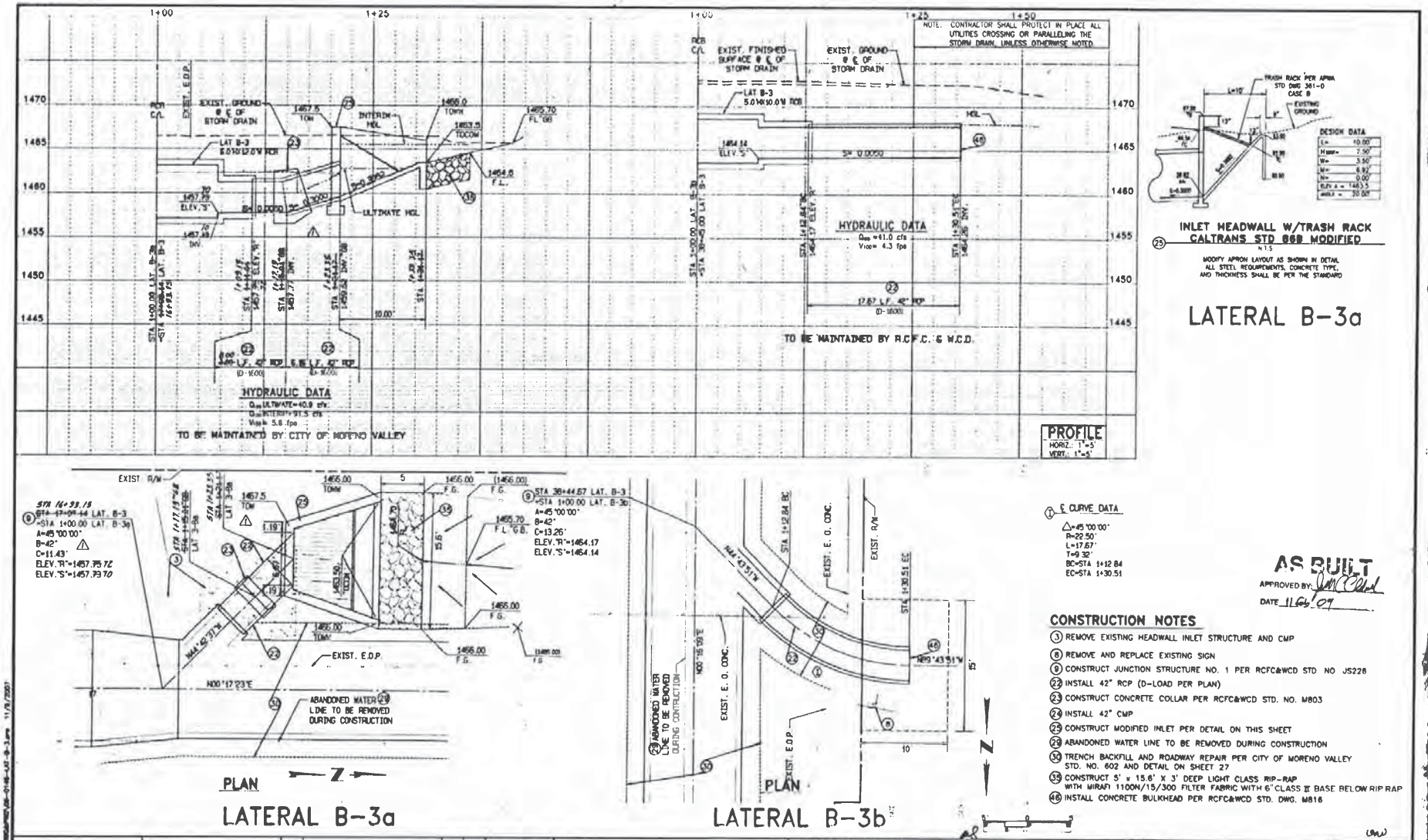

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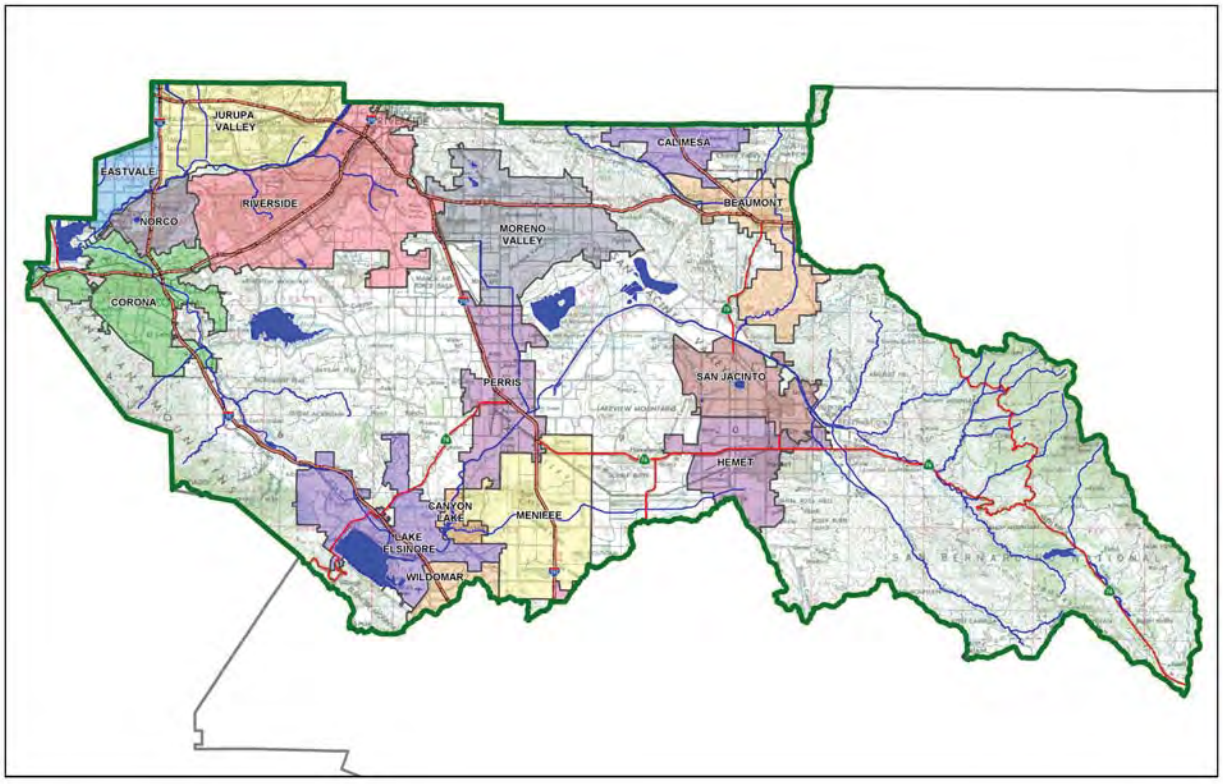
Project Specific Water Quality Management Plan

*A Template for Projects located within the **Santa Ana Watershed** Region of Riverside County*

Project Title: Moreno Valley Vogel Industrial

Development No:

Design Review/Case No: PA16-0002



Contact Information:

Prepared for:
Sares Regis Group
Patrick Russell
18802 Bardeen Avenue
Irvine, CA 92612
949-809-2414

☐ **Preliminary**
☒ **Final**

Original Date Prepared: 08/15/2016

Revision Date(s):

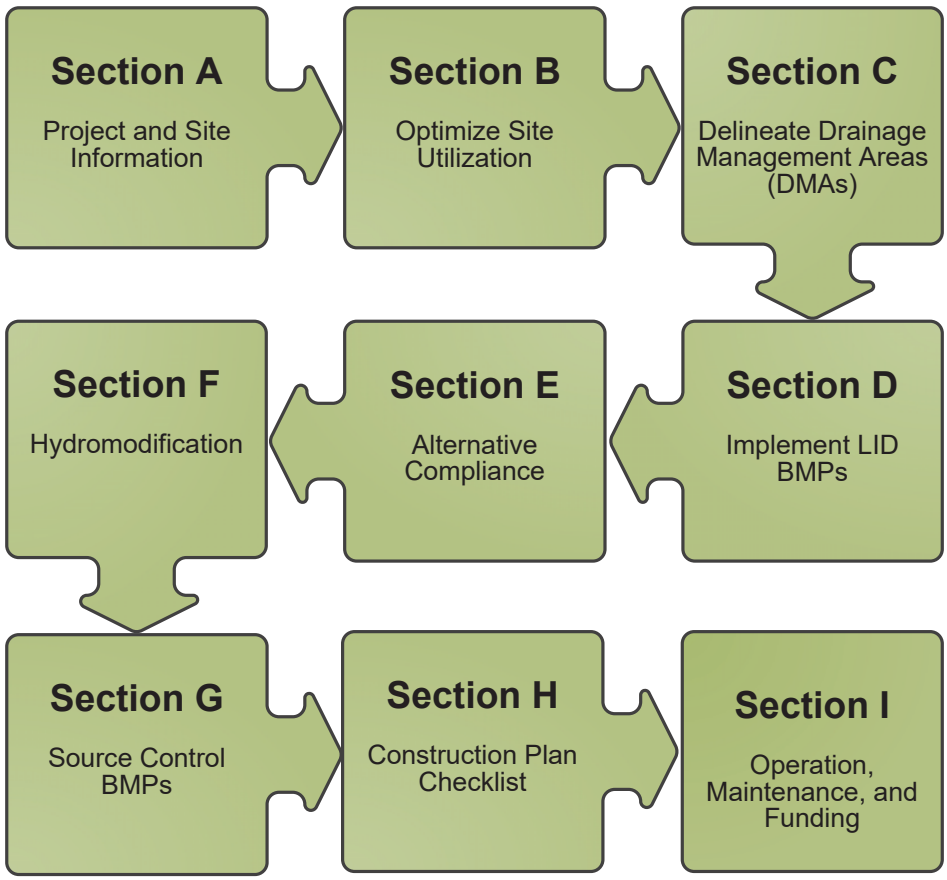
Prepared by:
Huitt-Zollars, Inc.
3990 Concours, Suite 330
Ontario, CA 91764
909-941-7799

Prepared for Compliance with
Regional Board Order No. **R8-2010-0033**

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

A Brief Introduction

This Project-Specific WQMP Template for the **Santa Ana Region** has been prepared to help guide you in documenting compliance for your project. Because this document has been designed to specifically document compliance, you will need to utilize the WQMP Guidance Document as your "how-to" manual to help guide you through this process. Both the Template and Guidance Document go hand-in-hand, and will help facilitate a well prepared Project-Specific WQMP. Below is a flowchart for the layout of this Template that will provide the steps required to document compliance.



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OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for Sares Regis Group by Huitt-Zollars, Inc. for the Moreno Valley Vogel Industrial project.

This WQMP is intended to comply with the requirements of City of Moreno Valley for APN: 316-210-19, 20, 57 and 77 which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under City of Moreno Valley Water Quality Ordinance (Municipal Code Section 8.10).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Owner's Signature

JULY 25, 2016
Date

PATRICK RUSSELL
Owner's Printed Name

VICE PRESIDENT
Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan meet the requirements of Regional Water Quality Control Board Order No. **R8-2010-0033** and any subsequent amendments thereto."

Preparer's Signature

7-27-16
Date

DAVID WHITE
Preparer's Printed Name

PROJECT MANAGER
Preparer's Title/Position

Preparer's Licensure:

REGISTERED PROFESSIONAL ENGINEER
DAVID L. WHITE
NO. C52921
EXP. 12-31-16
CIVIL
STATE OF CALIFORNIA

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Orange)

On July 25, 2016 (Date) before me, Bridgit Lauri Brannon-Terpening, Notary Public (Here Insert Name and Title of the Officer)

personally appeared Patrick Russell (Name(s) of Signer(s))

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

BRIDGIT LAURI BRANNON-TERPENING
Commission # 2068054
Notary Public - California
Orange County
My Comm. Expires May 12, 2018

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Bridgit Lauri Brannon-Terpening
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document
Title or Type of Document: WAMP - Owners Certificate Document Date: 7/25/2016
Number of Pages: 1 Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____
Signer Is Representing: _____

Signer's Name: _____
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____
Signer Is Representing: _____

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Section A: Project and Site Information

PROJECT INFORMATION	
Type of Project:	Industrial
Planning Area:	850,829 SF (~19.6 Acres)
Community Name:	Moreno Vogel Valley Industrial
Development Name:	Moreno Valley Vogel Industrial
	The project is a new development of an industrial warehouse facility located at the southwest corner of Indian Street and Grove View Road, in the City of Moreno Valley. The proposed building is approximately 446,350 square feet in size on approximately 19.6 acres of an undeveloped land. New curb, gutter and commercial driveway entrances will be installed along Indian Street. The existing site is vacant and slopes gently from northwest to southeast. Runoff is collected in a headwall along Indian Street and conveyed to the Perris Valley Channel via the Indian Street storm drain.
PROJECT LOCATION	
Latitude & Longitude (DMS): 33°51'42.76"N & 117°14'13.48"W	
Project Watershed and Sub-Watershed: Santa Ana Watershed & San Jacinto Watershed	
APN(s): APN: 316-210-19, 20, 57 and 77	
Map Book and Page No.: Thomas Bros. Map, Page 747	
PROJECT CHARACTERISTICS	
Proposed or Potential Land Use(s)	Industrial
Proposed or Potential SIC Code(s)	4225
Area of Impervious Project Footprint (SF)	743,934
Total Area of proposed Impervious Surfaces within the Project Limits (SF)/or Replacement	743,934
Does the project consist of offsite road improvements?	☐ Y ☒ N
Does the project propose to construct unpaved roads?	☐ Y ☒ N
Is the project part of a larger common plan of development (phased project)?	☐ Y ☒ N
EXISTING SITE CHARACTERISTICS	
Total area of existing Impervious Surfaces within the project limits (SF)	0
Is the project located within any MSHCP Criteria Cell? (see next page)	☐ Y ☒ N
If so, identify the Cell number:	N/A
Are there any natural hydrologic features on the project site?	☐ Y ☒ N
Is a Geotechnical Report attached?	☒ Y ☐ N
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)	N/A
What is the Water Quality Design Storm Depth for the project?	0.63"

A.1 Maps and Site Plans

When completing your Project-Specific WQMP, include a map of the local vicinity and existing site. In addition, include all grading, drainage, landscape/plant palette and other pertinent construction plans in Appendix 2. At a **minimum**, your WQMP Site Plan should include the following:

- Drainage Management Areas
- Proposed Structural BMPs
- Drainage Path
- Drainage Infrastructure, Inlets, Overflows
- Source Control BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Standard Labeling

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RCA MSHCP Information App

with Web AppBuilder for ArcGIS



Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Use your discretion on whether or not you may need to create multiple sheets or can appropriately accommodate these features on one or two sheets. Keep in mind that the Co-Permittee plan reviewer must be able to easily analyze your project utilizing this template and its associated site plans and maps.

A.2 Identify Receiving Waters

Using Table A.1 below, list in order of upstream to downstream, the receiving waters that the project site is tributary to. Continue to fill each row with the Receiving Water's 303(d) listed impairments (if any), designated beneficial uses, and proximity, if any, to a RARE beneficial use. Include a map of the receiving waters in Appendix 1.

Table A.1 Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
San Jacinto River Reach 3, HU#802.11	NONE	AGR, GWR, REC1, REC2, WARM, WILD	Not designated as RARE
Canyon Lake (Railroad Canyon Reservoir), HU#802.11, 802.12	Nutrients, Pathogens	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not designated as RARE
San Jacinto River Reach 1, HU#802.32,802.31	NONE	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not designated as RARE
Lake Elsinore HU#802.31	Nutrients, Organic Enrichment/Low Dissolved Oxygen, PCB's, Sedimentation/Siltation, Unknown Toxicity	MUN, REC1, REC2, WARM, WILD	Not designated as RARE

A.3 Additional Permits/Approvals required for the Project:

Table A.2 Other Applicable Permits

Agency	Permit Required	
State Department of Fish and Game, 1602 Streambed Alteration Agreement	☐ Y	☒ N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	☐ Y	☒ N
US Army Corps of Engineers, CWA Section 404 Permit	☐ Y	☒ N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	☐ Y	☒ N
Statewide Construction General Permit Coverage	☒ Y	☐ N
Statewide Industrial General Permit Coverage	☐ Y	☒ N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	☐ Y	☒ N
Other *(please list in the space below as required)* City of Moreno Valley Building & Grading Permits Riverside County FCD – Connection Permit to public storm drain in Indian Street	☒ Y	☐ N

If yes is answered to any of the questions above, the Co-Permittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

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Section B: Optimize Site Utilization (LID Principles)

Review of the information collected in Section 'A' will aid in identifying the principal constraints on site design and selection of LID BMPs as well as opportunities to reduce imperviousness and incorporate LID Principles into the site and landscape design. For example, constraints might include impermeable soils, high groundwater, groundwater pollution or contaminated soils, steep slopes, geotechnical instability, high-intensity land use, heavy pedestrian or vehicular traffic, utility locations or safety concerns. Opportunities might include existing natural areas, low areas, oddly configured or otherwise unbuildable parcels, easements and landscape amenities including open space and buffers (which can double as locations for bioretention BMPs), and differences in elevation (which can provide hydraulic head). Prepare a brief narrative for each of the site optimization strategies described below. This narrative will help you as you proceed with your LID design and explain your design decisions to others.

The 2010 Santa Ana MS4 Permit further requires that LID Retention BMPs (Infiltration Only or Harvest and Use) be used unless it can be shown that those BMPs are infeasible. Therefore, it is important that your narrative identify and justify if there are any constraints that would prevent the use of those categories of LID BMPs. Similarly, you should also note opportunities that exist which will be utilized during project design. Upon completion of identifying Constraints and Opportunities, include these on your WQMP Site plan in Appendix 1.

Site Optimization

The following questions are based upon Section 3.2 of the WQMP Guidance Document. Review of the WQMP Guidance Document will help you determine how best to optimize your site and subsequently identify opportunities and/or constraints, and document compliance.

Did you identify and preserve existing drainage patterns? If so, how? If not, why?

Yes. The site mimics the existing topography by draining from northwest to southeast.

Did you identify and protect existing vegetation? If so, how? If not, why?

No. The site has no existing vegetation to protect. The planting of new vegetation will be occur throughout the site.

Did you identify and preserve natural infiltration capacity? If so, how? If not, why?

Yes. Natural infiltration capacity was identified by the soil (infiltration) report, however it is below the minimum rate.

Did you identify and minimize impervious area? If so, how? If not, why?

No. The developer has chosen to maximize the building and parking footprint.

Did you identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

Yes. Runoff will be directed to proposed bioretention basins 1, 2, & 3 on the east and southeast corner of the project site.

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Section C: Delineate Drainage Management Areas (DMAs)

Utilizing the procedure in Section 3.3 of the WQMP Guidance Document which discusses the methods of delineating and mapping your project site into individual DMAs, complete Table C.1 below to appropriately categorize the types of classification (e.g., Type A, Type B, etc.) per DMA for your project site. Upon completion of this table, this information will then be used to populate and tabulate the corresponding tables for their respective DMA classifications.

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s)[1]	Area (Sq. Ft.)	DMA Type
DMA A	Mixed Surface Types	358,418	D
DMA B	Mixed Surface Types	492,411	D

[1]*Reference Table 2-1 in the WQMP Guidance Document to populate this column*

Table C.2 Type 'A', Self-Treating Areas (N/A)

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)

Table C.3 Type 'B', Self-Retaining Areas (N/A)

Self-Retaining Area				**Type 'C' DMAs that are draining to the Self-Retaining Area**		
DMA Name/ ID	Post-project surface type	Area (square feet) [A]	Storm Depth (inches) [B]	DMA Name / ID	[C] from Table C.4 = [C]	Required Retention Depth (inches) [D]

$$[D] = [B] + \frac{[B] \cdot [C]}{[A]}$$

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Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas (N/A)

DMA					Receiving Self-Retaining DMA		
DMA Name/ ID	Area (square feet)	Post-project surface type	Runoff factor	Product	DMA name /ID	Area (square feet)	Ratio
	[A]		[B]	[C] = [A] x [B]		[D]	[C]/[D]

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
DMA A	Bioretention Basin 1 & 2 (Basins are linked by a 18" RCP)
DMA B	Bioretention Basin 3

Note: More than one drainage management area can drain to a single LID BMP, however, one drainage management area may not drain to more than one BMP.

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Section D: Implement LID BMPs

D.1 Infiltration Applicability

Is there an approved downstream 'Highest and Best Use' for stormwater runoff (see discussion in Chapter 2.4.4 of the WQMP Guidance Document for further details)? ☐ Y ☒ N

If yes has been checked, Infiltration BMPs shall not be used for the site. If no, continue working through this section to implement your LID BMPs. It is recommended that you contact your Co-Permittee to verify whether or not your project discharges to an approved downstream 'Highest and Best Use' feature.

Geotechnical Report

A Geotechnical Report or Phase I Environmental Site Assessment may be required by the Copermittee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Co-Permittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the WQMP Guidance Document. If a geotechnical report has been prepared, include it in Appendix 3. In addition, if a Phase I Environmental Site Assessment has been prepared, include it in Appendix 4.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? ☐ Y ☒ N

Infiltration Feasibility

Table D.1 below is meant to provide a simple means of assessing which DMAs on your site support Infiltration BMPs and is discussed in the WQMP Guidance Document in Chapter 2.4.5. Check the appropriate box for each question and then list affected DMAs as applicable. If additional space is needed, add a row below the corresponding answer.

Table D.1 Infiltration Feasibility

Does the project site…	YES	NO
…have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		X
If Yes, list affected DMAs:		
…have any DMAs located within 100 feet of a water supply well?		X
If Yes, list affected DMAs:		
…have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		X
If Yes, list affected DMAs:		
…have measured in-situ infiltration rates of less than 1.6 inches / hour?	X	
If Yes, list affected DMAs:	DMA A & B	
…have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		X
If Yes, list affected DMAs:		
…geotechnical report identify other site-specific factors that would preclude effective and safe infiltration?		X
Describe here:		

If you answered "Yes" to any of the questions above for any DMA, Infiltration BMPs should not be used for those DMAs and you should proceed to the assessment for Harvest and Use below.

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D.2 Harvest and Use Assessment

Please check what applies*:*

■ Reclaimed water will be used for the non-potable water demands for the project.

☐Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Copermittee).

☐The Design Capture Volume will be addressed using Infiltration Only BMPs. In such a case, Harvest and Use BMPs are still encouraged, but it would not be required if the Design Capture Volume will be infiltrated or evapotranspired.

If any of the above boxes have been checked, Harvest and Use BMPs need not be assessed for the site. If neither of the above criteria applies, follow the steps below to assess the feasibility of irrigation use, toilet use and other non-potable uses (e.g., industrial use).

Irrigation Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for Irrigation Use BMPs on your site:

Step 1: Identify the total area of irrigated landscape on the site, and the type of landscaping used.

Total Area of Irrigated Landscape: Insert Area (Acres)

Type of Landscaping (Conservation Design or Active Turf): List Landscaping Type

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for irrigation use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Insert Area (Acres)

Step 3: Cross reference the Design Storm depth for the project site (see Exhibit A of the WQMP Guidance Document) with the left column of Table 2-3 in Chapter 2 to determine the minimum area of Effective Irrigated Area per Tributary Impervious Area (EIATIA).

Enter your EIATIA factor: EIATIA Factor

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum irrigated area that would be required.

Minimum required irrigated area: Insert Area (Acres)

Step 5: Determine if harvesting stormwater runoff for irrigation use is feasible for the project by comparing the total area of irrigated landscape (Step 1) to the minimum required irrigated area (Step 4).

Minimum required irrigated area (Step 4)	Available Irrigated Landscape (Step 1)
Insert Area (Acres)	Insert Area (Acres)

Toilet Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for toilet flushing uses on your site:

Step 1: Identify the projected total number of daily toilet users during the wet season, and account for any periodic shut downs or other lapses in occupancy:

Projected Number of Daily Toilet Users: Number of daily Toilet Users

Project Type: Enter 'Residential', 'Commercial', 'Industrial' or 'Schools'

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for toilet use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Insert Area (Acres)

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-1 in Chapter 2 to determine the minimum number or toilet users per tributary impervious acre (TUTIA).

Enter your TUTIA factor: TUTIA Factor

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of toilet users that would be required.

Minimum number of toilet users: Required number of toilet users

Step 5: Determine if harvesting stormwater runoff for toilet flushing use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required Toilet Users (Step 4)	Projected number of toilet users (Step 1)
Insert Area (Acres)	Insert Area (Acres)

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? See Chapter 2 of the Guidance for further information. If yes, describe below. If no, write N/A.

Insert text here describing how each included Site Design BMP will be implemented.

Step 1: Identify the projected average daily non-potable demand, in gallons per day, during the wet season and accounting for any periodic shut downs or other lapses in occupancy or operation.

Average Daily Demand: Projected Average Daily Use (gpd)

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for the identified non-potable use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Insert Area (Acres)

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Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-3 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-3: Enter Value

Step 4: Multiply the unit value obtained from Step 4 by the total of impervious areas from Step 3 to develop the minimum number of gallons per day of non-potable use that would be required.

Minimum required use: Minimum use required (gpd)

Step 5: Determine if harvesting stormwater runoff for other non-potable use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required non-potable use (Step 4)	**Projected average daily use (Step 1)**
Minimum use required (gpd)	Projected Average Daily Use (gpd)

If Irrigation, Toilet and Other Use feasibility anticipated demands are less than the applicable minimum values, Harvest and Use BMPs are not required and you should proceed to utilize LID Bioretention and Biotreatment, unless a site-specific analysis has been completed that demonstrates technical infeasibility as noted in D.3 below.

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

Select one of the following:

■ LID Bioretention/Biotreatment BMPs will be used for some or all DMAs of the project as noted below in Section D.4 (note the requirements of Section 3.4.2 in the WQMP Guidance Document).

☐ A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5. If you plan to submit an analysis demonstrating the technical infeasibility of LID BMPs, request a pre-submittal meeting with the Copermittee to discuss this option. Proceed to Section E to document your alternative compliance measures.

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D.4 Feasibility Assessment Summaries

From the Infiltration, Harvest and Use, Bioretention and Biotreatment Sections above, complete Table D.2 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

Table D.2 LID Prioritization Summary Matrix

DMA Name/ID	LID BMP Hierarchy				No LID (Alternative Compliance)
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
DMA A	☐	☐	☒	☐	☐
DMA B	☐	☐	☒	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐

For those DMAs where LID BMPs are not feasible, provide a brief narrative below summarizing why they are not feasible, include your technical infeasibility criteria in Appendix 5, and proceed to Section E below to document Alternative Compliance measures for those DMAs. Recall that each proposed DMA must pass through the LID BMP hierarchy before alternative compliance measures may be considered.

Base on the information provided in Section D, bioretention LID BMP will be utilized for the entire site.

1. According to the Riverside County WQMP Guidance (attached in the next page) and the Soil Infiltration Study by NorCal Engineering (see Appendix 3), the recommended infiltration design rate is 0.5 in/hr (<1.6 in/hr), therefore these DMAs are not feasible for Infiltration BMP.

2. Reclaimed water will be used for the non-potable water demands for the project; therefore, Harvest and Use is not a required BMP.

3. Design infiltration rate is 0.5 in/hr which is less than 1.6 in/hr but more than 0.3 in/hr, so use Bioretention BMP.

See Appendix 1 Post-Construction BMP Site Map for bioretention basin detail.

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D.5 LID BMP Sizing

Each LID BMP must be designed to ensure that the Design Capture Volume will be addressed by the selected BMPs. First, calculate the Design Capture Volume for each LID BMP using the V_{BMP} worksheet in Appendix F of the LID BMP Design Handbook. Second, design the LID BMP to meet the required V_{BMP} using a method approved by the Copermittee. Utilize the worksheets found in the LID BMP Design Handbook or consult with your Copermittee to assist you in correctly sizing your LID BMPs. Complete Table D.3 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

Table D.3 DCV Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet) [A]	Post-Project Surface Type	Effective Impervious Fraction, I_f [B]	DMA Runoff Factor [C]	DMA Areas x Runoff Factor [A] x [C]	*Enter BMP Name / Identifier Here*		
						Design Storm Depth (in)	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
DMA A	*358,418*	*Mixed Surface Types*	*0.88*	*0.70*	*251,535*			
DMA B	*492,411*	*Mixed Surface Types*	*0.87*	*0.69*	*338,776*			
	$A_T = \Sigma[A]$ ***850,829***				Σ= [D] 590,311	[E] 0.63	$[F] = \frac{[D] \times [E]}{12}$ 30,991	[G] 32,272

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document

[E] is obtained from Exhibit A in the WQMP Guidance Document

[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

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Section E: Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Copermittee). Check one of the following Boxes:

■ LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- *Or* -

☐ The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Co-Permittee and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The following alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

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E.1 Identify Pollutants of Concern

Utilizing Table A.1 from Section A above which noted your project's receiving waters and their associated EPA approved 303(d) listed impairments, cross reference this information with that of your selected Priority Development Project Category in Table E.1 below. If the identified General Pollutant Categories are the same as those listed for your receiving waters, then these will be your Pollutants of Concern and the appropriate box or boxes will be checked on the last row. The purpose of this is to document compliance and to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs.

Table E.1 Potential Pollutants by Land Use Type

Priority Development Project Categories and/or Project Features (check those that apply)	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
☐ Detached Residential Development	P	N	P	P	N	P	P	P
☐ Attached Residential Development	P	N	P	P	N	P	P	P(2)
☒ Commercial/Industrial Development	P(3)	P	P(1)	P(1)	P(5)	P(1)	P	P
☐ Automotive Repair Shops	N	P	N	N	P(4, 5)	N	P	P
☐ Restaurants (>5,000 ft²)	P	N	N	N	N	N	P	P
☐ Hillside Development (>5,000 ft²)	P	N	P	P	N	P	P	P
☐ Parking Lots (>5,000 ft²)	P(6)	P	P(1)	P(1)	P(4)	P(1)	P	P
☐ Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	☒	☒	☒	☒	☒	☒	☒	☒

P = Potential

N = Not Potential

(1) A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected

(2) A potential Pollutant if the project includes uncovered parking areas; otherwise not expected

(3) A potential Pollutant is land use involving animal waste

(4) Specifically petroleum hydrocarbons

(5) Specifically solvents

(6) Bacterial indicators are routinely detected in pavement runoff

E.2 Stormwater Credits

Projects that cannot implement LID BMPs but nevertheless implement smart growth principles are potentially eligible for Stormwater Credits. Utilize Table 3-8 within the WQMP Guidance Document to identify your Project Category and its associated Water Quality Credit. If not applicable, write N/A.

Table E.2 Water Quality Credits

Qualifying Project Categories	Credit Percentage[2]
N/A	
Total Credit Percentage[1]	

[1]Cannot Exceed 50%
[2]Obtain corresponding data from Table 3-8 in the WQMP Guidance Document

E.3 Sizing Criteria

After you appropriately considered Stormwater Credits for your project, utilize Table E.3 below to appropriately size them to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.2 of the WQMP Guidance Document for further information.

Table E.3 Treatment Control BMP Sizing

DMA Type/ID	DMA Area (square feet) [A]	Post-Project Surface Type	Effective Impervious Fraction, I_f [B]	DMA Runoff Factor [C]	DMA Area x Runoff Factor [A] x [C]		*Enter BMP Name / Identifier Here*		
						Design Storm Depth (in)	*Minimum Design Capture Volume or Design Flow Rate (cubic feet or cfs)*	*Total Storm Water Credit % Reduction*	*Proposed Volume or Flow on Plans (cubic feet or cfs)*
	A_T = Σ[A]				Σ= [D]	[E]	$[F] = \frac{[D]x[E]}{[G]}$	[F] X (1-[H])	[I]

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12
[H] is from the Total Credit Percentage as Calculated from Table E.2 above
[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

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E.4 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- **High**: equal to or greater than 80% removal efficiency
- **Medium**: between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

Table E.4 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID[1]	Priority Pollutant(s) of Concern to Mitigate[2]	Removal Efficiency Percentage[3]
Bioretention Basin	Bacteria, Metals, Nutrients, Pesticides, Toxic Organic Compounds, Sediments, Trash & Debris, and Oil & Grease	High (per Riverside Flood Control LID BMP Design Handbook Appendix E, see Appendix 6).

[1] *Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.*
[2] *Cross Reference Table E.1 above to populate this column.*
[3] *As documented in a Co-Permittee Approved Study and provided in Appendix 6.*

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Section F: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

Once you have determined that the LID design is adequate to address water quality requirements, you will need to assess if the proposed LID Design may still create a HCOC. Review Chapters 2 and 3 (including Figure 3-7) of the WQMP Guidance Document to determine if your project must mitigate for Hydromodification impacts. If your project meets one of the following criteria which will be indicated by the check boxes below, you do not need to address Hydromodification at this time. However, if the project does not qualify for Exemptions 1, 2 or 3, then additional measures must be added to the design to comply with HCOC criteria. This is discussed in further detail below in Section F.2.

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The Copermittee has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply.

HCOC EXEMPTION 2: The volume and time of concentration[1] of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the Co-Permittee

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, report results in Table F.1 below and provide your substantiated hydrologic analysis in Appendix 7.

Table F.1 Hydrologic Conditions of Concern Summary

	2 year – 24 hour		
	Pre-condition	**Post-condition**	**% Difference**
Time of Concentration	INSERT VALUE	INSERT VALUE	INSERT VALUE
Volume (Cubic Feet)	INSERT VALUE	INSERT VALUE	INSERT VALUE

[1] Time of concentration is defined as the time after the beginning of the rainfall when all portions of the drainage basin are contributing to flow at the outlet.

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HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Sensitivity Maps.

Does the project qualify for this HCOC Exemption? ☒ Y ☐ N

If Yes, HCOC criteria do not apply and note below which adequate sump applies to this HCOC qualifier:

All the runoff from the project site will be directed to public storm drain in Indian Street and convey to Lake Elsinore, Santa Ana River, and then to Pacific Ocean.

F.2 HCOC Mitigation

If none of the above HCOC Exemption Criteria are applicable, HCOC criteria is considered mitigated if they meet one of the following conditions:

a. Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.

b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.

c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

Be sure to include all pertinent documentation used in your analysis of the items a, b or c in Appendix 7.

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Section G: Source Control BMPs

Source control BMPs include permanent, structural features that may be required in your project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and "housekeeping", that must be implemented by the site's occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. Using the Pollutant Sources/Source Control Checklist in Appendix 8, review the following procedure to specify Source Control BMPs for your site:

1. ***Identify Pollutant Sources*:** Review Column 1 in the Pollutant Sources/Source Control Checklist. Check off the potential sources of Pollutants that apply to your site.

2. ***Note Locations on Project-Specific WQMP Exhibit*:** Note the corresponding requirements listed in Column 2 of the Pollutant Sources/Source Control Checklist. Show the location of each Pollutant source and each permanent Source Control BMP in your Project-Specific WQMP Exhibit located in Appendix 1.

3. ***Prepare a Table and Narrative*:** Check off the corresponding requirements listed in Column 3 in the Pollutant Sources/Source Control Checklist. In the left column of Table G.1 below, list each potential source of runoff Pollutants on your site (from those that you checked in the Pollutant Sources/Source Control Checklist). In the middle column, list the corresponding permanent, Structural Source Control BMPs (from Columns 2 and 3 of the Pollutant Sources/Source Control Checklist) used to prevent Pollutants from entering runoff. **Add additional narrative** in this column that explains any special features, materials or methods of construction that will be used to implement these permanent, Structural Source Control BMPs.

4. ***Identify Operational Source Control BMPs:*** To complete your table, refer once again to the Pollutant Sources/Source Control Checklist. List in the right column of your table the Operational BMPs that should be implemented as long as the anticipated activities continue at the site. Copermittee stormwater ordinances require that applicable Source Control BMPs be implemented; the same BMPs may also be required as a condition of a use permit or other revocable Discretionary Approval for use of the site.

Table G.1 Permanent and Operational Source Control Measures

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
On-Site Storm Drain Inlet	Mark all inlets with the words "Only Rain Down the Storm Drain" or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call 951.955.1200 to verify.	• Maintain and periodically repaint or replace inlet markings. • Provide stormwater pollution prevention information to new site owners, lessees, or operators. • See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com • Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."

Loading Docks		• Move loaded and unloaded items indoors as soon as possible. See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
Fire Sprinkler Test Water		• Provide a means to drain fire sprinkler test water to the sanitary sewer.
Plazas, sidewalks, and parking lots.		• Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.

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Section H: Construction Plan Checklist

Information will be provided after the Conceptual Grading Plan gets approved.

Populate Table H.1 below to assist the plan checker in an expeditious review of your project. The first two columns will contain information that was prepared in previous steps, while the last column will be populated with the corresponding plan sheets. This table is to be completed with the submittal of your final Project-Specific WQMP.

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)

Note that the updated table — or Construction Plan WQMP Checklist — is **only a reference tool** to facilitate an easy comparison of the construction plans to your Project-Specific WQMP. Co-Permittee staff can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

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Section I: Operation, Maintenance and Funding

The Copermittee will periodically verify that Stormwater BMPs on your site are maintained and continue to operate as designed. To make this possible, your Copermittee will require that you include in Appendix 9 of this Project-Specific WQMP:

1. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred. A warranty covering a period following construction may also be required.
3. An outline of general maintenance requirements for the Stormwater BMPs you have selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility. Geo-locating the BMPs using a coordinate system of latitude and longitude is recommended to help facilitate a future statewide database system.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance. Include a brief description of typical landscape maintenance for these areas.

Your local Co-Permittee will also require that you prepare and submit a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built on your site. An agreement assigning responsibility for maintenance and providing for inspections and certification may also be required.

Details of these requirements and instructions for preparing a Stormwater BMP Operation and Maintenance Plan are in Chapter 5 of the WQMP Guidance Document.

Maintenance Mechanism: Insert text here describing how each included Site Design BMP will be implemented.

Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

☐ Y ☒ N

Include your Operation and Maintenance Plan and Maintenance Mechanism in Appendix 9. Additionally, include all pertinent forms of educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP in Appendix 10.

Appendix 1: Maps and Site Plans

Location Map, WQMP Site Plan and Receiving Waters Map

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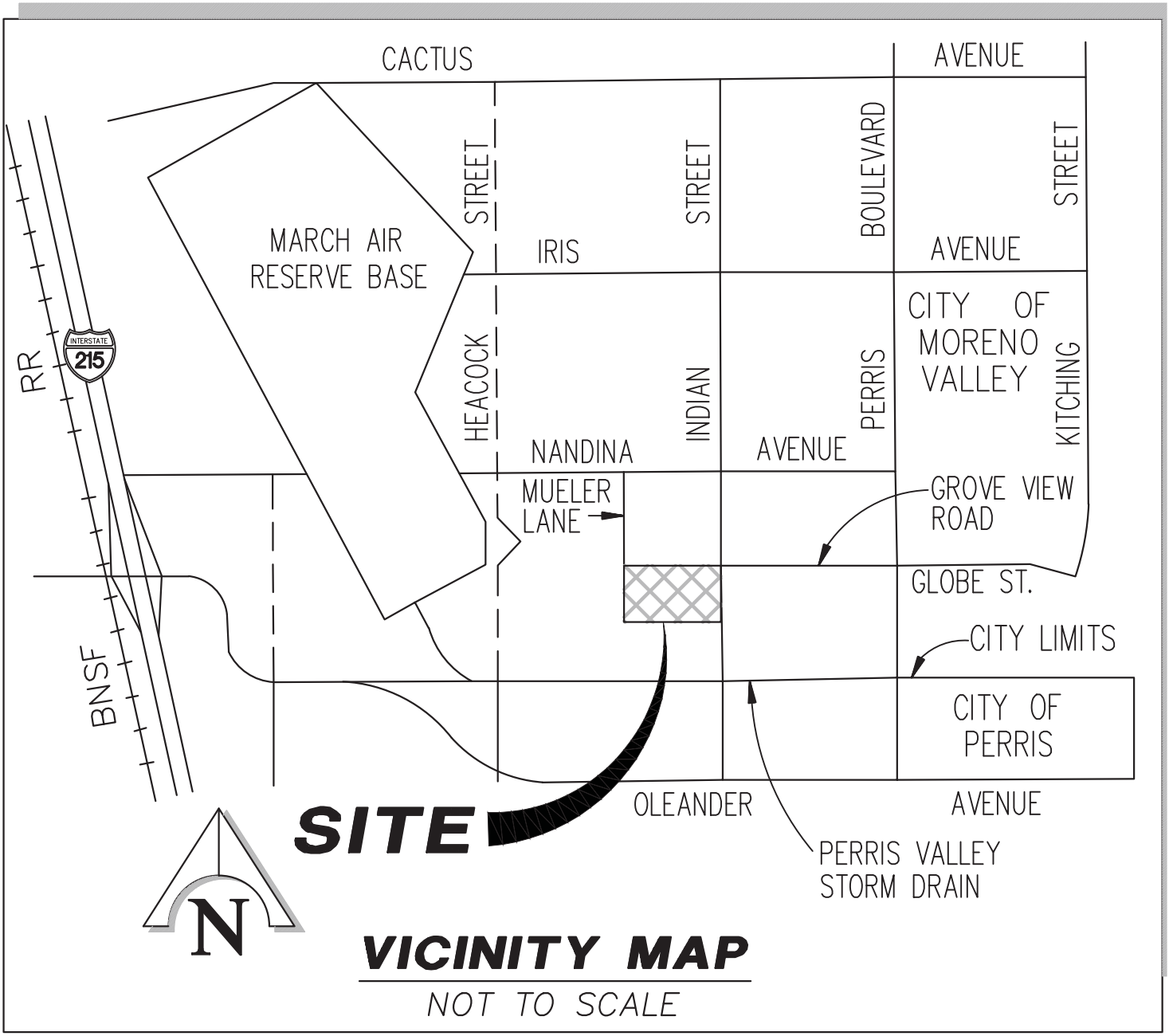

VICINITY MAP

NOT TO SCALE

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Receiving Waters Map
Moreno Valley Vogel Industrial
Legend
Moreno Valley Vogel
PROJECT SITE
PERRIS VALLEY STORM DRAIN
SAN JACINTO RIVER
CANYON LAKE
LAKE ELSINORE
Woodcrest
Cactus Ave
Perris Blvd
Alessandro Blvd
Iris Ave
Gilman Springs Rd
Beaumont
Alessandro Island
N Perris Blvd
Perris
San Jacinto
Homeland
Hemet
79
Corona Fr
McCall Blvd
Winchester
Menifee
Canyon Lake
Skippers Island
Newport Rd
Riverside Dr
Lake Elsinore
Wildomar
15
215
Murrieta
oogle earth
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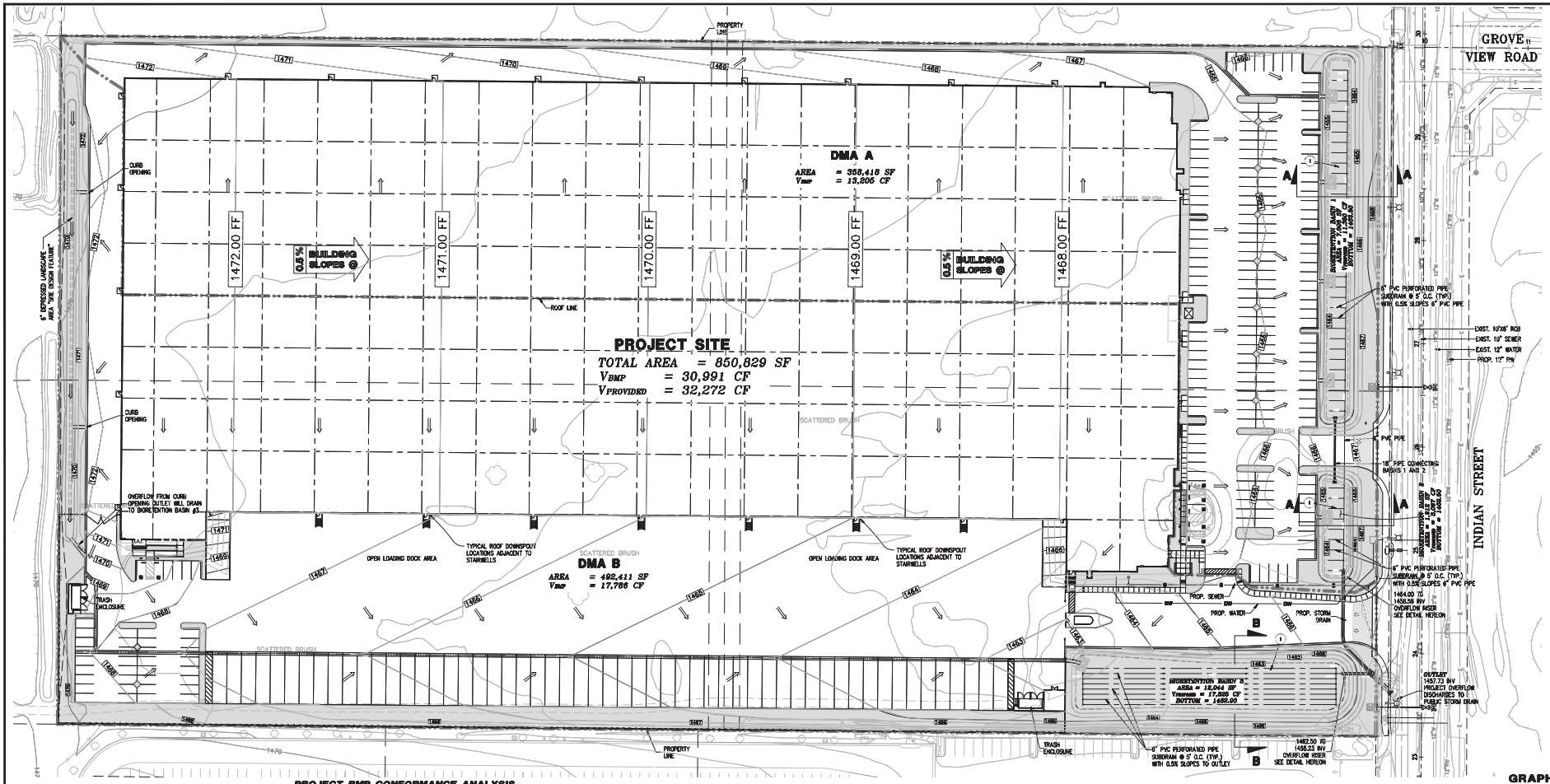


GRAPHIC SCALE

40 0 40 80 120
(IN FEET)
1" = 40'

WQMP BMP NOTES

(1) BIORETENTION BASIN, SEE DETAIL HEREON

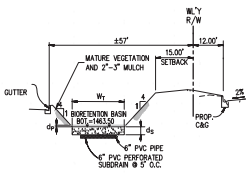
LEGEND

- SD — PROPOSED STORM DRAIN
- WQMP BOUNDARY
- PROPOSED CURB OPENING INLET W/ FILTER INSERT
- PROPOSED LANDSCAPING AREA
- CB CATCH BASIN
- TG TOP OF GRATE
- FLOW DIRECTION

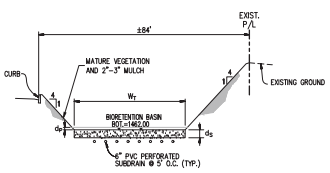
PROJECT BMP CONFORMANCE ANALYSIS

NAME	AREA (SF)	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	I	C	V_{BMP} (CF)	BMP	$A_{PROVIDE}$ (SF)	$V_{PROVIDE}$ (CF)
DMA A	358,418	315,832	42,586	0.88	0.70	13,205	*BIORETENTION BASIN 1 & 2	7,006+1,912 = 8,918	11,350+3,097 = 14,447
DMA B	492,411	428,102	64,309	0.87	0.69	17,786	BIORETENTION BASIN 3	12,044	17,825

*THE BIORETENTION BASIN 1 AND 2 ARE LINKED TOGETHER BY A 18" RCP



SECTION A-A (TYP.)
N.T.S.

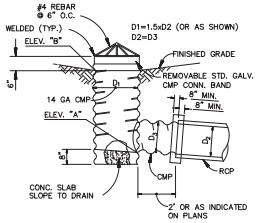


SECTION B-B
N.T.S.

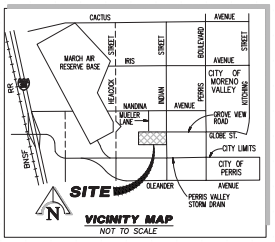
NAME	d_B (FT)	d_S (FT)	W_T (FT)	d_T (FT)	$A_{PROVIDE}$ (SF)	$V_{PROVIDE}$ (CF)
*BIORETENTION BASIN 1	0.50	2.5	20	1.62	7,006	11,350
*BIORETENTION BASIN 2	0.50	2.5	20	1.62	1,912	3,097
BIORETENTION BASIN 3	0.50	2.0	40	1.48	12,044	17,825

*THE BIORETENTION BASIN 1 AND 2 ARE LINKED TOGETHER BY A 18" RCP

BIORETENTION BASIN
N.T.S.



OVERFLOW RISER DETAIL
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

EFFECTIVE AREA

BUILDING AREA (SF)	PROJECT AREA (SF)	FAR = FLOOR AREA RATIO	EFFECTIVE AREA (%)	EFFECTIVE AREA FOR BMP (SF)		EFFECTIVE AREA PROVIDE (SF)
446,350	850,829	446,350/850,829 = 0.52	10%	85,083	<	106,895

PROJECT AREA BREAKDOWN

PROJECT TOTAL AREA:	850,829 SF
PROJECT ROOF AREA:	436,292 SF
PROJECT PAVEMENT AREA:	307,642 SF
PROJECT LANDSCAPE AREA:	106,895 SF

BENCH MARK	BASIS OF BEARING
E COUNTY FLOOD CONTROL BENCHMARK ON 1474.674 (NGVD29) ALUMINUM DISK STAMPED "RIV. CO. BENCHMARK OF APRIL 1996", FLUSH AT S.W. CORNER OF BRIDGE SIDEWALK NEAR FACE OF CURB LOCATED AT THE E OF PERRIS BLVD. AND R.C.F.C. CHANNEL (PERRIS 1) 93 FT WEST OF THE CENTERLINE OF PERRIS 45 FT EAST OF CONCRETE BRIDGE BARRIER	BEARINGS SHOWN HEREON ARE BASED ON THE BEARING BETWEEN CORS STATION PPXF AND CORS STATION MJFP BEING NORTH 5°37'37" WEST PER RECORDS ON FILE WITH THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC).

REGISTERED PROFESSIONAL ENGINEER MAURICE H. MURAD NO. 33366 EXPIRATION 6-30-2018 CIVIL STATE OF CALIFORNIA

HUITT-ZOLLARS
Huitt-Zollars, Inc. Ontario
3990 CONCOURS, SUITE 330 • ONTARIO, CALIFORNIA 91764 • (909) 941-7799
PREPARED UNDER THE SUPERVISION OF:
MAURICE H. MURAD
R.C.E. NO. 33366 EXP. 6/30/18
DATE

CITY OF MORENO VALLEY

WATER QUALITY MANAGEMENT PLAN
MORENO VALLEY VOGEL INDUSTRIAL

SHEET 1 NO. 1

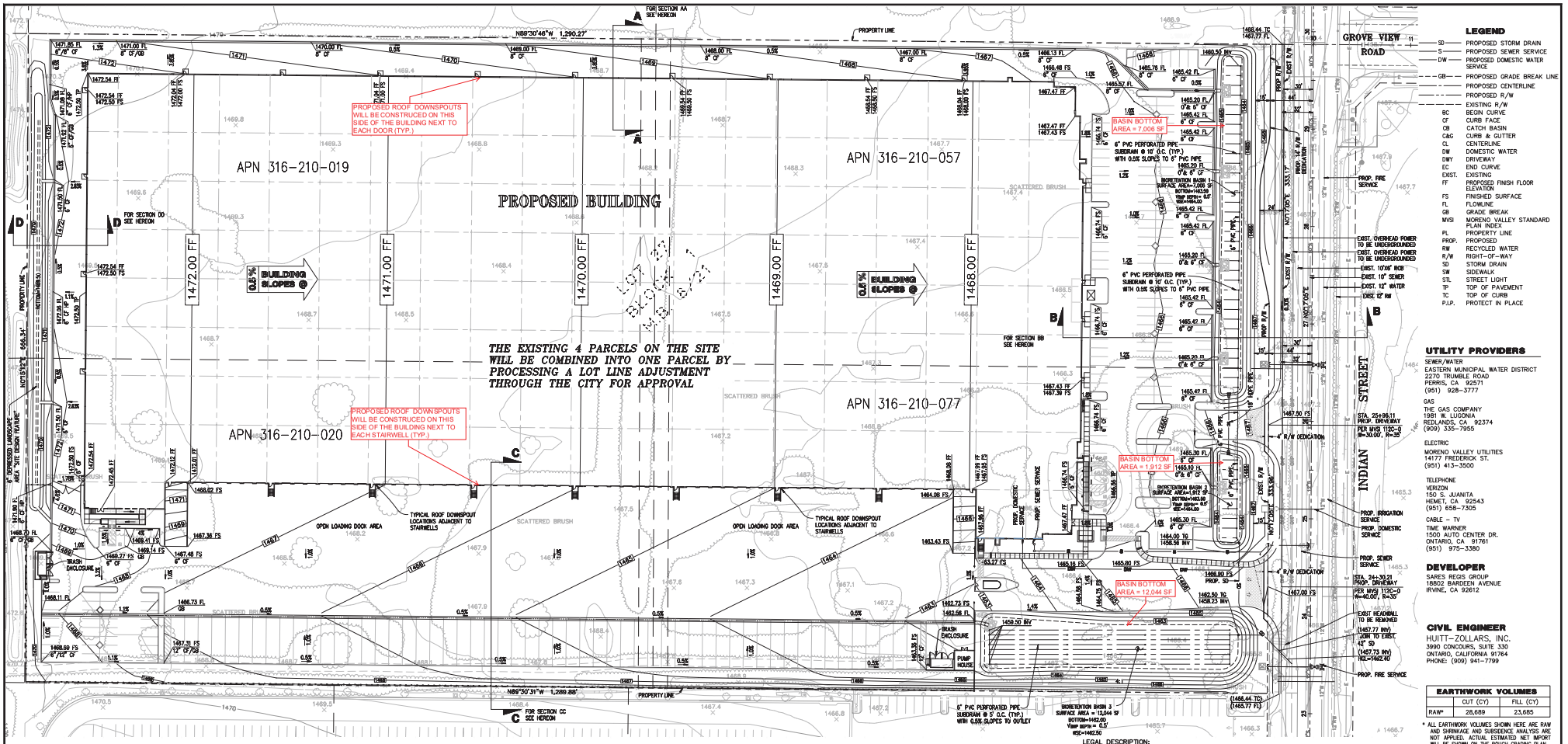
Attachment: Appendix C - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Appendix 2: Construction Plans

Conceptual Grading, Drainage and Utility Plan
Grading and Drainage Plans (In progress)

Construction Plans in progress and will be provided in the next submittal.

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



LEGEND

SD	PROPOSED STORM DRAIN
S	PROPOSED SEWER SERVICE
DW	PROPOSED DOMESTIC WATER SERVICE
GB	PROPOSED GRADE BREAK LINE
	PROPOSED CENTERLINE
	PROPOSED R/W
	EXISTING R/W
BC	BEGIN CURVE
CF	CURB FACE
CB	CATCH BASIN
C&G	CURB & GUTTER
CL	CENTERLINE
DW	DOMESTIC WATER
DWY	DRIVEWAY
EC	END CURVE
EXIST.	EXISTING
FF	PROPOSED FINISH FLOOR ELEVATION
FS	FINISHED SURFACE
FL	FLOWLINE
GB	GRADE BREAK
MVSI	MORENO VALLEY STANDARD PLAN INDEX
PL	PROPERTY LINE
PROP.	PROPOSED
RW	RECYCLED WATER
R/W	RIGHT-OF-WAY
SD	STORM DRAIN
SW	SIDEWALK
STL	STREET LIGHT
TP	TOP OF PAVEMENT
TC	TOP OF CURB
P.I.P.	PROTECT IN PLACE

UTILITY PROVIDERS

SEWER/WATER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD
PERRIS, CA 92571
(951) 928-3777

GAS
THE GAS COMPANY
1981 W. LUGONIA
REDLANDS, CA 92374
(909) 335-7955

ELECTRIC
MORENO VALLEY UTILITIES
14177 FREDERICK ST.
(951) 413-3500

TELEPHONE
VERIZON
150 S. JUANITA
HEMET, CA 92543
(951) 658-7305

CABLE - TV
TIME WARNER
1500 AUTO CENTER DR.
ONTARIO, CA 91761
(951) 975-3380

DEVELOPER

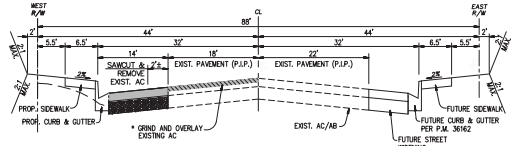
SARES REGIS GROUP
18802 BARDEEN AVENUE
IRVINE, CA 92612

CIVIL ENGINEER

HUITT-ZOLLARS, INC.
3990 CONCOURS, SUITE 330
ONTARIO, CALIFORNIA 91764
PHONE: (909) 941-7799

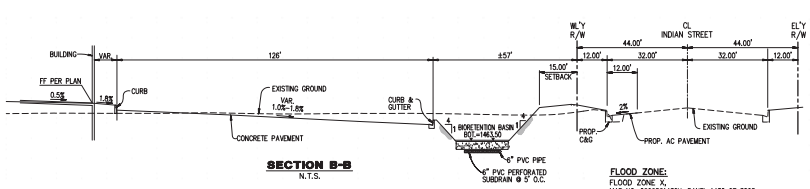
EARTHWORK VOLUMES		
	CUT (CY)	FILL (CY)
RAW*	28,689	23,685

* ALL EARTHWORK VOLUMES SHOWN HERE ARE RAW AND SHRINKAGE AND SUBSIDENCE ANALYSIS ARE NOT APPLIED. ACTUAL ESTIMATED NET IMPORT WILL BE SHOWN ON THE ROUGH GRADING PLAN

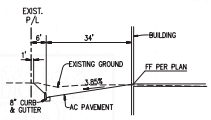


INDIAN STREET - TYPICAL SECTION
N.T.S.
(PER CITY OF MORENO VALLEY STD. NO. 105A)

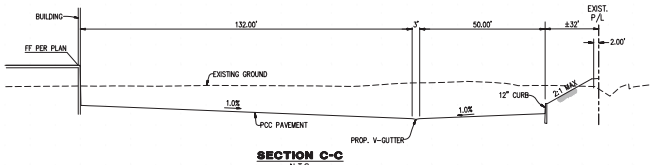
* CORE SAMPLES FOR EXISTING AC PAVEMENT IS REQUIRED



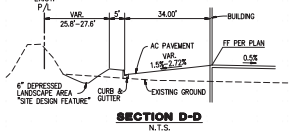
SECTION B-B
N.T.S.



SECTION A-A
N.T.S.



SECTION C-C
N.T.S.



SECTION D-D
N.T.S.

FLOOD ZONE:

FLOOD ZONE X,
MAP NO. 06065C1430H, PANEL 1430 OF 3805
EFFECTIVE DATE 8/18/2014

AREA

GROSS AREA = 19.64 ACRES

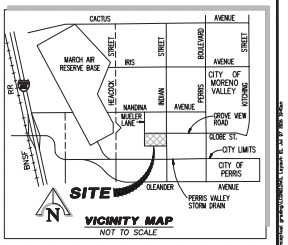
TOPO

SOURCE: R.J. (ROBERT J. LUNG AND ASSOCIATES)
DATE: 10-3-14

LEGAL DESCRIPTION:

PARCEL A: PARCEL 1:
THE SOUTH 1/2 OF THE WEST 1/2 OF LOT 27 IN BLOCK 10F RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
PARCEL 2:
A NON-EXCLUSIVE EASEMENT OVER THE NORTHERLY 10 FEET OF THE SOUTH 1/2 OF THE EAST 1/2 OF LOT 27 IN BLOCK 10F RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, FOR UTILITY PURPOSES.
APN: 316-210-020-5
PARCEL B:
THE NORTH HALF OF THE EAST HALF OF LOT 27, BLOCK 10F RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, FOR UTILITY PURPOSES.
EXCEPTING THEREFROM THE EAST 10.00 FEET THEREOF, CONVEYED TO THE MARCH JOINT POWERS AUTHORITY, A BODY POLITIC BY DEEDS RECORDED JULY 23, 2001, AS INSTRUMENT NOS. 2001-339027 AND 2001-339028, BOTH OF OFFICIAL RECORDS.
APN: 316-210-057-9
PARCEL C:
THE NORTH 1/2 OF THE WEST 1/2 OF LOT 27, BLOCK 10F RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
APN: 316-210-019-5
PARCEL D:
ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:
THE SOUTH HALF OF THE EAST HALF OF LOT 27, IN BLOCK 1 OF RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STAT OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE(S) 21 PF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
EXCEPTING THEREFROM THE EAST 10.00 FEET OF SAID LAND, AS CONVEYED TO THE MARCH JOINT POWERS AUTHORITY, A BODY POLITIC BY GRANT DEEDS RECORDED FEBRUARY 2, 2004, AS INSTRUMENT NOS. 2004-0074786, OF OFFICIAL RECORDS.
APN: 316-210-077-7

SCALE 1"=40'



VICINITY MAP
NOT TO SCALE

GRAPHIC SCALE

40 0 40 80 120
(IN FEET)
1"=40'

BENCH MARK	BASIS OF BEARING
E COUNTY FLOOD CONTROL BENCHMARK ON 1474.674 (NGVD29) UMINUM DISK STAMPED "R/V, CO. BENCHMARK" APRIL 1.990", FLUSH AT S.W. CORNER OF BRIDGE SIDEWALK NEAR FACE OF CURB LOCATED AT THE OF PERRIS BLVD. AND R.C.F.C. CHANNEL (PERRIS ") 93 FT WEST OF THE CENTERLINE OF PERRIS 4.5 FT EAST OF CONCRETE BRIDGE BARRIER	BEARINGS SHOWN HEREON ARE BASED ON THE BEARING BETWEEN CORS STATION PPBF AND CORS STATION MJFP BEING NORTH 5°37'15" WEST PER RECORDS ON FILE WITH THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC).

HUITT-ZOLLARS
Huitt-Zollars, Inc. Ontario
3990 CONCOURS, SUITE 330 • ONTARIO, CALIFORNIA 91764 • (909) 941-7799
PREPARED UNDER THE SUPERVISION OF:
MAURICE H. MURAD
R.C.E. NO. 33366 EXP. 6/30/18
DATE

CITY OF MORENO VALLEY

CONCEPTUAL GRADING , DRAINAGE AND UTILITY PLAN
SARES REGIS MORENO VALLEY INDUSTRIAL
PA 16-0002

SHEET 1 NO. 1

Attachment: Appendix C - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

LGC Geotechnical, Inc.

January 11, 2015 Project No. 15208-01

Mr. Patrick Russel
Sares-Regis
18802 Bardeen Avenue
Irvine, CA 92612-1521

Subject: ***Geotechnical Summary and Recommendations Report for the Proposed Warehouse Development Located at the Southwest Corner of Indian Street and Grove View Road, City of Moreno Valley, California***

In accordance with your request, LGC Geotechnical, Inc. has prepared this geotechnical summary and recommendations report for the proposed warehouse development located at the southwest corner of Indian Street and Grove View Road in the City of Moreno Valley, California. This report summarizes our findings, conclusions, and preliminary geotechnical design recommendations relative to the proposed development.

Should you have any questions regarding this report, please do not hesitate to contact our office. We appreciate this opportunity to be of service.

Respectfully,

LGC Geotechnical, Inc.







Tim Lawson, GE 2626, CEG 1821

KAD/TJL/aca

Distribution: (4) Addressee (3 wet signed copies and 1 electronic)

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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1.3 Proposed Development....1

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Appendices

Appendix A – References
Appendix B – Boring and Test Pit Logs
Appendix C – Laboratory Test Results
Appendix D – General Earthwork and Grading Specifications

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

1.0 INTRODUCTION

LGC Geotechnical has prepared this geotechnical summary and recommendations report for the proposed warehouse development located at the southwest corner of Indian Avenue and Grove View Road, in the City of Moreno Valley, California (Figure 1). This report is based on our review of the available geotechnical reports by NorCal Engineering (2014a & 2014b), readily available published literature, and a site visit completed on December 23, 2015. This report summarizes our findings, conclusions, and preliminary geotechnical design recommendations relative to the proposed development.

1.1 Site Description

The approximately 20 acre rectangular shaped site is located on the southwest corner of Indian Street and Grove View Road. The project site is bounded to the north and west by vacant land, to the east by Indian Street, and to the south by an existing tilt-up building with associated improvements. The site is currently vacant with low vegetation and some trees in the western portion of the property. A north trending dirt/gravel road splits the property into an east and west half while another dirt/gravel road borders and parallels the southern property line. The project site is relatively level with sheet flow generally directed to the southeast.

1.2 Background

Historical aerial photographs show that the project site was previously used for farming as far back as the 1960's. Sometime during the late 1960's or early 1970's, three small structures were constructed on the eastern portion of the property. Around 2008-2009 the buildings were demolished, and it appears that the land has remained vacant ever since.

1.3 Proposed Development

According to the Conceptual Site Plan prepared by Herdman Rierson Architecture and Design (2015), the proposed development will include construction of a new concrete tilt-up 433,951 square feet warehouse/distribution building. In addition, a parking area is planned along the eastern side and a truck docking/trailer parking area is planned along the southern side of the warehouse. Approximately 3 bioretention basins are proposed for the eastern portion of the site adjacent to the parking areas.

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

2.0 SITE CONDITIONS

2.1 Regional Geology

The property is regionally located in the Peninsular Ranges geomorphic province which extends from the Los Angeles Basin south to Baja California. The province is characterized by numerous southeast trending mountain ranges and valleys that are geologically controlled by a series of major active faults. More specifically, the site is located in the northern portion of the Perris block which is bordered to the northeast by the San Jacinto Fault Zone and to the southwest by the Chino/Elsinore Fault Zone.

2.2 Site-Specific Geology

The site is situated on an alluvial flood plain near the western edge of the Moreno Valley. Based on the Geologic Map of the 7.5' Perris Quadrangle (CGS, 2003) the site is underlain by Very Old Alluvial Fan Deposits of the late Pleistocene. These materials generally form the large area flanking the Perris Valley and the west side of the San Jacinto River Valley.

A subsurface investigation performed by Norcal (2014b) consisted of two exploratory hollow stem auger borings with 6-inch outside diameter continuous flight augers and seventeen exploratory test pits by backhoe. Borings were excavated to a maximum depth of 51.5 feet below current ground elevations and backhoe excavations extended to a maximum depth of approximately 16 feet. Logs for the borings and exploratory test pits are included in Appendix B. Descriptions of the soils encountered onsite during the subsurface investigation are presented below.

2.2.1 Disturbed Topsoils/Artificial Fill

The upper approximately 1 to 2 feet of soil across the site consists of disturbed topsoils and minor amounts of artificial fill soils. In general, the soils are classified as sandy, clayey silt with some gravel. Rootlets and minor debris were encountered in isolated areas to depths up to approximately 2 feet below existing surface. These soils were noted to be soft and damp (NorCal, 2014b) at the time they were encountered.

2.2.2 Quaternary Very Old Alluviall Fan Deposits

In general, the very old alluvial deposits consist of sandy, clayey silts. These soils were noted to be medium stiff to stiff and damp to moist. Sand, silt, and clay content varied slightly with the depth of exploration (NorCal, 2014b).

2.3 Groundwater Levels

Groundwater was not encountered to the maximum explored depth of approximately 51.5 feet below existing grade during the subsurface evaluation performed by NorCal Engineering (2014). Based upon nearby groundwater well data as researched on California department of water resources database http://www.water.ca.gov/waterdatalibrary/, historic high groundwater in the vicinity is on the order of 30 feet below ground surface.

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Seasonal fluctuations of groundwater elevations should be expected over time. In general, groundwater levels fluctuate with the seasons and local zones of perched groundwater may be present due to local seepage caused by irrigation and/or recent precipitation. Local perched groundwater conditions or surface seepage may develop once site development is completed.

2.4 Seismicity

The site seismic characteristics were evaluated per the guidelines set forth in Chapter 16, Section 1613 of the 2013 California Building Code (CBC). Representative site coordinates of latitude 33.861822 degrees and longitude -117.236989 degrees were utilized in our analyses. The maximum considered earthquake (MCE) spectral response accelerations (S_{MS} and S_{M1}) and adjusted design spectral response acceleration parameters (S_{DS} and S_{D1}) for Site Class D are provided in Table 1 below.

TABLE 1

Seismic Design Parameters

Selected Parameters from 2013 CBC, Section 1613 - Earthquake Loads	**Seismic Design Values**
Site Class per Chapter 20 of ASCE 7	D
Risk-Targeted Spectral Acceleration for Short Periods (S_S)*	1.500g
Risk-Targeted Spectral Accelerations for 1-Second Periods (S_1)*	0.600g
Site Coefficient F_a per Table 1613.3.3(1)	1.000
Site Coefficient F_v per Table 1613.3.3(2)	1.500
Site Modified Spectral Acceleration for Short Periods (S_{MS}) for Site Class C [Note: $S_{MS} = F_aS_S$]	1.500g
Site Modified Spectral Acceleration for 1-Second Periods (S_{M1}) for Site Class C [Note: $S_{M1} = F_vS_1$]	0.900g
Design Spectral Acceleration for Short Periods (S_{DS}) for Site Class C [Note: $S_{DS} = (^2/_3)S_{MS}$]	1.000g
Design Spectral Acceleration for 1-Second Periods (S_{D1}) for Site Class C [Note: $S_{D1} = (^2/_3)S_{M1}$]	0.600g
Mapped Risk Coefficient at 0.2 sec Spectral Response Period, C_{RS} (per ASCE 7)	1.062
Mapped Risk Coefficient at 1 sec Spectral Response Period, C_{R1} (per ASCE 7)	1.029

* From USGS, 2015

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Section 1803.5.12 of the 2013 CBC (per Section 11.8.3 of ASCE 7) states that the maximum considered earthquake geometric mean (MCE_G) Peak Ground Acceleration (PGA) should be used for geotechnical evaluations such as liquefaction potential. The PGA_M for the site is equal to 0.5g (USGS, 2015).

A deaggregation of the PGA based on a 2,475-year average return period indicates that an earthquake magnitude of 7.58 at a distance of approximately 12.5 km from the site would contribute the most to this ground motion (USGS, 2008).

2.5 Faulting

California is located on the boundary between the Pacific and North American Lithospheric Plates. The average motion along this boundary is on the order of 50-mm/yr in a right-lateral sense. The majority of the motion is expressed at the surface along the northwest trending San Andreas Fault Zone with lesser amounts of motion accommodated by sub-parallel faults located predominantly west of the San Andreas including the Elsinore, Newport-Inglewood, Rose Canyon, and Coronado Bank Faults. Within Southern California, a large bend in the San Andreas Fault north of the San Gabriel Mountains has resulted in a transfer of a portion of the right-lateral motion between the plates into left-lateral displacement and vertical uplift. Compression south and west of the bend has resulted in folding, left-lateral, reverse thrust faulting, and regional uplift creating the east-west trending Transverse Ranges and several east-west trending faults. Further south within the Los Angeles Basin, “blind thrust” faults are believed to have developed below the surface also as a result of this compression, which have resulted in earthquakes such as the 1994 Northridge event along faults with little to no surface expression.

Prompted by damaging earthquakes in Northern and Southern California, State legislation and policies concerning the classification and land-use criteria associated with faults have been developed. Their purpose was to prevent the construction of urban developments across the trace of active faults. The result is the Alquist-Priolo Earthquake Fault Zoning Act, which was most recently revised in 1997 (Hart, 1997). According to the State Geologist, an active fault is defined as one, which has had surface displacement within the Holocene Epoch (roughly the last 11,000 years). A potentially active fault is defined as any fault, which has had surface displacement during Quaternary time (last 1,600,000 years), but not within the Holocene. Earthquake Fault Zones have been delineated along the traces of active faults within California. Where developments for human occupation are proposed within these zones, the state requires detailed fault investigations be performed so that engineering geologists can mitigate the hazards associated with active faulting by identifying the location of active faults and allowing for a setback from the zone of previous ground rupture.

The subject site is not located within an Alquist-Priolo Earthquake Fault Zone and no faults were identified on the site during our site evaluation. The possibility of damage due to ground rupture is considered low since no active faults are known to cross the site.

Secondary effects of seismic shaking resulting from large earthquakes on the major faults in the Southern California region, which may affect the site, include ground lurching and shallow ground rupture, soil liquefaction, dynamic settlement, seiches, and tsunamis. These secondary effects of seismic shaking are a possibility throughout the Southern California region and are dependant on the distance between the site and causative fault and the onsite geology. The closest major active faults that could produce these secondary effects are associated with the Chino/Elsinore Fault Zone and San Jacinto Fault Zone. A discussion of these secondary effects is provided in the following sections.

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2.5.1 Liquefaction and Dynamic Settlement

Liquefaction is a seismic phenomenon in which loose, saturated, granular soils behave similarly to a fluid when subject to high-intensity ground shaking. Liquefaction occurs when three general conditions coexist: 1) shallow groundwater; 2) low density non-cohesive (granular) soils; and 3) high-intensity ground motion. Studies indicate that saturated, loose to medium dense, near-surface cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless soils and cohesive soils exhibit low to negligible liquefaction potential. In general, cohesive soils are not considered susceptible to liquefaction, depending on their plasticity and moisture content (Bray & Sancio, 2006). Effects of liquefaction on level ground include settlement, sand boils, and bearing capacity failures below structures. Dynamic settlement of dry loose sands can occur as the sand particles tend to settle and densify as a result of a seismic event.

The site is mapped by the County of Riverside as having a "Low" to "Moderate" potential for liquefaction (RCTLMA, 2014). Based on our review of the data provided by Norcal, we concur with their findings that liquefaction potential is very low, and seismically induced settlement as a result of a major earthquake is on the order of 1 to 2 inches across the site. Differential seismically induced ground settlement once the site has been properly developed is estimated to be on the order of one-half inch vertically in 40 feet horizontally.

2.5.2 Lateral Spreading

Lateral spreading is a type of liquefaction induced ground failure associated with the lateral displacement of surficial blocks of sediment resulting from liquefaction in a subsurface layer. Once liquefaction transforms the subsurface layer into a fluid mass, gravity plus the earthquake inertial forces may cause the mass to move downslope towards a free face (such as a river channel or an embankment). Lateral spreading may cause large horizontal displacements and such movement typically damages pipelines, utilities, bridges, and structures.

The potential for lateral spreading is considered very low due to the site being relatively level and the lack of an adjacent free face to drive lateral spreading.

2.6 Infiltration Testing

Onsite infiltration testing was performed by NorCal Engineering utilizing the double ring infiltration test method per ASTM D3385. Testing was performed in seven locations with depths ranging from approximately 2 to 6 feet below existing ground surface. The infiltration results are provided in Table 2 below.

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TABLE 2

Summary of Field Infiltration Testing (NorCal, 2014a)

Boring/Infiltration Location	Approx. Depth Below EG (ft)	Soil Type	Infiltration Rate		Design Rate
			cm/hr	in/hr	
Area 1, T-1	2	sandy, clayey SILT	1.7	0.68	0.5
Area 1, T-2	2	sandy, clayey SILT	0.9	0.35	
Area 2, T-3	6	sandy, clayey SILT	0.4	0.15	0.5
Area 2, T-4	6	sandy, clayey SILT	2.1	0.85	
Area 3, T-5	6	sandy, clayey SILT	0.3	0.12	0.15
Area 3, T-6	6	sandy, clayey SILT	0.2	0.08	
Area 3, T-6	6	sandy, clayey SILT	0.6	0.24	

Please note that the design rates provided by NorCal Engineering (2014a) do not include the minimum factor of safety of 3 set forth by Appendix A of the Riverside County – Low Impact Development BMP Design Handbook (2011). In addition, the project engineer should apply any additional factors of safety they deem appropriate when designing any onsite infiltration systems.

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3.0 CONCLUSIONS

Based on the results of our geotechnical review of the previous geotechnical reports and conceptual site plan, it is our opinion that the proposed development is feasible from a geotechnical standpoint, provided that the recommendations contained in the following sections are incorporated during site grading and construction. A summary of our geotechnical conclusions are as follows:

- The site is underlain by very old alluvial fan deposits which is covered by topsoil and minor amounts of artificial fill soils to depths of approximately 1 to 2 feet below existing ground.
- Groundwater was not encountered during previous subsurface investigations and is unlikely to be encountered during site grading and construction.
- The main seismic hazard that may affect the site is ground shaking from one of the active regional faults. The subject site will likely experience strong seismic ground shaking during its design life. Section 1803.5.12 of the 2013 CBC (per Section 11.8.3 of ASCE 7) states that the maximum considered earthquake geometric mean (MCE_G) Peak Ground Acceleration (PGA) should be used for geotechnical evaluations such as liquefaction potential. The PGA_M for the site is equal to 0.5g (USGS, 2013).
- Based on the proposed development, the site will predominately consist of compacted fill over dense older alluvium. Therefore, the potential for post construction liquefaction and liquefaction-induced dynamic settlement is considered low.
- Tested infiltration rates are considered low which is in congruence with what would be anticipated for the soil types encountered. Please note that the design rates provided by NorCal Engineering (2014a) do not include the minimum factor of safety of 3 set forth by Appendix A of the Riverside County – Low Impact Development BMP Design Handbook (2011). In addition, the project engineer should apply any additional factors of safety they deem appropriate when designing any onsite infiltration systems.
- Based on preliminary laboratory test results, the onsite soils are anticipated to have a Low expansion potential. Final design expansion potential must be determined at the completion of grading. Mitigation measures are required for planned foundations and site improvements, such as concrete flatwork, to minimize the impacts of expansive soils.

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4.0 PRELIMINARY RECOMMENDATIONS

The following recommendations are to be considered preliminary, and should be confirmed upon the completion of grading and earthwork operations. In addition, they should be considered minimal from a geotechnical viewpoint, as there may be more restrictive requirements from the architect, structural engineer, building codes, governing agencies, and/or the owner.

It should be noted that the following geotechnical recommendations are intended to provide sufficient information to develop the site in general accordance with the 2013 CBC requirements. With regard to the possible occurrence of potentially catastrophic geotechnical hazards such as fault rupture, earthquake-induced landslides, liquefaction, etc. the following geotechnical recommendations should provide adequate protection for the proposed development to the extent required to reduce seismic risk to an "acceptable level." The "acceptable level" of risk is defined by the California Code of Regulations as "that level that provides reasonable protection of the public safety, though it does not necessarily ensure continued structural integrity and functionality of the project" [Section 3721(a)]. Therefore, repair and remedial work of the proposed improvement may be required after a significant seismic event. With regards to the potential for less significant geologic hazards to the proposed development, the recommendations contained herein are intended as a reasonable protection against the potential damaging effects of geotechnical phenomena such as expansive soils, fill settlement, groundwater seepage, etc. It should be understood, however, that our recommendations are intended to maintain the structural integrity of the proposed development and structures given the site geotechnical conditions, but cannot preclude the potential for some cosmetic distress or nuisance issues to develop as a result of the site geotechnical conditions.

The geotechnical recommendations contained herein must be confirmed to be suitable or modified based on the actual as-graded conditions.

4.1 Site Earthwork

We anticipate that earthwork at the site will consist of the completion of rough grading followed by the construction of retaining walls, utilities, foundations, and parking lot improvements. We recommend that earthwork onsite be performed in accordance with the following recommendations, 2013 CBC requirements, and the General Earthwork and Grading Specifications for Rough Grading included in Appendix D. In case of conflict, the following recommendations shall supersede all previous recommendations and those included as part of Appendix D. The following recommendations should be considered preliminary and may be revised by the geotechnical consultant based on the actual conditions encountered during site grading.

4.1.1 Site Preparation

Prior to grading, the areas to be developed should be stripped of any vegetation and cleared of all debris. Vegetation and debris should be removed and properly disposed of offsite. It is our understanding that the larger trees located in the western portion of the site will be removed prior to grading. We recommend that the roots of any such trees be removed in their entirety. Holes resulting from the removal of buried obstructions or trees, which extend below proposed removal bottoms, should be replaced with properly compacted fill material.

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4.1.2 Removal and Over-Excavation Depths

All unsuitable compressible materials not removed by design cuts should be excavated to competent material and replaced with compacted fill soils. In general, existing artificial fill, topsoil, and weathered very old alluvial fan deposits should be removed to competent dense old alluvial deposits. For planning purposes, in building areas removals should extend to a minimum depth of 2 feet below design footings, or 2 feet below existing grade, which ever is greater. Since a detailed cut/fill map was not available to us at the time of our review we cannot provide an accurate determination of which of these two recommendations governs in the area of the proposed structure. However, it would appear that based on design grades this will result in an average removal of approximately 4.5 feet below existing grades. The removals should extend laterally approximately 5 feet outside of the proposed building footprint.

Proposed pavement areas should be over-excavated a minimum of 2 feet below design subgrade and be replaced by compacted fill. Over-excavations should extend laterally a minimum of 2 feet outside of the proposed improvement footprint.

Local conditions may be encountered which could require additional removals beyond the estimated depths depicted. The actual depth and lateral extents of removals should be determined by the geotechnical consultant based on subsurface conditions encountered during grading.

4.1.3 Temporary Excavations

We anticipate temporary slopes required for removals, over-excavations and haul roads to be grossly stable at 1.5:1 (horizontal: vertical) or flatter; however, excavations must be made in accordance with Cal OSHA and OSHA requirements. Vehicular traffic, stockpiles, and equipment storage should be set back from the perimeter of the excavations a minimum distance equivalent to a 1:1 projection from the bottom of the excavation.

The contractor must request observation of temporary excavations by a representative of LGC Geotechnical, not only to confirm the geotechnical conditions, but to also help provide early warning of potential failures. Based on observed conditions, flatter inclinations may be required. The majority of site soils are anticipated to be OSHA Type “B” soils. The contractor will be responsible for providing the “competent person” required by Cal/OSHA standards to evaluate soil conditions. Close coordination with the geotechnical consultant should be maintained to facilitate construction while providing safe excavations. Excavation safety is the sole responsibility of the contractor.

Once an excavation has been initiated, it should be backfilled as soon as practical. Prolonged exposure of temporary excavations may result in some localized instability. Excavations should be planned so that they are not initiated without sufficient time to shore/fill them prior to weekends, holidays, or forecasted rain.

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4.1.4 Subgrade Preparation

In general, over-excavation and removal bottom areas should be scarified to a minimum depth of 6 to 8 inches, brought to a near-optimum moisture condition, and re-compacted per project recommendations. Over-excavation and removal bottoms should be observed and accepted by the geotechnical consultant prior to subsequent fill placement.

4.1.5 Material for Fill

From a geotechnical perspective, the onsite soils are generally considered suitable for use as compacted fill, provided they are screened of organic materials and construction debris. Any oversized material (material larger than 8 inches in maximum dimension) encountered must be appropriately handled as outlined in Appendix D.

Retaining wall backfill should consist of granular free draining soils with a maximum of 35 percent fines (passing the No. 200 sieve) per American Society for Testing and Materials (ASTM) Test Method D1140 (or ASTM D6913/D422) and a "Very Low" expansion potential (EI of 20 or less per ASTM D4829). Soils should also be screened of organic materials, construction debris and any material greater than 3 inches. The site contains soils that are not suitable for retaining wall backfill due to their clay content and expansion potential, therefore import or select grading and stockpiling of onsite soils will be required by the contractor for obtaining suitable retaining wall backfill soil. The contractor should anticipate the importing of soils for the required retaining wall backfill.

From a geotechnical viewpoint, any required import soils (except retaining wall backfill) should consist of clean, relatively granular soils of Very Low to Low expansion potential (expansion index 50 or less based on ASTM D4829) and no particles larger than 3 inches in greatest dimension. Required import for retaining wall backfill should meet the criteria outlined in the paragraph above. Source samples of planned importation should be provided to the geotechnical consultant for laboratory testing a minimum of 3 working days prior to any planned importation.

Aggregate base (crushed aggregate base or crushed miscellaneous base) should conform to the requirements of Section 200-2 of the Standard Specifications for Public Works Construction ("Greenbook") for untreated base materials (except processed miscellaneous base) or Caltrans Class 2 aggregate base.

4.1.6 Fill Placement and Compaction

Material to be placed as fill should be brought to near optimum moisture content (generally within optimum and 2 percent above optimum moisture content) and recompacted to at least 90 percent relative compaction (per ASTM D1557). Moisture conditioning of site soils will be required in order to achieve adequate compaction. The optimum lift thickness to produce a uniformly compacted fill will depend on the type and size of compaction equipment used. In general, fill should be placed in uniform lifts not exceeding 8 inches in compacted thickness. Each lift should be thoroughly compacted and accepted prior to subsequent lifts. Generally, placement and compaction of fill should be performed in accordance with local grading

ordinances and under the observation and testing performed by the geotechnical consultant. Any oversized material, as previously defined, encountered must be appropriately handled (Appendix D).

Aggregate base material (crushed aggregate base and crushed miscellaneous base) should be compacted to a minimum of 95 percent relative compaction at or slightly above optimum moisture content per ASTM D1557. Subgrade below aggregate base should be compacted to a minimum of 90 percent relative compaction at or slightly above optimum moisture content per ASTM D1557.

4.1.7 Shrinkage and Subsidence

For earthwork volume estimating purposes, an average shrinkage of 10 percent may be assumed for the approximate upper 4 feet of the site soils. It should be stressed that these values are only estimates and that an actual shrinkage factors would be extremely difficult to predetermine. These values are estimates only and exclude losses due to removal of vegetation or debris. The effective shrinkage of onsite soils will depend primarily on the type of compaction equipment and method of compaction used onsite by the contractor and accuracy of the initial topographic survey. Contingencies should be made for balancing earthwork quantities based on actual shrinkage that occurs during grading.

Subsidence is the settlement of in-place subgrade soils caused by loads generated by large earthmoving equipment, or the settlement of native material due to the imposed load of new fills. Subsidence at the site is considered “negligible” due to the shallow fills assumed for site development.

4.1.8 Trench and Retaining Wall Backfill and Compaction

The onsite soils may generally be suitable as trench backfill, provided the soils are screened of rocks and other material greater than 6 inches in diameter and organic matter. If trenches are shallow or the use of conventional equipment may result in damage to the utilities, free draining sand having a sand equivalent (SE) of 30 or greater (per California Test Method [CTM] 217) may be used to bed and shade the pipes. Sand backfill within the pipe bedding zone may be densified by jetting or flooding and then tamped to ensure adequate compaction. Subsequent trench backfill should be compacted in uniform thin lifts by mechanical means to at least the recommended minimum relative compaction (per ASTM D1557).

Retaining wall backfill should consist of sandy soils as outlined in the previous Section 4.1.5. The limits of select sandy backfill should extend a minimum ½ the height of the retaining wall or the width of the heel (if applicable), whichever is greater, refer to Figure 2 (rear of text). Retaining wall backfill soils should be compacted in relatively uniform thin lifts to at least 90 percent relative compaction (per ASTM D1557). Jetting or flooding of retaining wall backfill materials should not be permitted.

A representative from LGC Geotechnical should observe and test the backfill to verify compliance with the project recommendations.

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4.2 Provisional Foundation Recommendations

The proposed structure may be supported on spread or continuous footings, provided the soils are prepared in accordance with the recommendations given in this report. All footings should be supported on properly compacted fill.

The foundation design must be performed by the structural engineer based on the following geotechnical parameters and minimum values provided.

4.2.1 Foundation Design Parameters

Spread and continuous footings may be designed with a maximum net allowable soil bearing pressure of 2,500 pounds per square foot (psf). These allowable bearing pressures are applicable for level ground (slope equal to or flatter than 5:1) conditions only. Bearing values indicated are for total dead and frequently applied live loads and may be increased by ⅓ for short duration loading (i.e., wind or seismic loads).

Minimum wall and column footing widths are to be 14 inches and 24 inches, respectively. It is recommended that a minimum of two No. 5 rebars be placed in the top and bottom (4 total) of strip footings in order to provide longitudinal reinforcement.

Minimum foundation embedment is to extend a minimum 12 inches into suitable compacted fill soils and at least 24 inches below the adjacent exterior grade. Interior column footings may be placed 12 inches beneath the floor slab.

In addition, it is recommended that the perimeter building foundations be continuous across all exterior doorways to reduce moisture migration beneath the slab. Any adjoining hardscape should be doweled into the perimeter foundations in a manner acceptable to the structural engineer.

4.2.2 Foundation Construction

The foundation is to be excavated into competent compacted artificial fill placed during grading operations. It is recommended that the foundation subgrade soils be evaluated by the geotechnical engineer prior to steel and/or concrete placement.

It is recommended that subgrade soils be moisture conditioned in order to maintain the recommended moisture content up to the time of concrete placement. The recommended moisture should be approximately at 4 percent above optimum moisture content to a minimum depth of 12 inches. In addition, this moisture content should be maintained around the immediate perimeter of the slab during construction and up to occupancy of the building structures.

The geotechnical parameters provided herein assume that if the areas adjacent to the foundation are planted and irrigated, these areas will be designed with proper drainage and adequately maintained so that ponding, which causes significant moisture changes below the foundation, does not occur. Our recommendations do not account for excessive irrigation

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and/or incorrect landscape design. Plants should only be provided with sufficient irrigation for life and not overwatered to saturate subgrade soils. Sunken planters placed adjacent to the foundation should either be designed with an efficient drainage system or liners to prevent moisture infiltration below the foundation.

4.2.3 Slab Design and Construction

A minimum slab thickness of 6 inches and 4 inches is recommended for new slabs in the warehouse and office areas, respectively. Slabs are to be supported on compacted fill soils properly prepared in accordance with the recommendations provided in this report. Minimum slab reinforcement should be determined by the structural engineer based on the imposed loading and crack control.

It is recommended that subgrade soils below slabs be moisture conditioned in order to maintain the recommended moisture content up to the time of concrete placement. The recommended moisture should be approximately at 4 percent above optimum moisture content to a minimum depth of 12 inches.

Some post-construction moisture migration should be expected below the foundation. The following recommendations should be applied for office areas and/or other portions of the proposed warehouse that may be sensitive to nuisance moisture migrating through the slab from the subgrade soils. The following recommendations are for informational purposes only, as they are unrelated to the geotechnical performance of the foundation. Post-construction soil moisture must be anticipated below the foundation. The following recommendations may be superseded by the foundation engineer and/or owner.

In general, interior floor slabs with moisture sensitive floor coverings should be underlain by a minimum 15 mil thick vapor retarder, which has a water vapor transmission rate (permeance) of less than 0.3 perms, as determined by ASTM E 96, and meets the applicable code requirements (ASTM E 1745).

It is the responsibility of the contractor to ensure that the moisture/vapor retarder systems are properly installed in accordance with the project plans and manufacturers specifications, and that the moisture/vapor retarder materials are free of tears and punctures prior to and as a result of concrete placement. Additional moisture reduction and/or prevention measures may be needed, depending on the performance requirements of future interior floor coverings.

The foundation/structural engineer should determine whether the use of a capillary break (sand or gravel layer) in conjunction with the vapor retarder is necessary or required by code. Sand layer thickness and location (above and/or below vapor retarder) should also be determined by the foundation/structural engineer. Sand layers should be installed, where applicable, in accordance with ACI Publication 302 – “Guide for Concrete Floor and Slab Construction.”

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4.2.4 Lateral Load Resistance

Resistance to lateral loads can be provided by friction acting at the base of foundations and by passive earth pressure. For concrete/soil frictional resistance, an allowable coefficient of friction of 0.3 may be assumed with dead-load forces. An ultimate passive lateral earth pressure of 300 psf per foot of depth (or pcf) to a maximum of 2,500 psf may be used for the sides of footings poured against properly compacted fill. This passive pressure is applicable for level (ground slope equal to or flatter than 5H:1V) conditions only. We recommend that the upper foot of passive resistance be neglected if finished grade will not be covered with concrete or asphalt. The provided passive resistance value is an ultimate value, so appropriate safety factors (i.e., minimum of 1.5) should be applied by the structural designer.

4.3 Retaining Wall Recommendations (Including Loading Docks)

The following sections provide the specific geotechnical parameters for wall design. Contained in the following sections are alternate design parameters for the chosen backfill material, wall type and wall location. The structural engineer must carefully select the appropriate design parameters dependent upon these factors and clearly show on the plans the proposed backfill material and drainage details.

4.3.1 Lateral Earth Pressures and Retaining Wall Design Considerations (Level Ground in Front of Wall)

Lateral earth pressures are provided as equivalent fluid unit weights, in pound per square foot (psf) per foot of depth or pcf. These values do not contain an appreciable factor of safety, so the retaining wall designer should apply the applicable factors of safety and/or load factors during design. A soil unit weight of 120 pcf may be assumed for calculating the actual weight of soil over the wall footing.

Presented on Table 3 are the lateral earth pressures for sandy soils (free draining) with a maximum of 35 percent fines (passing the No. 200 sieve) per American Society for Testing and Materials (ASTM) D421/422 and an expansion index of less than 20. Retaining wall backfill should also be limited to fill material not exceeding 3 inches in greatest dimension. The limits of select sandy backfill should extend one-half the height of the retaining wall or the width of the heel, whichever is greater, refer to Figure 4. The upper 12 to 18 inches of the retaining walls should be backfilled with onsite fill (non-select) soils to finish grade. Retaining wall backfill soils should be compacted in relatively uniform thin lifts to a minimum of 90 percent relative compaction (based on ASTM Test Methods D2922 and D3017). Jetting or flooding of retaining wall backfill materials should not be permitted. The retaining wall designer should clearly indicate on the retaining wall plans the required select sandy soil backfill and drainage details, (see Figure 4, rear of text).

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TABLE 3

Lateral Earth Pressures – Select Import Sand Backfill

Condition	Equivalent Fluid Weight (pcf) for Level Backfill with Approved Backfill Material
Active	35
At Rest	65

If the wall can yield enough to mobilize the full shear strength of the soil, it can be designed for "active" pressure. If the wall cannot yield under the applied load, the earth pressure will be higher. This would include 90-degree corners of retaining walls and building basement walls. Such walls should be designed for "at-rest." The equivalent fluid pressure values assume free-draining conditions and a drainage system will be installed and maintained to prevent the build-up of hydrostatic pressures. Retaining wall structures should be provided with appropriate drainage and appropriately waterproofed. To reduce, but not eliminate, the potential of saturation of soils in front of the retaining walls, the subdrain may be lowered behind the footing and below finish grade as long as it is properly outletted and connects with the free-draining backfill. The outlet pipe should drain to a suitable outlet. In general, we do not recommend retaining wall outlet pipes be connected to area drains. If subdrains are connected to area drains, special care and information should be provided to homeowners to maintain these drains. It should be noted that the recommended subdrain does not provide protection against seepage through the face of the wall and/or efflorescence. Efflorescence is generally a white crystalline powder (discoloration) that results when water containing soluble salts migrates over a period of time through the face of a retaining wall and evaporates. If such seepage or efflorescence is undesirable, retaining walls should be waterproofed to reduce this potential.

Surcharge loading effects from any adjacent structures should be evaluated by the retaining wall designer. In general, structural loads within a 1:1 (horizontal to vertical) upward projection from the bottom of the proposed retaining wall footing will surcharge the proposed retaining structure. Uniform surcharges may be estimated using the applicable coefficient of lateral earth pressure using a rectangular distribution. A factor of 0.5 and 0.33 may be used for at-rest and active conditions, respectively. The retaining wall designer should contact the geotechnical engineer for any required geotechnical input in estimating any applicable surcharge loads.

If required, the retaining wall designer may use a seismic lateral earth pressure increment of 5 pcf for a level backfill condition and 12 pcf for 2:1 sloping backfill. This increment should be applied in addition to the provided static lateral earth pressure using a "normal" triangular distribution with the resultant acting at H/3 in relation to the base of the retaining structure (where H is the retained height). When analyzing short duration seismic loading for the restrained, at-rest condition, the seismic increment may be added to the applicable active lateral earth pressure (in lieu of the at-rest lateral earth pressure). Per Section 1803.5.12 of the 2013 CBC, the seismic earth pressure is applicable to "structures assigned to Seismic Design

Category D, E, or F in accordance with Section 1613." This seismic lateral earth pressure is estimated using the procedure outlined by the Structural Engineers Association of California (Lew, et al, 2010). The provided seismic lateral earth pressure is for a level backfill, if a sloping backfill condition is proposed LGC Geotechnical should be contacted for specific seismic lateral earth pressure increments based on the planned configuration of the retaining walls.

4.4 Control of Surface Water and Drainage Control

From a geotechnical perspective, positive drainage of surface water away from structures is very important. Water should not be allowed to pond adjacent to buildings or to flow freely down a graded slope. Per the 2013 CBC, positive drainage may be accomplished by providing drainage away from buildings at a gradient of at least 5 percent for earthen surfaces for a distance of at least 10 feet away from the face of building. If a distance of 10 feet cannot be achieved, an alternative of a gradient of at least 5 percent to an area drain or swale having a gradient of 2 percent is acceptable. Where necessary, drainage paths may be shortened by use of area drains and collector pipes. Eave gutters are recommended and should reduce water infiltration into the subgrade soils if the downspouts are properly connected to appropriate outlets. Ultimately surface drainage and code compliance is the purview of the Project Civil Engineer.

Planters with open bottoms adjacent to buildings should be avoided. Planters should not be designed adjacent to buildings unless provisions for drainage, such as catch basins, liners, and/or area drains, are made. Overwatering must be avoided.

4.5 Preliminary Asphalt Concrete Pavement Sections

Laboratory testing performed by NorCal Engineering (2014b) resulted in a R-values of 5 for the onsite soils. Provisional minimum street sections are provided below for Traffic Indices from 5.0 to 8.0 to be utilized in the design of the auto and truck parking/circulation areas. Pavement sections are based on Caltrans Highway Design Manual (Caltrans, 2008). These recommendations must be confirmed with R-value testing of representative near-surface soils at the completion of grading and after underground utilities have been installed and backfilled. Final street sections should be confirmed by the project civil engineer based upon the projected design Traffic Index. If requested, LGC Geotechnical will provide sections for alternate TI values.

TABLE 4

Paving Section Options

Assumed Traffic Index	5.0	6.0	7.0	8.0
R-Value Subgrade	5	5	5	5
AC Thickness	4.0 inches	4.0 inches	5.0 inches	6.0 inches
Base Thickness	10.0 inches	13.5 inches	15.0 inches	17.0 inches

The thicknesses shown are for minimum thicknesses. Increasing the thickness of any or all of the above layers will reduce the likelihood of the pavement experiencing distress during its service life. The above recommendations are based on the assumption that proper maintenance and irrigation of

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the areas adjacent to the roadway will occur through the design life of the pavement. Failure to maintain a proper maintenance and/or irrigation program may jeopardize the integrity of the pavement.

Aggregate base material (crushed aggregate base and crushed miscellaneous base) should be compacted to a minimum of 95 percent relative compaction at or slightly above optimum moisture content per ASTM D1557. Subgrade below aggregate base should be compacted to a minimum of 90 percent relative compaction at or slightly above optimum moisture content per ASTM D1557.

4.6 Soil Corrosivity to Concrete and Metal

Although not corrosion engineers (LGC Geotechnical is not a corrosion consultant), several governing agencies in Southern California require the geotechnical consultant to determine the corrosion potential of soils to buried concrete and metal facilities. We therefore present the results of previous testing with regard to corrosion for the use of the client and other consultants, as they determine necessary.

Previous corrosion testing (pH, resistivity, chloride and soluble sulfate content) was performed to estimate the corrosion potential of onsite soils (NorCal, 2014b). The results for corrosion potential indicated a minimum resistivity value of 2,403 ohm-centimeters, a pH value of 7.8, a soluble solfate concentration of 0.0038 percent, and a chloride concentration of 225 parts per million (ppm). Caltrans defines a corrosive area where any of the following conditions exist: the soil contains more than 500 ppm of chlorides, more than 2,000 ppm (0.2 percent) of sulfates, or a pH of 5.5 or less (Caltrans, 2012).

Based on preliminary laboratory sulfate test results, site soils should be considered to have a severity categorization of “Not Applicable” and are designated to a class “S0”, per ACI 318, Table 4.2.1 and Table 4.3.1, respectively. This must be verified based on as-graded conditions.

4.7 Nonstructural Concrete Flatwork

Nonstructural concrete flatwork (such as walkways, patio areas, etc.) has a high potential for cracking due to changes in soil volume related to soil-moisture fluctuations. To reduce the potential for excessive cracking and lifting, concrete should be designed in accordance with the minimum guidelines outlined in Table 5 below. These guidelines will reduce the potential for irregular cracking and promote cracking along construction joints, but will not eliminate all cracking or lifting. Thickening the concrete and/or adding additional reinforcement will further reduce cosmetic distress. Please note that these are preliminary recommendations that will need to be confirmed and/or modified based on as-graded conditions at the completion of grading.

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TABLE 5

Minimal Guidelines for Nonstructural Concrete Flatwork

	Sidewalks	Patios
Minimum Thickness (in.)	4 (nominal)	4 (full)
Presoaking	Wet down prior to placing	Wet down prior to placing
Reinforcement	—	No. 3 at 24 inches on centers
Thickened Edge (in.)	—	—
Crack Control Joints	Saw cut or deep open tool joint to a minimum of $^1/_3$ the concrete thickness	Saw cut or deep open tool joint to a minimum of $^1/_3$ the concrete thickness
Maximum Joint Spacing	5 feet	6 feet
Aggregate Base Thickness (in.)	—	—

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5.0 LIMITATIONS

Our services were performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable engineers and geologists practicing in this or similar localities. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report. The samples taken and submitted for laboratory testing, the observations made and the in-situ field testing performed are believed representative of the entire project; however, soil and geologic conditions revealed by excavation may be different than our preliminary findings. If this occurs, the changed conditions must be evaluated by the project soils engineer and geologist and design(s) adjusted as required or alternate design(s) recommended.

This report is issued with the understanding that it is the responsibility of the owner, or of his/her representative, to ensure that the information and recommendations contained herein are brought to the attention of the architect and/or project engineer and incorporated into the plans, and the necessary steps are taken to see that the contractor and/or subcontractor properly implements the recommendations in the field. The contractor and/or subcontractor should notify the owner if they consider any of the recommendations presented herein to be unsafe.

The findings of this report are valid as of the present date. However, changes in the conditions of a property can and do occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties. Therefore, the findings, conclusions, and recommendations presented in this report can be relied upon only if LGC Geotechnical has the opportunity to observe the subsurface conditions during grading and construction of the project, in order to confirm that our preliminary findings are representative for the site.

In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and modification, and should not be relied upon after a period of 3 years.

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FIGURE 1
Site Location Map

PROJECT NAME	Sares Regis - Moreno Valley
PROJECT NO.	15208-01
ENG. / GEOL.	TJL
SCALE	Not to Scale
DATE	January 2016

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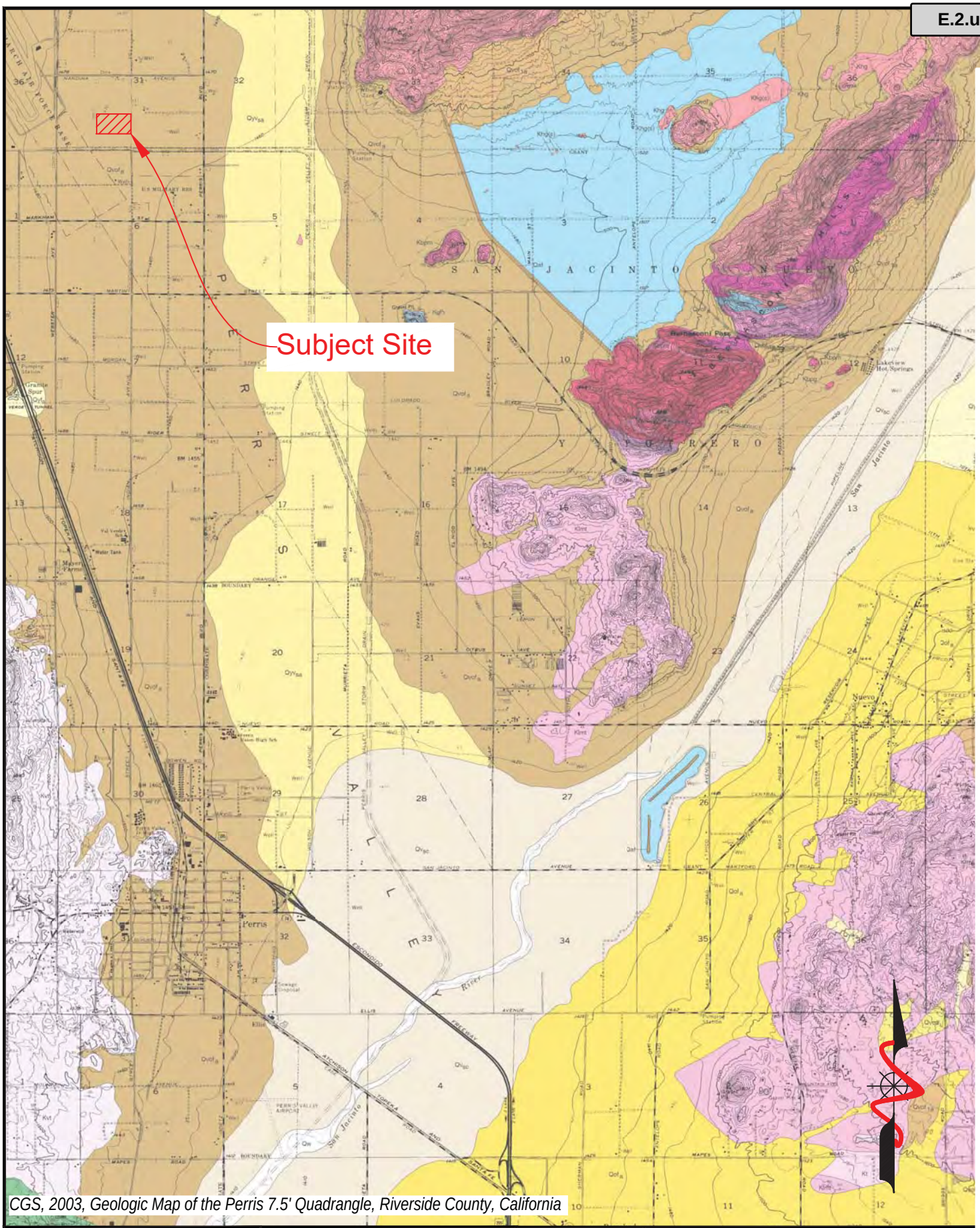

CGS, 2003, Geologic Map of the Perris 7.5' Quadrangle, Riverside County, California

LGC Geotechnical, Inc.

FIGURE 2
Regional Geology Map

PROJECT NAME	Sares Regis - Moreno Valley
PROJECT NO.	15208-01
ENG. / GEOL.	TJL
SCALE	Not to Scale
DATE	January 2016

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Photograph 1 - Storm drain inlet on southeast corner of property



Photograph 2 - Existing warehouse along southern boundary



Photograph 3 - Eastern boundary as viewed from the southeast corner



Photograph 4 - Trees on the west half of property as seen from the southeast corner

LGC Geotechnical, Inc.

FIGURE 3
Site Photographs

PROJECT NAME	Sares Regis - Moreno Valley
PROJECT NO.	15208-01
ENG. / GEOL.	TJL
SCALE	Not to Scale
DATE	January 2016

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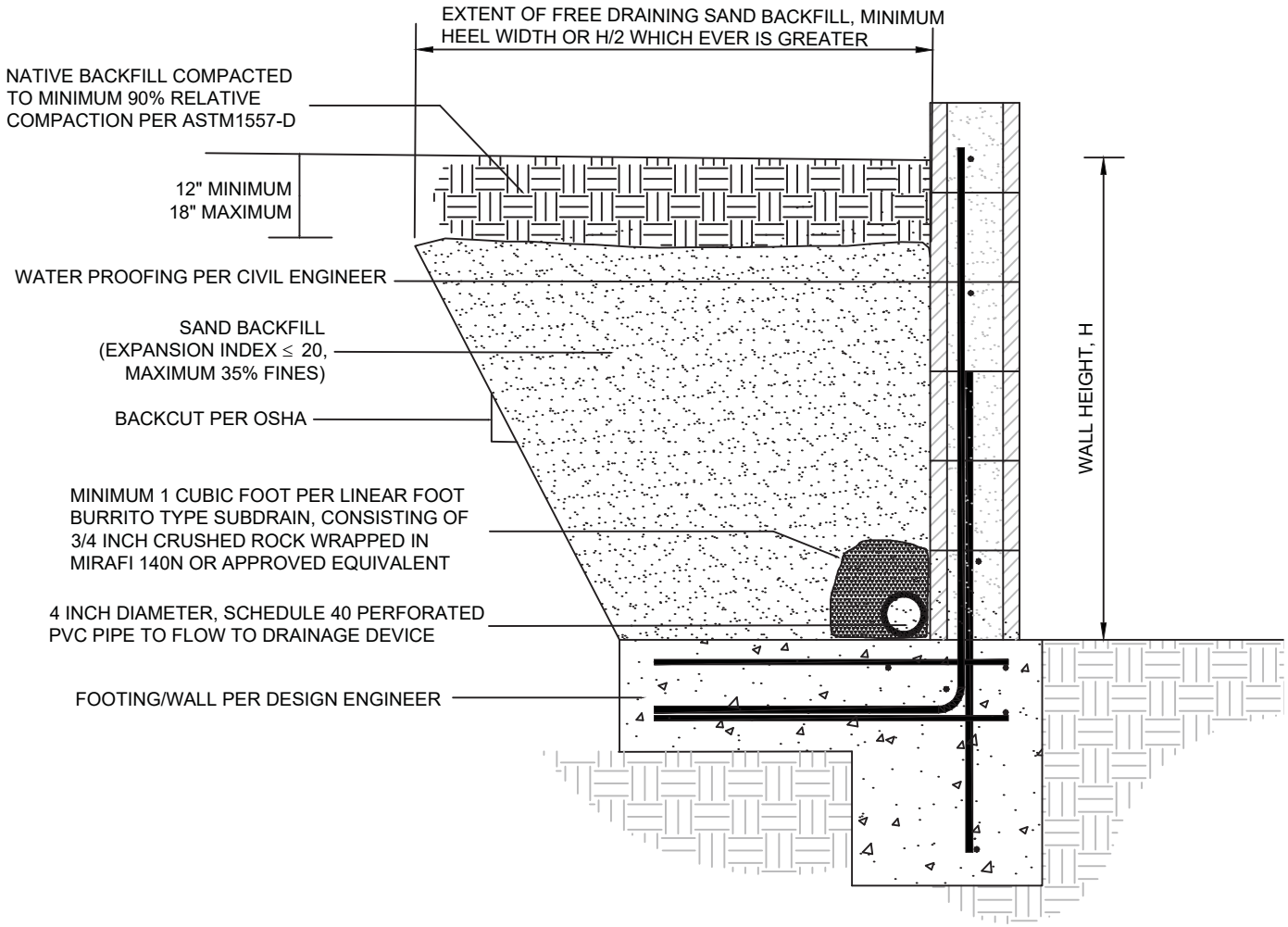

NOTE:
PLACEMENT OF SUBDRAIN
AT BASE OF WALL WILL NOT
PREVENT SATURATION OF SOILS
BELOW AND / OR IN FRONT OF WALL

LGC Geotechnical, Inc.

FIGURE 4
Retaining Wall Detail - Select Sandy Backfill

PROJECT NAME	Sares Regis - Moreno Valley
PROJECT NO.	15208-01
ENG. / GEOL.	TJL
SCALE	Not to Scale
DATE	January 2016

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Appendix A References

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APPENDIX A

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Appendix B
Boring and Test Pit Logs

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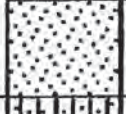
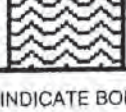
MAJOR DIVISION			GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL, SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	SAND AND SANDY SOILS	CLEAN SAND (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SANDS WITH FINE (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND-SILT MIXTURES
				SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

UNIFIED SOIL CLASSIFICATION SYSTEM

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KEY:

- ■ Indicates 2.5-inch Inside Diameter. Ring Sample.
- ⊠ Indicates 2-inch OD Split Spoon Sample (SPT).
- ⧅ Indicates Shelby Tube Sample.
- ◫ Indicates No Recovery.
- ◧ Indicates SPT with 140# Hammer 30 in. Drop.
- ⊠ Indicates Bulk Sample.
- ◩ Indicates Small Bag Sample.
- ◨ Indicates Non-Standard
- ⧗ Indicates Core Run.

COMPONENT PROPORTIONS

DESCRIPTIVE TERMS	RANGE OF PROPORTION
Trace	1 - 5%
Few	5 - 10%
Little	10 - 20%
Some	20 - 35%
And	35 - 50%

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No 4 (4.5mm)
Sand	No. 4 (4.5mm) to No. 200 (0.074mm)
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074 mm)

MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch.
DAMP	Some perceptible moisture; below optimum
MOIST	No visible water; near optimum moisture content
WET	Visible free water, usually soil is below water table.

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N -VALUE

COHESIONLESS SOILS		COHESIVE SOILS		
Density	N (blows/ft)	Consistency	N (blows/ft)	Approximate Undrained Shear Strength (psf)
Very Loose	0 to 4	Very Soft	0 to 2	< 250
Loose	4 to 10	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	Stiff	8 to 15	1000 - 2000
Very Dense	over 50	Very Stiff	15 to 30	2000 - 4000
		Hard	over 30	> 4000

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Vogel Properties
17549-14

Log of Boring B-1

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Hollowstem Auger

Hammer Weight: 140 lbs | Drop: 30"

Surface Elevation: Not Measured



Depth (feet)	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0	DISTURBED TOP SOILS Loose, dry to damp NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp					
5	Clayey SAND Brown, dense, damp	⊠	21/18/17	6.2		37
10	Sandy clayey SILT Brown, stiff, moist	⊠	11/13/10	11.5		45
15		⊠	10/19/15	13.7		50
20		⊠	10/9/8	15.2		58
25		⊠	10/10/11	14.1		56
30		⊠	10/9/11	15.6		56
35						

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Vogel Properties
17549-14

Log of Boring B-1

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Hollowstem Auger

Hammer Weight: 140 lbs | Drop: 30"

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
35		Clayey SAND Brown, dense, moist	X	9/12/9	12.9		42
40			X	11/11/13	16.6		44
45		Silty SAND Brown, dense, moist	X	24/16/14	14.9		16
50		Sandy SILT with clay Brown, stiff, moist Boring completed at depth of 51.5'	X	21/16/14	12.8		45
55							
60							
65							
70							

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Vogel Properties
17549-14

Log of Boring B-2

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Hollowstem Auger

Hammer Weight: 140 lbs | Drop: 30"

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		FILL SOILS Sandy clayey SILT with rootlets Brown, soft, dry					
		NATURAL SOILS Sandy clayey SILT Brown, stiff, damp to moist					
5			X	24/26/15	6.0		54
10		Clayey SAND Brown, very dense, damp	X	35/50+/--	7.9		39
15		Sandy clayey SILT Brown, stiff, moist	X	12/15/19	17.2		55
20			X	16/17/15	14.0		62
25			X	12/14/17	13.1		62
30			X	12/14/18	14.3		64
35							

GWT not encountered

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Vogel Properties
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Log of Boring B-2

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Hollowstem Auger

Hammer Weight: 140 lbs | Drop: 30"

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
35		Clayey SAND Brown, very dense, moist	X	25/26/24	13.8		47
40		Silty SAND Brown, dense, moist	X	17/17/19	7.8		28
45		Clayey sandy SILT Brown, very stiff, moist	X	24/26/22	13.6		62
50			X	20/18/16	12.7		55
		Boring completed at depth of 51.5'					
55							
60							
65							
70							

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Vogel Properties
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Log of Trench T-1

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		SURFICIAL FILL SOILS					
		Sandy clayey SILT with occasional gravel, roots, minor debris					
		Brown, soft, damp					
		NATURAL SOILS					
		Sandy clayey SILT					
5		Brown, medium stiff to stiff, damp					
		Boring completed at depth of 2'					
10							
15							
20							
25							
30							
35							

GWT not encountered

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Vogel Properties
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Log of Trench T-2

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		SURFICIAL FILL SOILS					
		Sandy clayey SILT with occasional gravel, roots, minor debris					
		Brown, soft, damp					
		NATURAL SOILS					
		Sandy clayey SILT					
5		Brown, medium stiff to stiff, damp					
		Boring completed at depth of 2'					
10							
15							
20							
25							
30							
35							

GWT not encountered

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Vogel Properties
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Log of Trench T-3

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel Brown, soft, damp					
5		GWT not encountered NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp to moist					
		Boring completed at depth of 6'					
10							
15							
20							
25							
30							
35							

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Vogel Properties
17549-14

Log of Trench T-4

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel Brown, soft, damp					
		GWT not encountered					
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp to moist					
5		Boring completed at depth of 6'					
10							
15							
20							
25							
30							
35							

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Vogel Properties
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Log of Trench T-5

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel Brown, soft, damp					
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp to moist					
5		Boring completed at depth of 6'					
10							
15							
20							
25							
30							
35							

GWT not encountered

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Vogel Properties
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Log of Trench T-6

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel Brown, soft, damp					
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp to moist					
5		GWT not encountered					
		Boring completed at depth of 6'					
10							
15							
20							
25							
30							
35							

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Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Vogel Properties
17549-14

Log of Trench T-7

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel, roots, minor debris Brown, soft, damp					
5		GWT not encountered NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp to moist					
		Boring completed at depth of 6'					
10							
15							
20							
25							
30							
35							

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Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Vogel Properties
17549-14

Log of Trench T-8

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel, roots, minor debris Brown, soft, damp	■		6.5	107.4	
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp	■		7.6	107.9	
5			■		9.0	100.9	
10		Clayey SAND Brown, dense, moist	■		6.2	104.9	
		Boring completed at depth of 12.5'					
15							
20							
25							
30							
35							

GWT not encountered

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Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Vogel Properties
17549-14

Log of Trench T-9

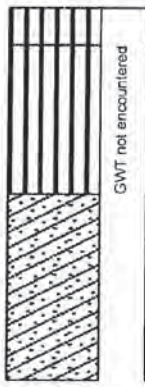
Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured



Depth (feet)	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0	SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel, roots, minor debris Brown, soft, damp					
	NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp					
5	Clayey SAND Brown, dense, damp	■		5.8	118.8	
		■		7.1	112.4	
10	Boring completed at depth of 10'					
15						
20						
25						
30						
35						

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Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Vogel Properties
17549-14

Log of Trench T-10

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel, roots Brown, soft, damp					
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp	■		10.2	116.7	
5			■		10.9	118.6	
		Boring completed at depth of 8'					
10							
15							
20							
25							
30							
35							

GWT not encountered

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Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Vogel Properties
17549-14

Log of Trench T-11

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		SURFICIAL FILL SOILS					
		Sandy clayey SILT with occasional gravel, roots, minor debris					
		Brown, soft, damp					
		NATURAL SOILS					
		Sandy clayey SILT					
5		Brown, medium stiff to stiff, damp to moist					
		Boring completed at depth of 5'					
10							
15							
20							
25							
30							
35							

GWT not encountered

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Vogel Properties
17549-14

Log of Trench T-12

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		DISTURBED TOP SOILS Sandy clayey SILT with occasional roots Brown, soft, damp	■		6.9	110.4	
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp					
5			■		8.3	117.8	
10		Silty SAND Brown, dense, damp	■		10.5	116.3	
		Clayey SILT with some sand Brown, stiff, moist					
15		Clayey SAND Brown, dense, damp	■		5.9	123.3	
		Boring completed at depth of 16'					
20							
25							
30							
35							

GWT not encountered

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Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Vogel Properties
17549-14

Log of Trench T-13

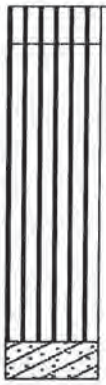
Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured



Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		DISTURBED TOP SOILS Sandy clayey SILT with occasional roots Brown, soft, damp					
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp					
5			■		11.3	111.2	
		Clayey SAND Brown, dense, moist	■		9.4	117.9	
10		Boring completed at depth of 10'					
15							
20							
25							
30							
35							

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Vogel Properties
17549-14

Log of Trench T-14

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		DISTURBED TOP SOILS Sandy clayey SILT with occasional roots Brown, soft, damp					
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp to moist					
5		Boring completed at depth of 5'					
10							
15							
20							
25							
30							
35							

GWT not encountered

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Vogel Properties
17549-14

Log of Trench T-15

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured



GWT not encountered

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel, roots, minor debris Brown, soft, damp					
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp to moist	■		5.5	103.2	
5							
			■		10.4	108.9	
		Boring completed at depth of 9'					
10							
15							
20							
25							
30							
35							

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Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Vogel Properties
17549-14

Log of Trench T-16

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14

Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight:

Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel, roots, minor debris Brown, soft, damp					
		GWT not encountered					
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp to moist					
5			■		8.0	118.8	
		Boring completed at depth of 6'					
10							
15							
20							
25							
30							
35							

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Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Vogel Properties
17549-14

Log of Trench T-17

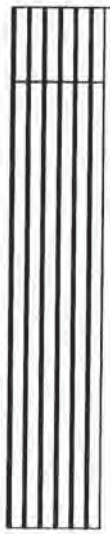
Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured



Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing 200 Sieve
0		SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel, roots, minor debris Brown, soft, damp	■		8.8	104.4	
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp to moist	■		6.1	111.8	
5							
			■		13.0	104.8	
10							
			■		13.7	109.9	
		Boring completed at depth of 14'					
15							
20							
25							
30							
35							

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Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Appendix C
Laboratory Test Results

July 21, 2014 Project Number 17549-14

TABLE I
MAXIMUM DENSITY TESTS
(ASTM: D-1557-07)

Sample	Classification	Optimum Moisture	Maximum Dry Density (lbs./cu.ft.)
T-12 @ 2-4'	sandy, clayey SILT	10.0	113.9

TABLE II
EXPANSION INDEX TESTS
(ASTM: D-4829-07)

Sample	Classification	Expansion Index
T-12 @ 2-4'	sandy, clayey SILT	27

TABLE III
ATTERBERG LIMITS
(ASTM: D-4318-05)

Sample	Liquid Limit	Plastic Limit	Plasticity Index
T-12 @ 2-4'	29	19	10
B-2 @ 15'	31	20	11

TABLE IV
SOLUBLE SULFATE TESTS
(CT 417)

Sample	Sulfate Concentration (%)
T-10 @ 1-2'	.0038

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

TABLE V
pH TESTS

Sample	pH
T-10 @ 1-2'	7.8

TABLE VI
RESISTIVITY TESTS
(CT 643)

Sample	Resistivity (ohm-cm)
T-10 @ 1-2'	2,403

TABLE VII
CHLORIDE TESTS
(CT 422))

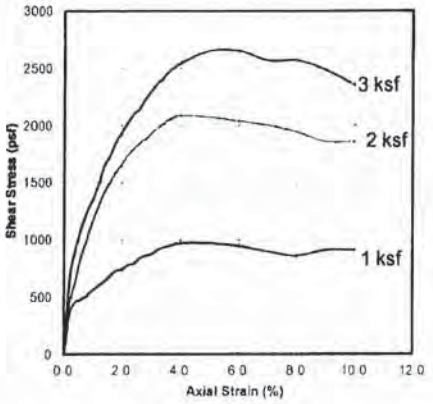
Sample	Concentration (ppm)
T-10 @ 1-2'	225

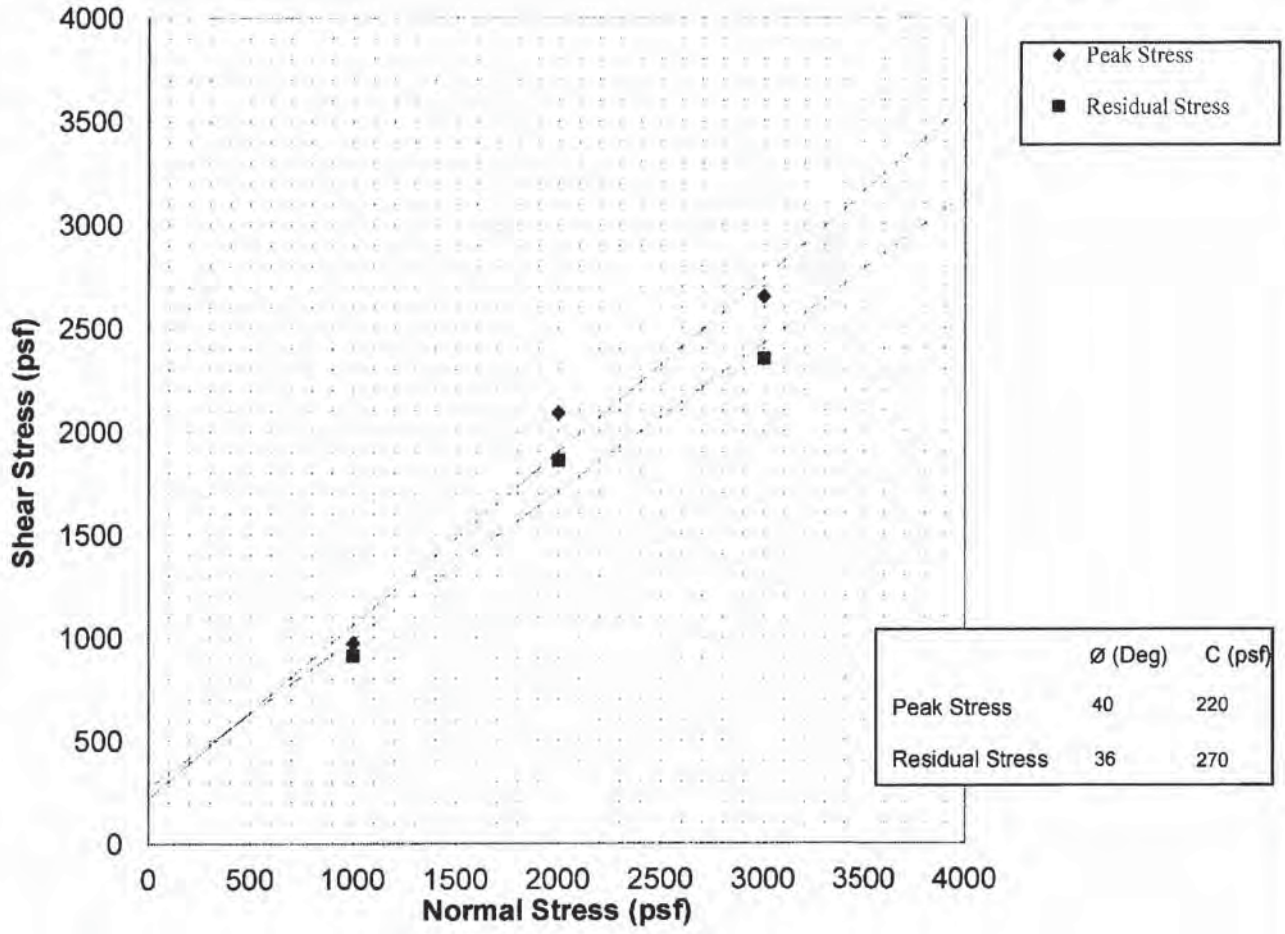
TABLE VIII
RESISTANCE 'R' VALUE TESTS
(CA 301))

Sample	'R' Value
T-1 @ 1-2'	5

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Sample No		T9@5'		
Sample Type:		Undisturbed/Saturated		
Soil Description:		Silty Fine-Very Coarse Grained Sand w/ Some Small Gravel (DG)		
		1	2	3
Normal Stress	(psf)	1000	2000	3000
Peak Stress	(psf)	972	2088	2652
Displacement	(in.)	0.100	0.100	0.125
Residual Stress	(psf)	912	1860	2352
Displacement	(in.)	0.250	0.250	0.250
In Situ Dry Density	(pcf)	118.8	118.8	118.8
In Situ Water Content	(%)	5.8	5.8	5.8
Saturated Water Content	(%)	15.4	15.4	15.4
Strain Rate	(in/min)	0.020	0.020	0.020





	Ø (Deg)	C (psf)
Peak Stress	40	220
Residual Stress	36	270

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SOILS AND GEOTECHNICAL CONSULTANTS

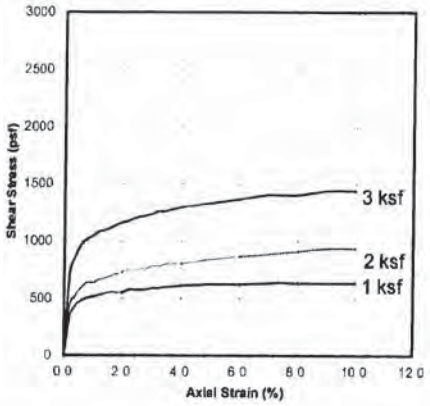
Vogel Properties, In.c

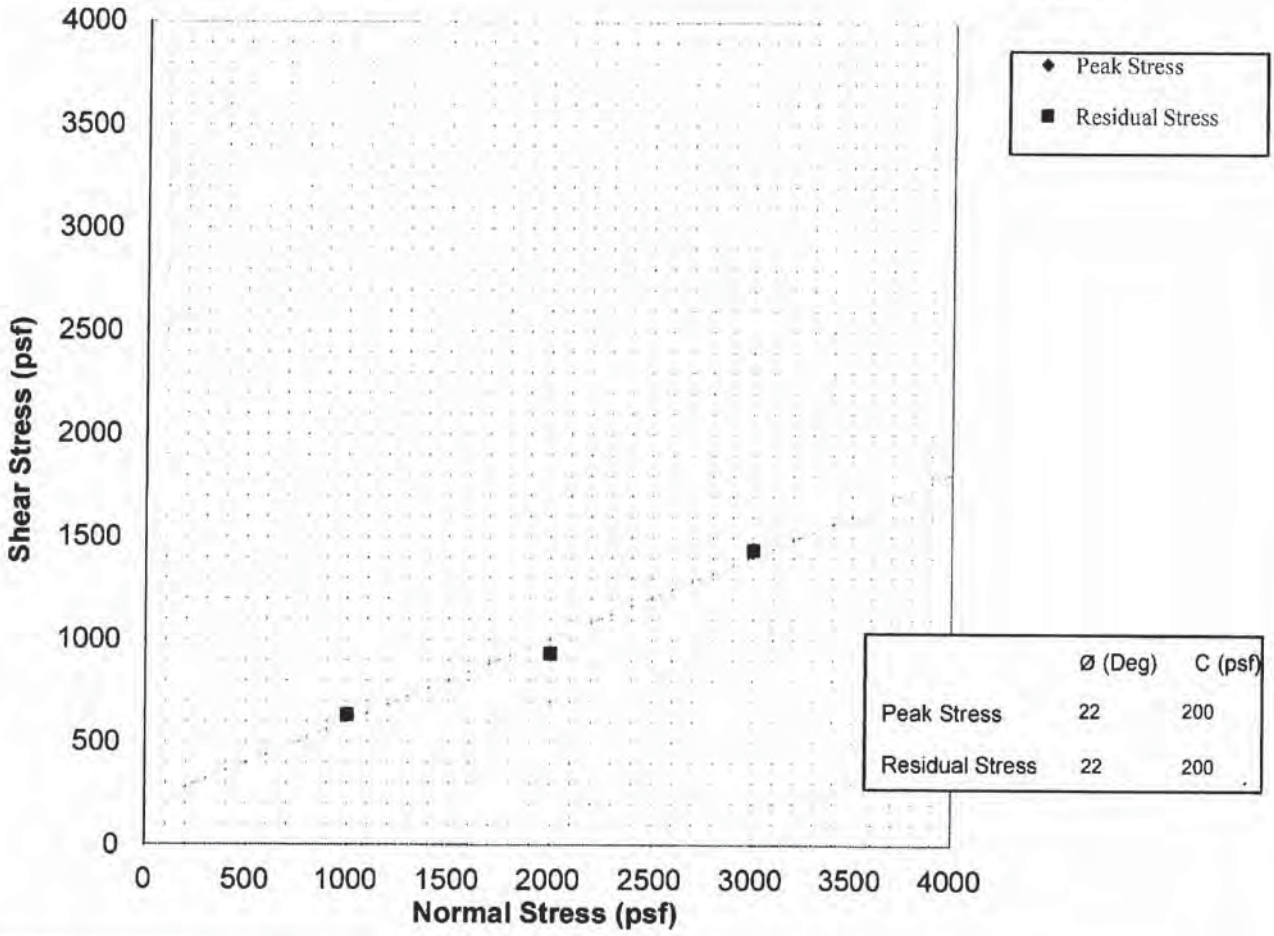
PROJECT NUMBER: 17549-14 DATE: 7/22/2014

DIRECT SHEAR TEST
ASTM D3080
Plate A

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Sample No.		T12@2'		
Sample Type:		Remolded/Saturated		
Soil Description		Silty Clay w/ Some Sand		
		1	2	3
Normal Stress	(psf)	1000	2000	3000
Peak Stress	(psf)	636	936	1440
Displacement	(in)	0 175	0.225	0 225
Residual Stress	(psf)	636	936	1440
Displacement	(in)	0 250	0 250	0 250
In Situ Dry Density	(pcf)	113 9	113.9	113 9
In Situ Water Content	(%)	10 0	10.0	10 0
Saturated Water Content	(%)	17.8	17 8	17 8
Strain Rate	(in/min)	0 020	0 020	0 020





	Ø (Deg)	C (psf)
Peak Stress	22	200
Residual Stress	22	200

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SOILS AND GEOTECHNICAL CONSULTANTS
Vogel Properties, In.c
PROJECT NUMBER: 17549-14 DATE: 7/22/2014

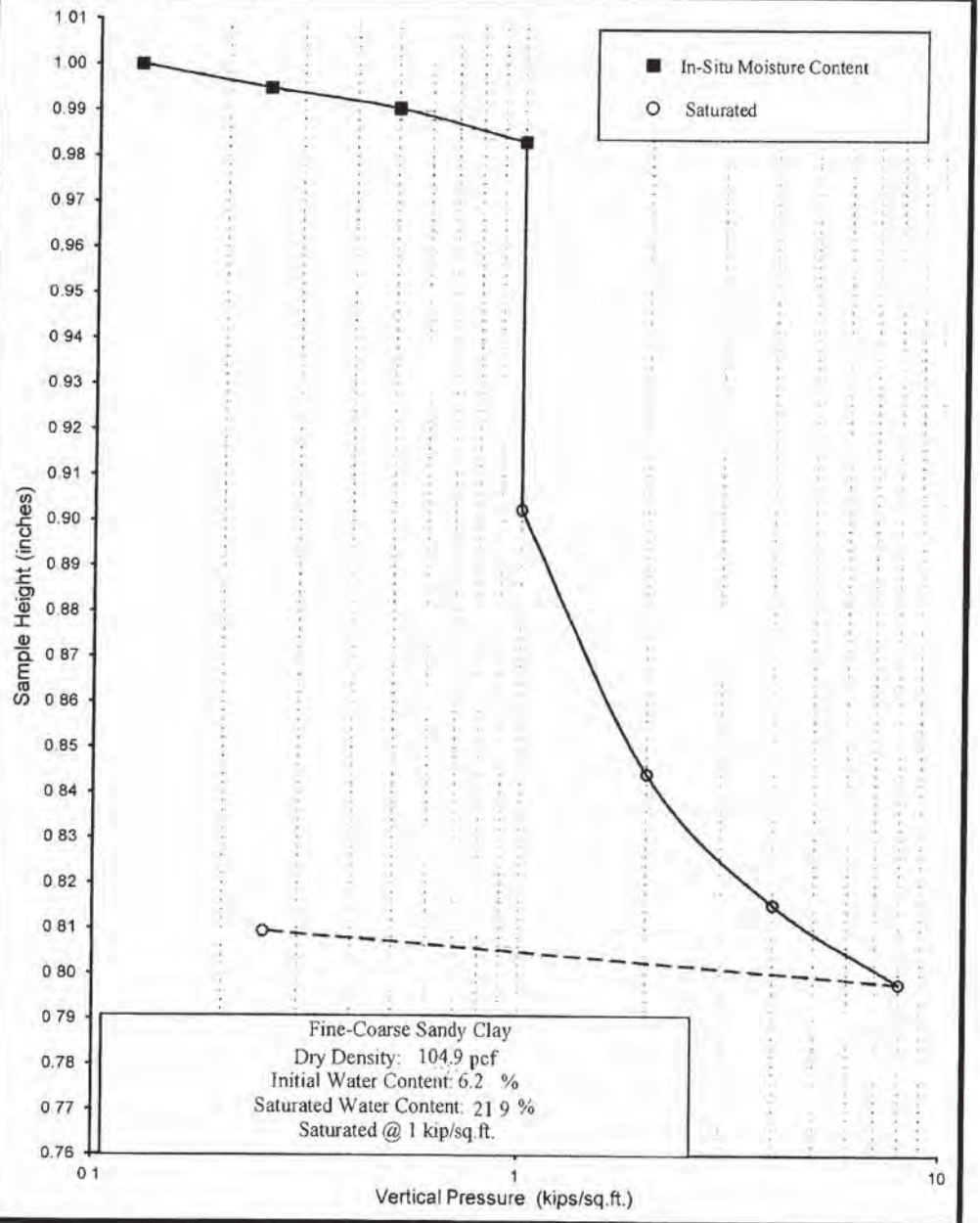
DIRECT SHEAR TEST
ASTM D3080
Plate B

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Vertical Pressure (kips/sq.ft.)	Sample Height (inches)	Consolidation (percent)	
0.125	1.0000	0.0	
0.25	0.9949	0.5	
0.5	0.9905	0.9	
1	0.9831	1.7	
1	0.9024	9.8	Saturated
2	0.8442	15.6	
4	0.8154	18.5	
8	0.7979	20.2	
0.25	0.8094	19.1	

Date Tested: 7/18/2014
Sample: T8
Depth: 12'

Sample No.	T8	Depth	12'	Date	7/22/2014



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SOILS AND GEOTECHNICAL CONSULTANTS

Vogel Properties, In.c

PROJECT NUMBER: 17549-14 DATE: 7/22/2014

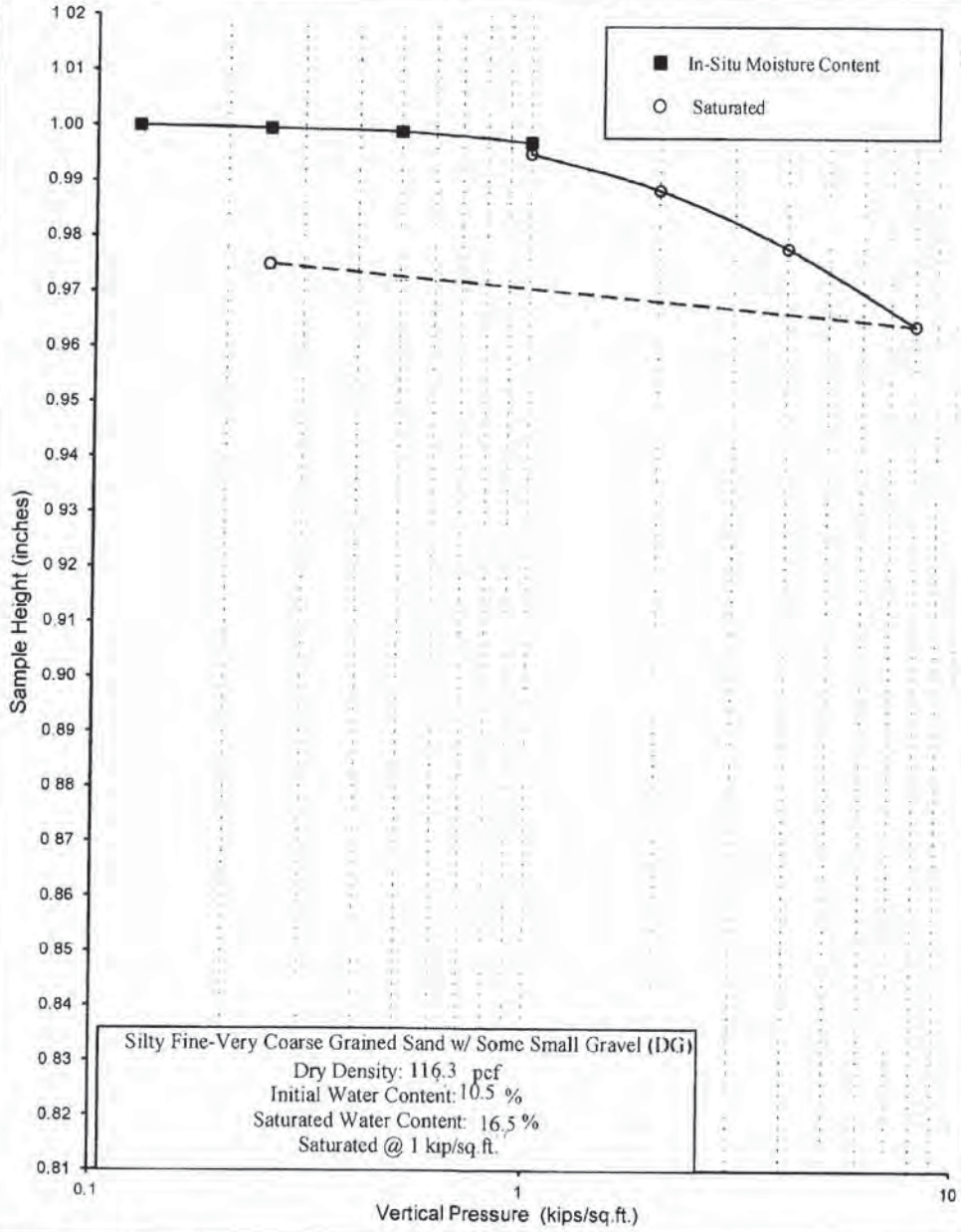
CONSOLIDATION TEST
ASTM D2435
Plate C

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Vertical Pressure (kips/sq.ft.)	Sample Height (inches)	Consolidation (percent)	
0.125	1.0000	0.0	
0.25	0.9995	0.0	
0.5	0.9990	0.1	
1	0.9970	0.3	
1	0.9950	0.5	Saturated
2	0.9885	1.2	
4	0.9780	2.2	
8	0.9640	3.6	
0.25	0.9750	2.5	

Date Tested: 7/21/2014
Sample: T12
Depth: 10'

Sample No.	T12	Depth	10'	Date	7/22/2014



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SOILS AND GEOTECHNICAL CONSULTANTS

Vogel Properties, In.c

PROJECT NUMBER: 17549-14 DATE: 7/22/2014

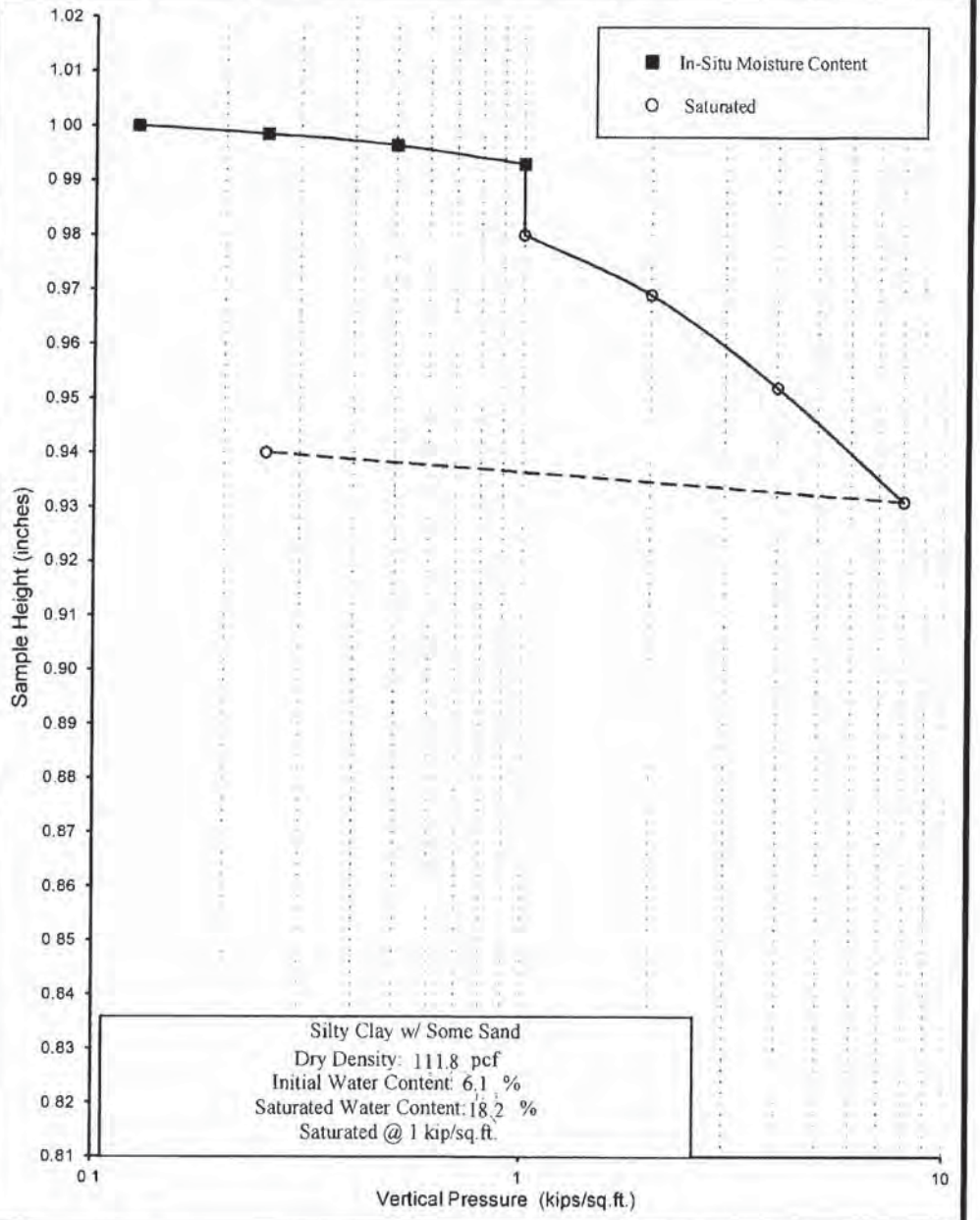
CONSOLIDATION TEST
ASTM D2435
Plate D

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Vertical Pressure (kips/sq.ft.)	Sample Height (inches)	Consolidation (percent)	
0.125	1.0000	0.0	
0.25	0.9985	0.2	
0.5	0.9965	0.4	
1	0.9930	0.7	
1	0.9800	2.0	
2	0.9690	3.1	Saturated
4	0.9520	4.8	
8	0.9310	6.9	
0.25	0.9400	6.0	

Sample No. T17 | Depth 4' | Date 7/22/2014

Date Tested: 7/21/2014
Sample: T17
Depth: 4'



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SOILS AND GEOTECHNICAL CONSULTANTS

Vogel Properties, In.c

PROJECT NUMBER: 17549-14 DATE: 7/22/2014

CONSOLIDATION TEST
ASTM D2435
Plate E

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Appendix D
General Earthwork and Grading Specifications

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

General Earthwork and Grading Specifications for Rough Grading

1.0 General

1.1 Intent

These General Earthwork and Grading Specifications are for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These Specifications are a part of the recommendations contained in the geotechnical report(s). In case of conflict, the specific recommendations in the geotechnical report shall supersede these more general Specifications. Observations of the earthwork by the project Geotechnical Consultant during the course of grading may result in new or revised recommendations that could supersede these specifications or the recommendations in the geotechnical report(s).

1.2 The Geotechnical Consultant of Record

Prior to commencement of work, the owner shall employ a qualified Geotechnical Consultant of Record (Geotechnical Consultant). The Geotechnical Consultant shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading.

Prior to commencement of grading, the Geotechnical Consultant shall review the "work plan" prepared by the Earthwork Contractor (Contractor) and schedule sufficient personnel to perform the appropriate level of observation, mapping, and compaction testing.

During the grading and earthwork operations, the Geotechnical Consultant shall observe, map, and document the subsurface exposures to verify the geotechnical design assumptions. If the observed conditions are found to be significantly different than the interpreted assumptions during the design phase, the Geotechnical Consultant shall inform the owner, recommend appropriate changes in design to accommodate the observed conditions, and notify the review agency where required.

The Geotechnical Consultant shall observe the moisture-conditioning and processing of the subgrade and fill materials and perform relative compaction testing of fill to confirm that the attained level of compaction is being accomplished as specified. The Geotechnical Consultant shall provide the test results to the owner and the Contractor on a routine and frequent basis.

1.3 The Earthwork Contractor

The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of ground to receive fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall review and accept the plans, geotechnical report(s), and these Specifications prior to commencement of grading. The Contractor shall be solely responsible for performing the grading in accordance with the project plans and specifications. The Contractor shall prepare and submit to the owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of “equipment” of work and the estimated quantities of daily earthwork

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contemplated for the site prior to commencement of grading. The Contractor shall inform the owner and the
Geotechnical Consultant of changes in work schedules and updates to the work plan at least 24 hours in advance of such changes so that appropriate personnel will be available for observation and testing. The Contractor shall not assume that the Geotechnical Consultant is aware of all grading operations.

The Contractor shall have the sole responsibility to provide adequate equipment and methods to accomplish the earthwork in accordance with the applicable grading codes and agency ordinances, these Specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). If, in the opinion of the Geotechnical Consultant, unsatisfactory conditions, such as unsuitable soil, improper moisture condition, inadequate compaction, insufficient buttress key size, adverse weather, etc., are resulting in a quality of work less than required in these specifications, the Geotechnical Consultant shall reject the work and may recommend to the owner that construction be stopped until the conditions are rectified. It is the contractor's sole responsibility to provide proper fill compaction.

2.0 Preparation of Areas to be Filled

2.1 Clearing and Grubbing

Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed of in a method acceptable to the owner, governing agencies, and the Geotechnical Consultant.

The Geotechnical Consultant shall evaluate the extent of these removals depending on specific site conditions. Earth fill material shall not contain more than 1 percent of organic materials (by volume). Nesting of the organic materials shall not be allowed.

If potentially hazardous materials are encountered, the Contractor shall stop work in the affected area, and a hazardous material specialist shall be informed immediately for proper evaluation and handling of these materials prior to continuing to work in that area.

As presently defined by the State of California, most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) have chemical constituents that are considered to be hazardous waste. As such, the indiscriminate dumping or spillage of these fluids onto the ground may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall not be allowed. The contractor is responsible for all hazardous waste relating to his work. The Geotechnical Consultant does not have expertise in this area. If hazardous waste is a concern, then the Client should acquire the services of a qualified environmental assessor.

2.2 Processing

Existing ground that has been declared satisfactory for support of fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Existing ground that is not satisfactory shall be over-excavated as specified in the following section. Scarification shall continue until soils are broken down and free of oversize material and the working surface is reasonably uniform, flat, and free of uneven features that would inhibit uniform compaction.

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2.3 Over-excavation

In addition to removals and over-excavations recommended in the approved geotechnical report(s) and the grading plan, soft, loose, dry, saturated, spongy, organic-rich, highly fractured or otherwise unsuitable ground shall be over-excavated to competent ground as evaluated by the Geotechnical Consultant during grading.

2.4 Benching

Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal to vertical units), the ground shall be stepped or benched. Please see the Standard Details for a graphic illustration. The lowest bench or key shall be a minimum of 15 feet wide and at least 2 feet deep, into competent material as evaluated by the Geotechnical Consultant. Other benches shall be excavated a minimum height of 4 feet into competent material or as otherwise recommended by the Geotechnical Consultant. Fill placed on ground sloping flatter than 5:1 shall also be benched or otherwise over-excavated to provide a flat subgrade for the fill.

2.5 Evaluation/Acceptance of Fill Areas

All areas to receive fill, including removal and processed areas, key bottoms, and benches, shall be observed, mapped, elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant prior to fill placement. A licensed surveyor shall provide the survey control for determining elevations of processed areas, keys, and benches.

3.0 Fill Material

3.1 General

Material to be used as fill shall be essentially free of organic matter and other deleterious substances evaluated and accepted by the Geotechnical Consultant prior to placement. Soils of poor quality, such as those with unacceptable gradation, high expansion potential, or low strength shall be placed in areas acceptable to the Geotechnical Consultant or mixed with other soils to achieve satisfactory fill material.

3.2 Oversize

Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 8 inches, shall not be buried or placed in fill unless location, materials, and placement methods are specifically accepted by the Geotechnical Consultant. Placement operations shall be such that nesting of oversized material does not occur and such that oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 vertical feet of finish grade or within 2 feet of future utilities or underground construction.

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3.3 Import

If importing of fill material is required for grading, proposed import material shall meet the requirements of the geotechnical consultant. The potential import source shall be given to the Geotechnical Consultant at least 48 hours (2 working days) before importing begins so that its suitability can be determined and appropriate tests performed.

4.0 Fill Placement and Compaction

4.1 Fill Layers

Approved fill material shall be placed in areas prepared to receive fill (per Section 3.0) in near-horizontal layers not exceeding 8 inches in loose thickness. The Geotechnical Consultant may accept thicker layers if testing indicates the grading procedures can adequately compact the thicker layers. Each layer shall be spread evenly and mixed thoroughly to attain relative uniformity of material and moisture throughout.

4.2 Fill Moisture Conditioning

Fill soils shall be watered, dried back, blended, and/or mixed, as necessary to attain a relatively uniform moisture content at or slightly over optimum. Maximum density and optimum soil moisture content tests shall be performed in accordance with the American Society of Testing and Materials (ASTM Test Method D1557).

4.3 Compaction of Fill

After each layer has been moisture-conditioned, mixed, and evenly spread, it shall be uniformly compacted to not less than 90 percent of maximum dry density (ASTM Test Method D1557). Compaction equipment shall be adequately sized and be either specifically designed for soil compaction or of proven reliability to efficiently achieve the specified level of compaction with uniformity.

4.4 Compaction of Fill Slopes

In addition to normal compaction procedures specified above, compaction of slopes shall be accomplished by backrolling of slopes with sheepsfoot rollers at increments of 3 to 4 feet in fill elevation, or by other methods producing satisfactory results acceptable to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill, out to the slope face, shall be at least 90 percent of maximum density per ASTM Test Method D1557.

4.5 Compaction Testing

Field tests for moisture content and relative compaction of the fill soils shall be performed by the Geotechnical Consultant. Location and frequency of tests shall be at the Consultant's discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify adequacy of compaction levels in areas that are judged to be prone to inadequate compaction (such as close to slope faces and at the fill/bedrock benches).

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4.6 Frequency of Compaction Testing

Tests shall be taken at intervals not exceeding 2 feet in vertical rise and/or 1,000 cubic yards of compacted fill soils embankment. In addition, as a guideline, at least one test shall be taken on slope faces for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope. The Contractor shall assure that fill construction is such that the testing schedule can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork construction if these minimum standards are not met.

4.7 Compaction Test Locations

The Geotechnical Consultant shall document the approximate elevation and horizontal coordinates of each test location. The Contractor shall coordinate with the project surveyor to assure that sufficient grade stakes are established so that the Geotechnical Consultant can determine the test locations with sufficient accuracy. At a minimum, two grade stakes within a horizontal distance of 100 feet and vertically less than
5 feet apart from potential test locations shall be provided.

5.0 Subdrain Installation

Subdrain systems shall be installed in accordance with the approved geotechnical report(s), the grading plan, and the Standard Details. The Geotechnical Consultant may recommend additional subdrains and/or changes in subdrain extent, location, grade, or material depending on conditions encountered during grading. All subdrains shall be surveyed by a land surveyor/civil engineer for line and grade after installation and prior to burial. Sufficient time should be allowed by the Contractor for these surveys.

6.0 Excavation

Excavations, as well as over-excavation for remedial purposes, shall be evaluated by the Geotechnical Consultant during grading. Remedial removal depths shown on geotechnical plans are estimates only. The actual extent of removal shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading. Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made, evaluated, and accepted by the Geotechnical Consultant prior to placement of materials for construction of the fill portion of the slope, unless otherwise recommended by the Geotechnical Consultant.

7.0 Trench Backfills

7.1 The Contractor shall follow all OHSA and Cal/OSHA requirements for safety of trench excavations.

7.2 All bedding and backfill of utility trenches shall be done in accordance with the applicable provisions of Standard Specifications of Public Works Construction. Bedding material shall have a Sand Equivalent greater than 30 (SE>30). The bedding shall be placed to 1 foot over

the top of the conduit and densified by jetting. Backfill shall be placed and densified to a minimum of 90 percent of maximum from 1 foot above the top of the conduit to the surface.

7.3 The jetting of the bedding around the conduits shall be observed by the Geotechnical Consultant.

7.4 The Geotechnical Consultant shall test the trench backfill for relative compaction. At least one test should be made for every 300 feet of trench and 2 feet of fill.

7.5 Lift thickness of trench backfill shall not exceed those allowed in the Standard Specifications of Public Works Construction unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment and method.

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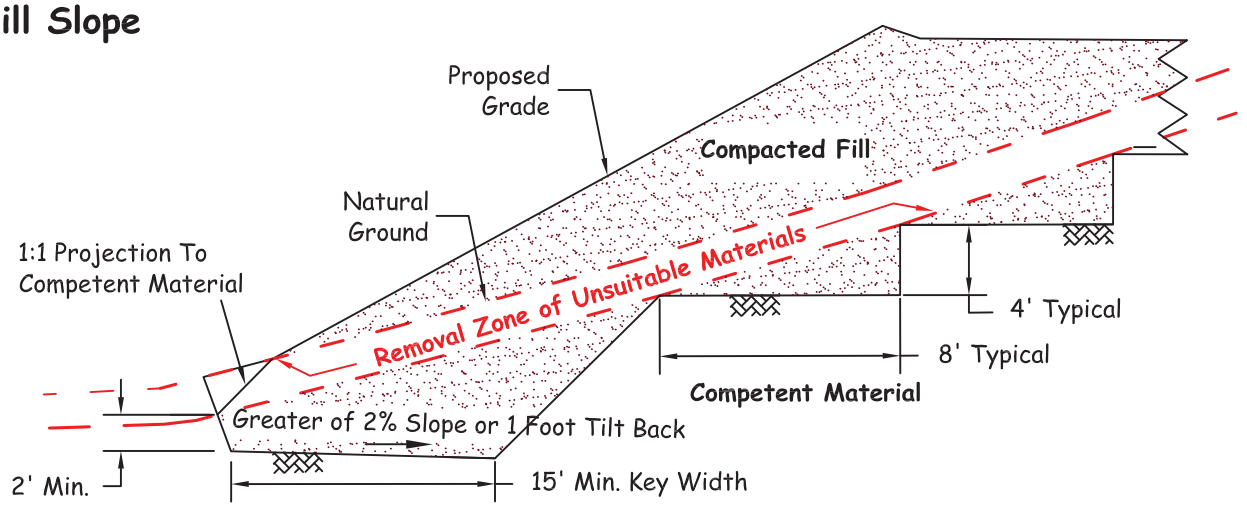
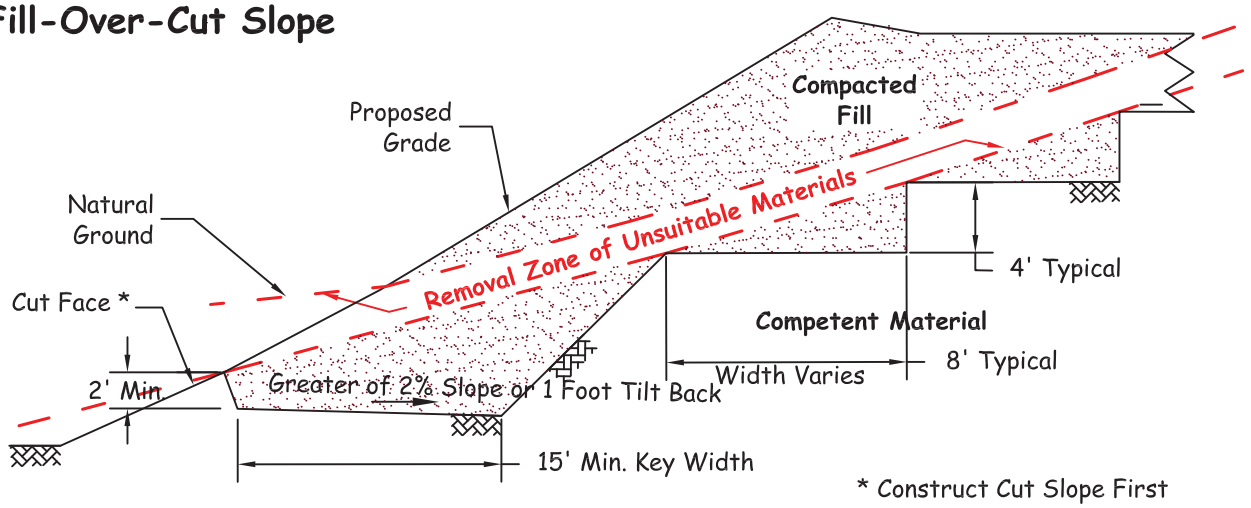
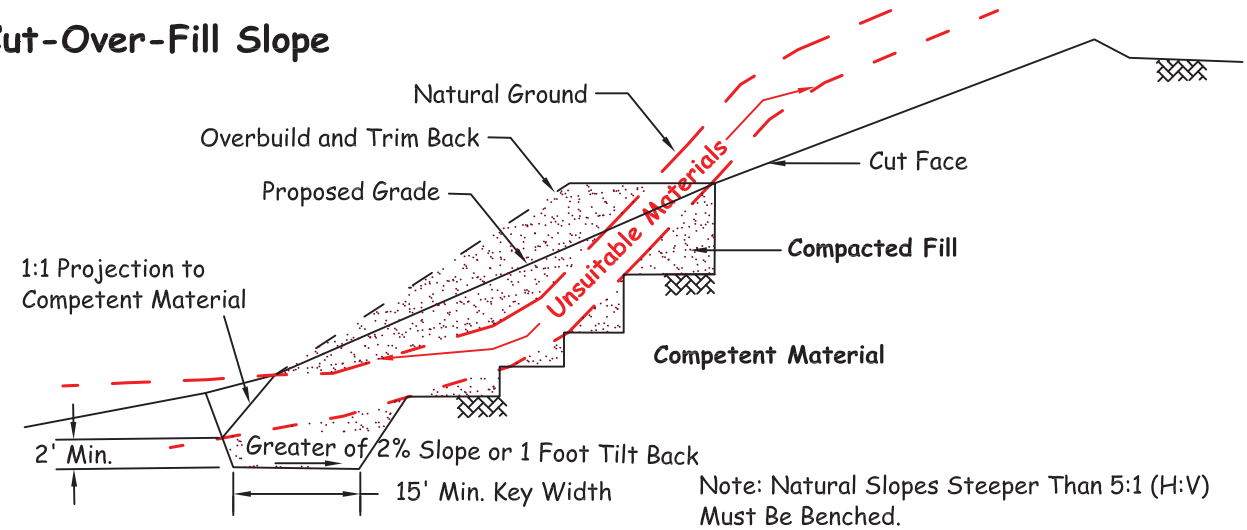
Fill Slope



Fill-Over-Cut Slope



Cut-Over-Fill Slope



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KEYING AND BENCHING

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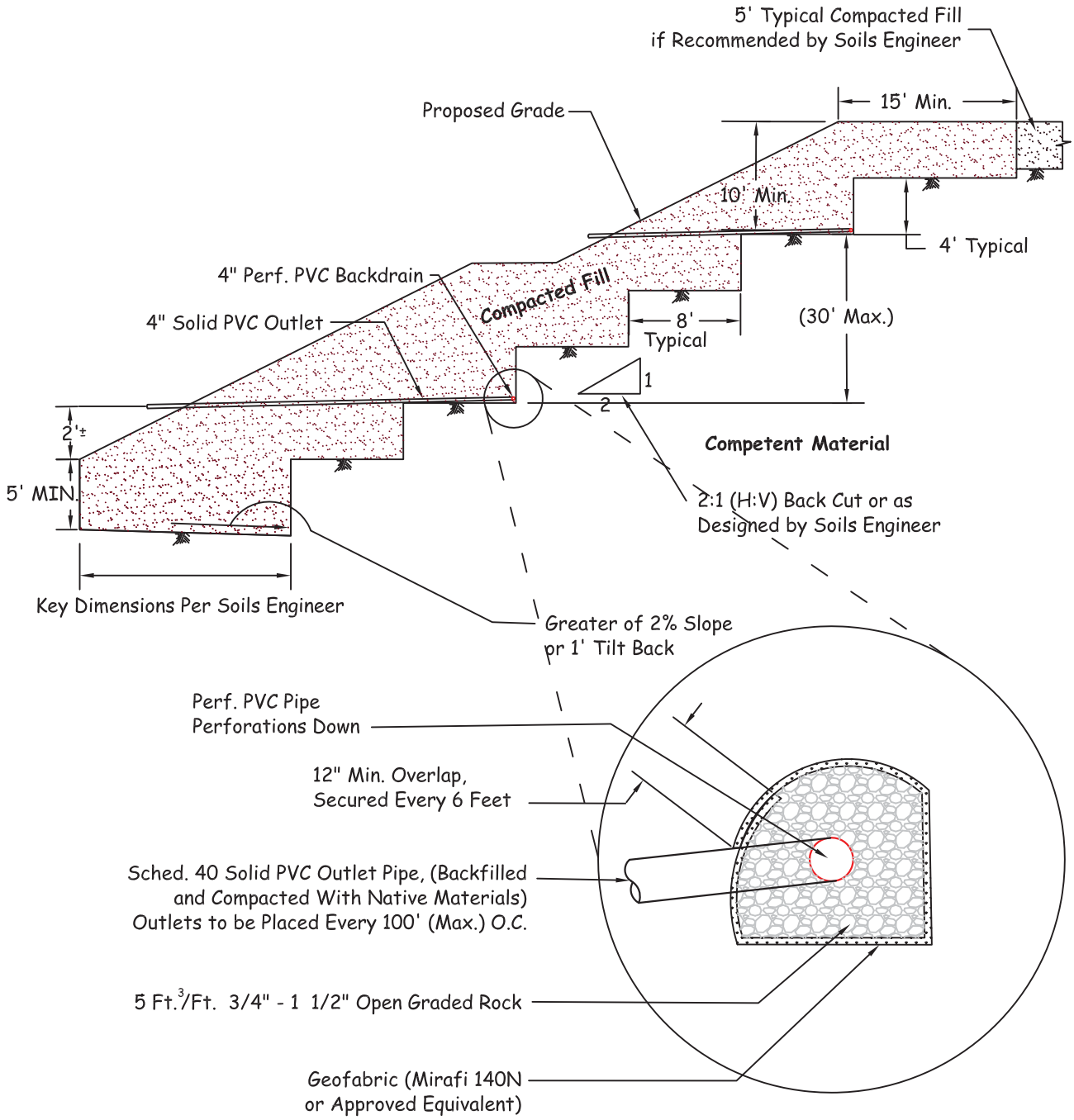

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TYPICAL BUTTRESS DETAIL

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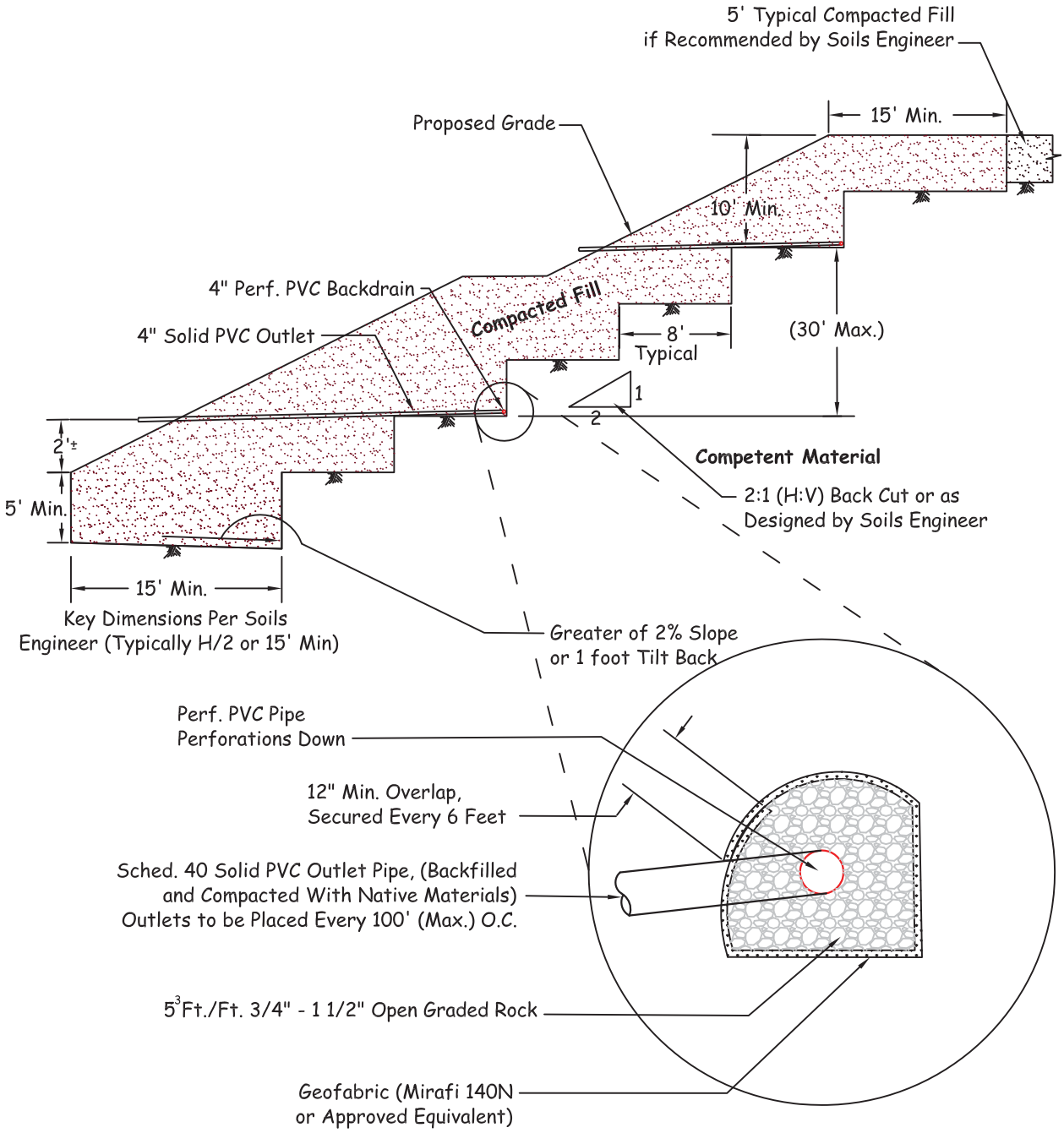

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TYPICAL STABILIZATION FILL DETAIL

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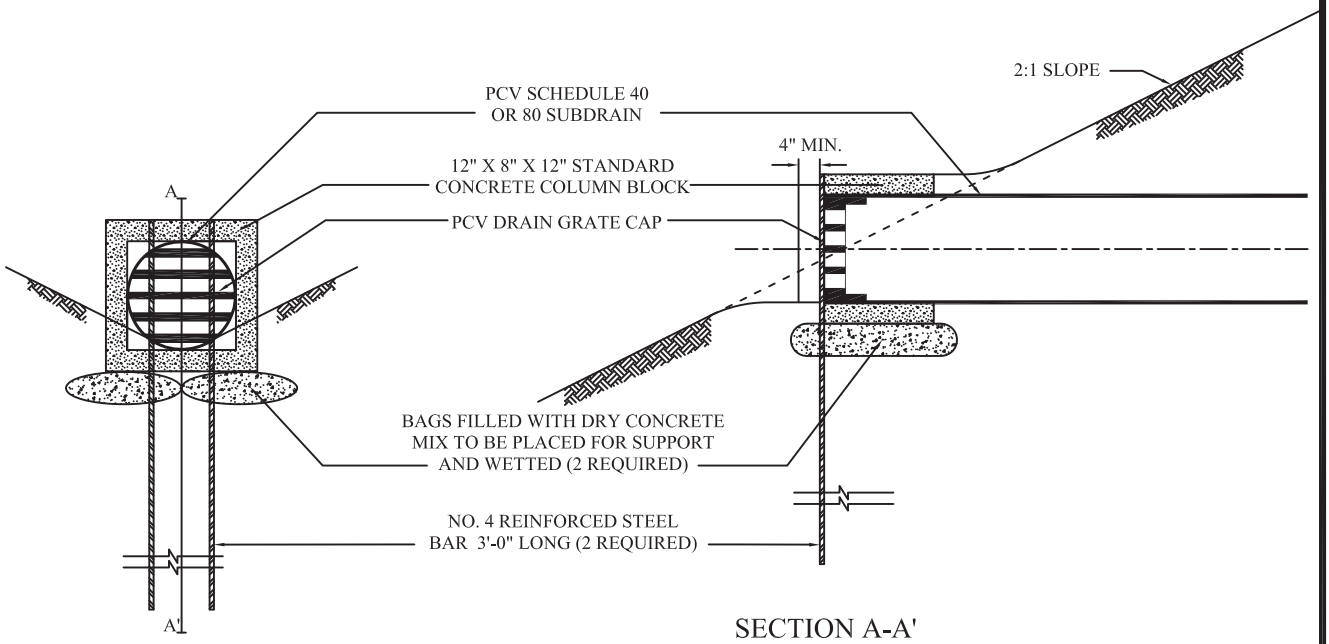
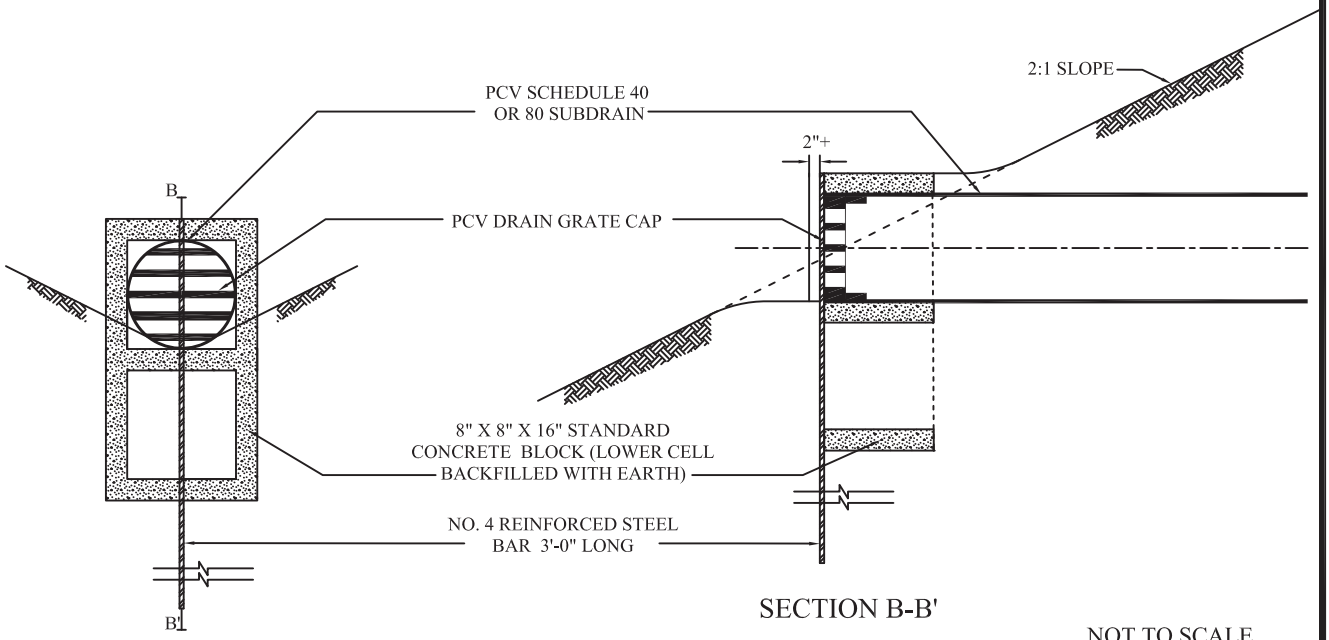
SUBDRAIN OUTLET MARKER -6" & 8" PIPE



SECTION A-A'

SUBDRAIN OUTLET MARKER -4" PIPE



SECTION B-B'

NOT TO SCALE

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SUBDRAIN OUTLET MARKER DETAIL

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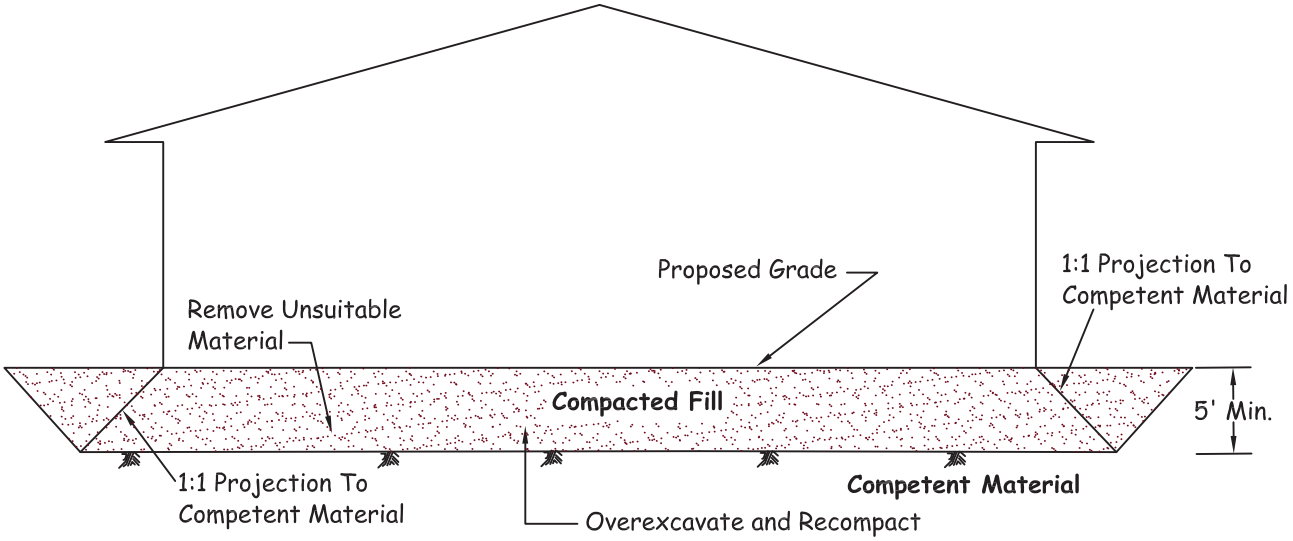
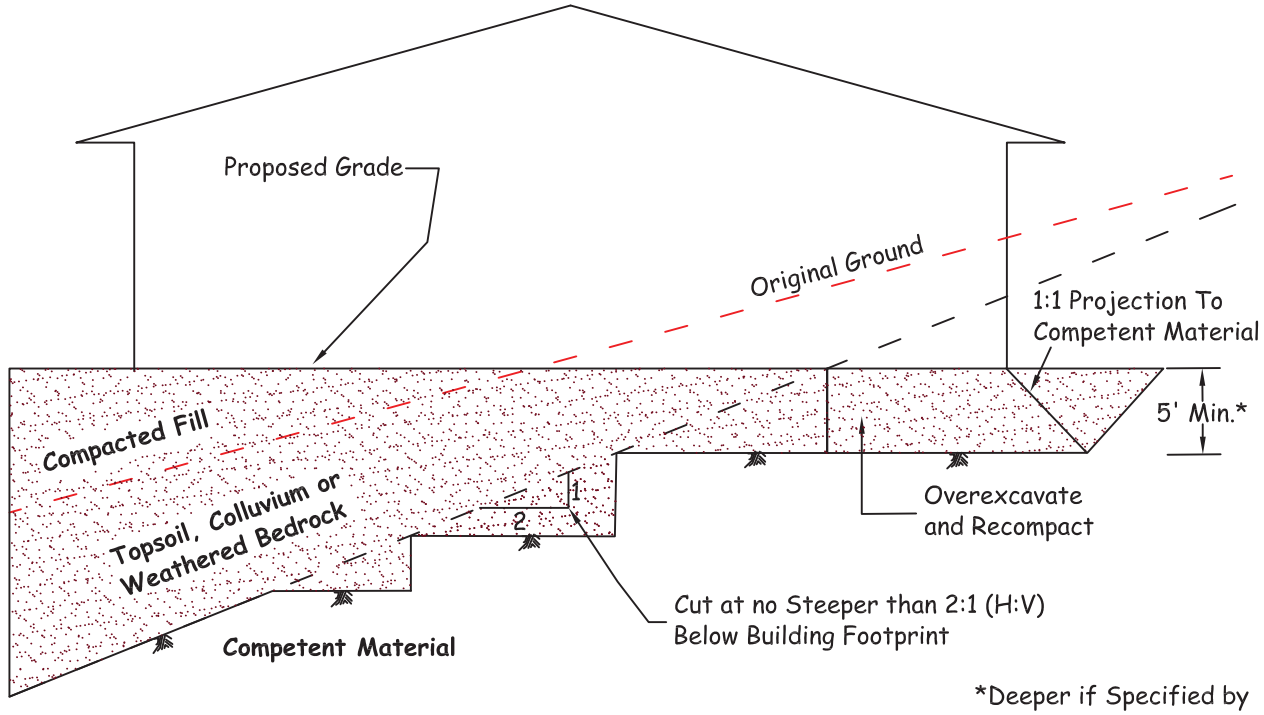
Cut Lot
(Exposing Unsuitable Soils at Design Grade)



Note 1: Removal Bottom Should be Graded With Minimum 2% Fall Towards Street or Other Suitable Area (as Determined by Soils Engineer) to Avoid Ponding Below Building

Note 2: Where Design Cut Lots are Excavated Entirely Into Competent Material, Overexcavation May Still be Required for Hard-Rock Conditions or for Materials With Variable Expansion Characteristics.

Cut/Fill Transition Lot



*Deeper if Specified by Soils Engineer

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CUT AND TRANSITION LOT OVEREXCAVATION DETAIL

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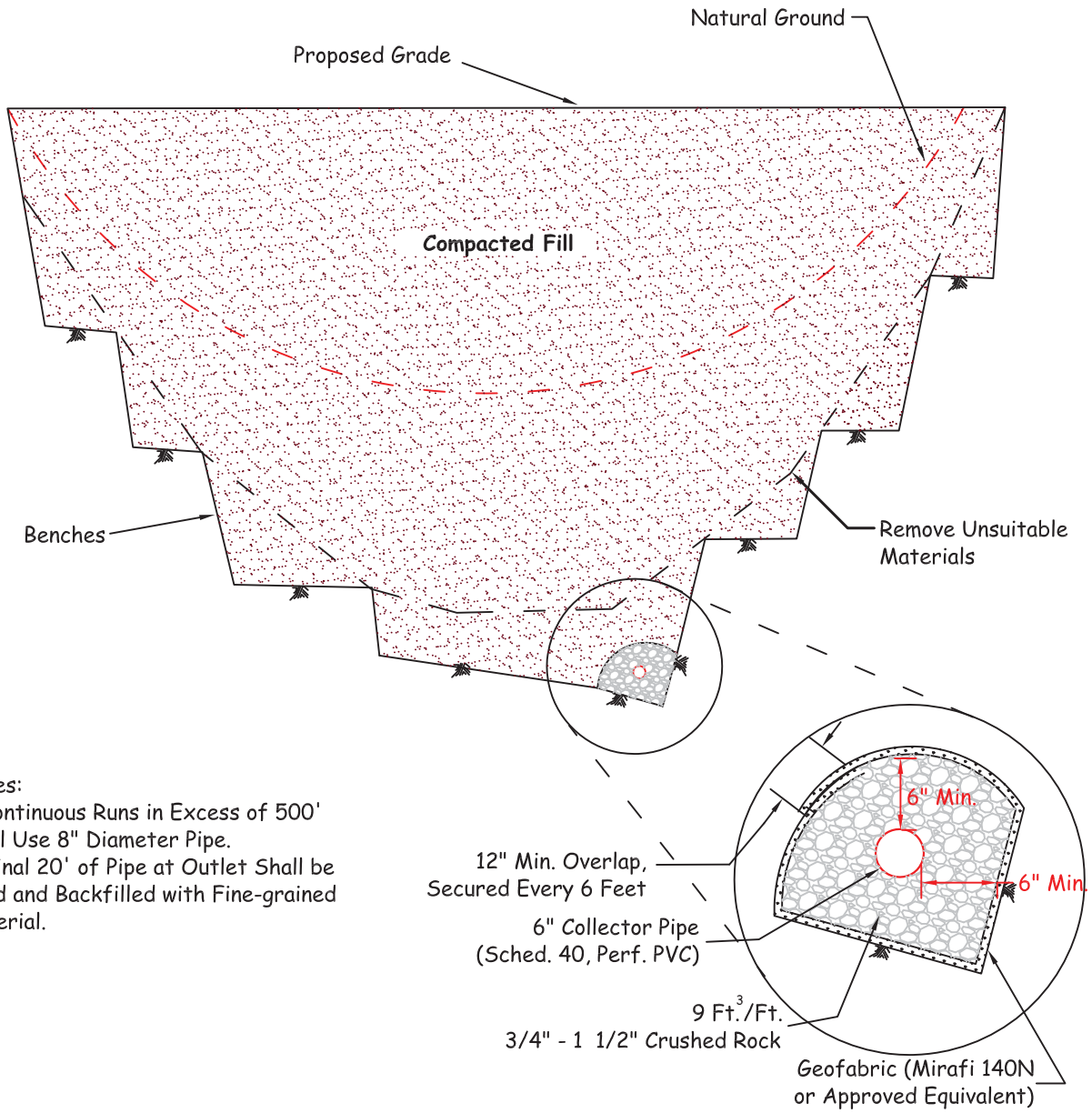
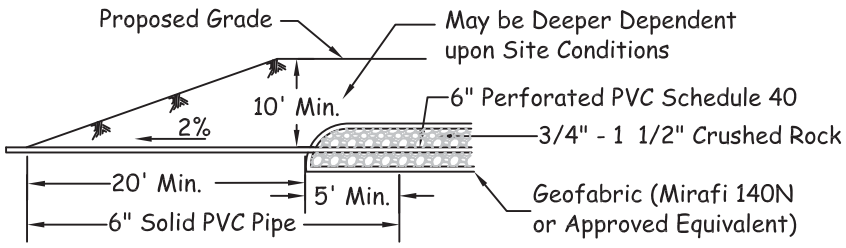


Notes:
1) Continuous Runs in Excess of 500' Shall Use 8" Diameter Pipe.
2) Final 20' of Pipe at Outlet Shall be Solid and Backfilled with Fine-grained Material.

Proposed Outlet Detail



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CANYON SUBDRAINS

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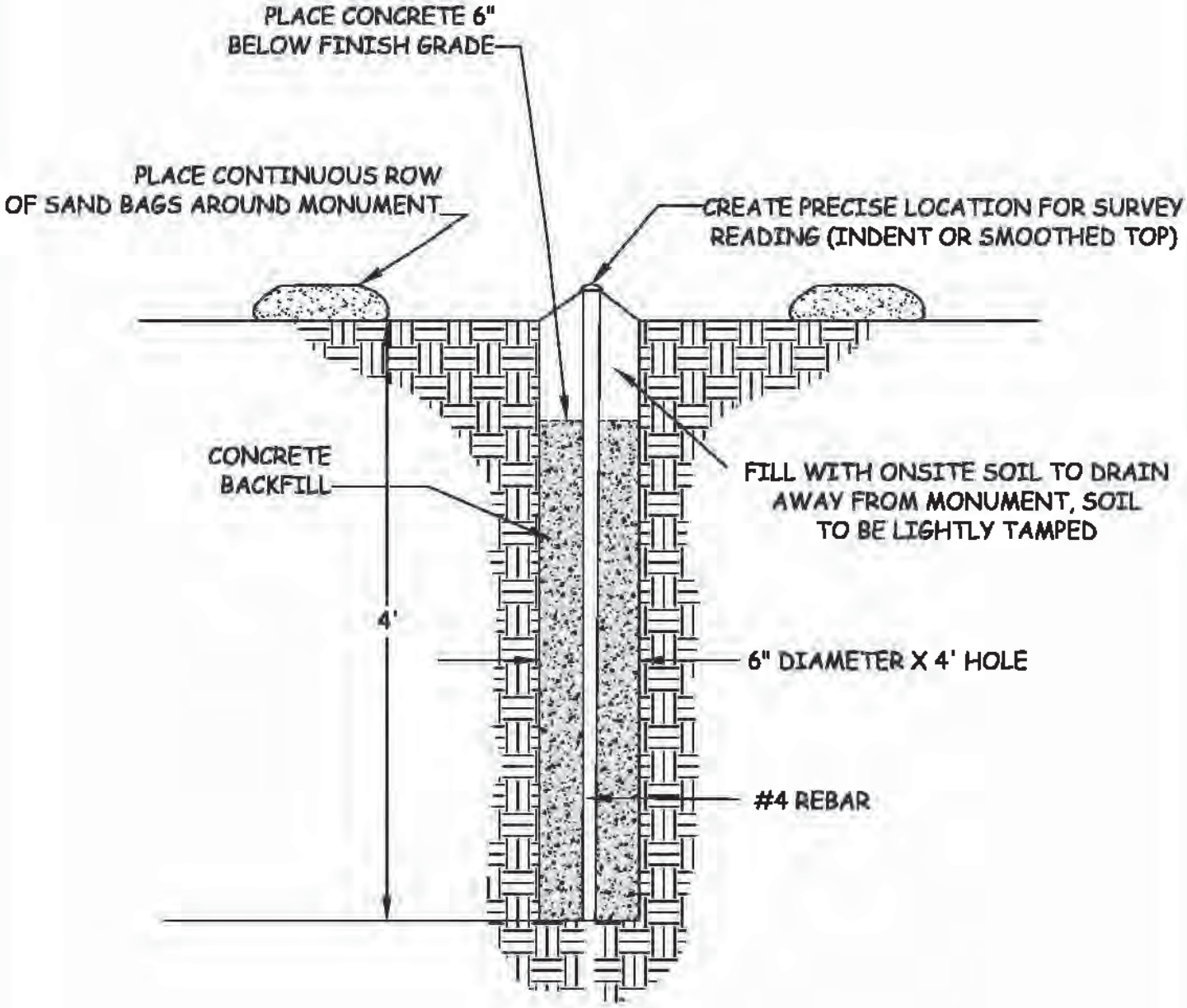

NO CONSTRUCTION EQUIPMENT WITHIN 25 FEET OF ANY INSTALLED SETTLEMENT MONUMENTS

Revised 11/15

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TYPICAL SURFACE SETTLEMENT MONUMENT

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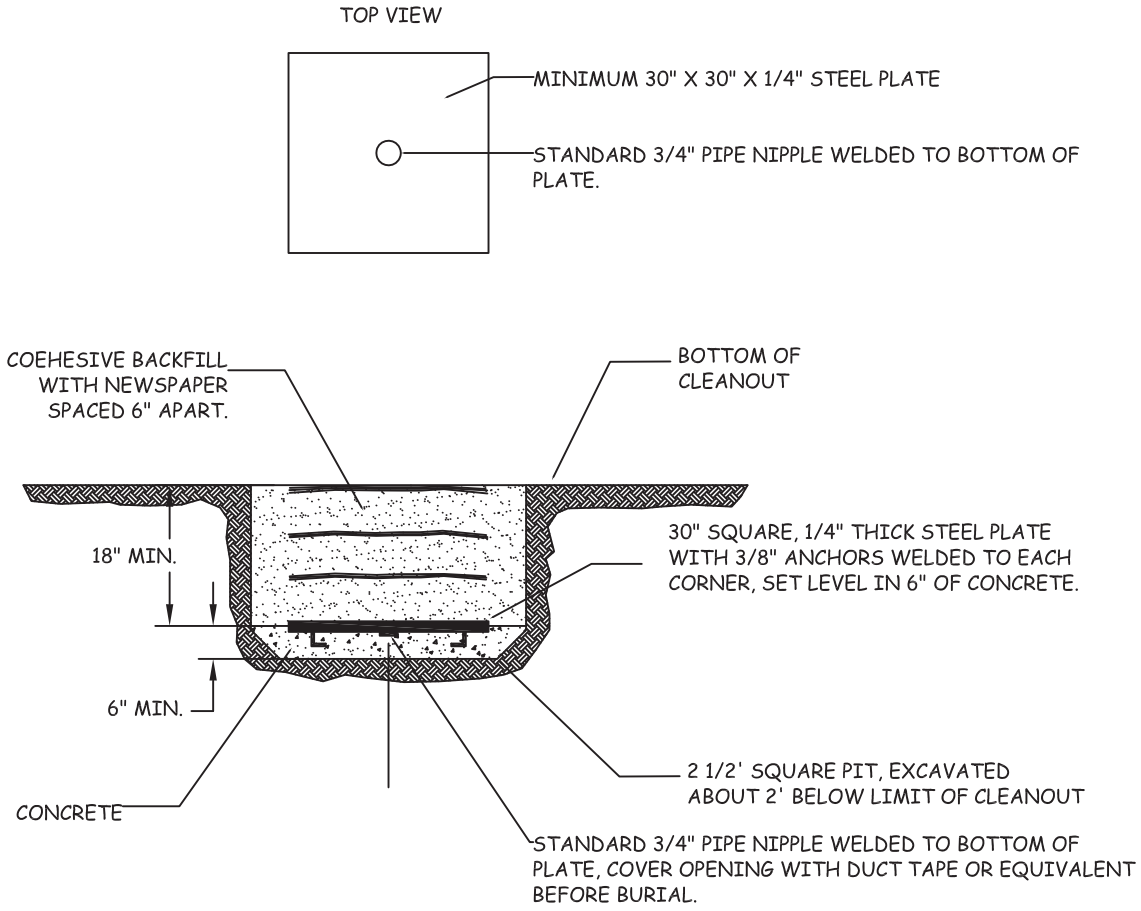

1. SURVEY FOR HORIZONTAL AND VERTICAL LOCATION TO NEAREST .01 INCH PRIOR TO BACKFILL USING KNOW LOCATIONS THAT WILL REMAIN INTACT DURING THE DURATION OF THE MONITORING PROGRAM. KNOW POINTS EXPLICITELY NOT ALLOWED ARE THOSE LOCATED ON FILL OR THAT WILL BE DESTROYED DURING GRADING.
2. IN THE EVENT OF DAMAGE TO SETTLEMENT PLATE DURING GRADING, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE GEOTECHNICAL ENGINEER AND SHALL BE RESPONSIBLE FOR RESTORING THE SETTLEMENT PLATES TO WORKING ORDER.
3. DRILL TO RECOVER AND ATTACH RISER PIPE.

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TYPICAL SETTLEMENT PLATE AND RISER

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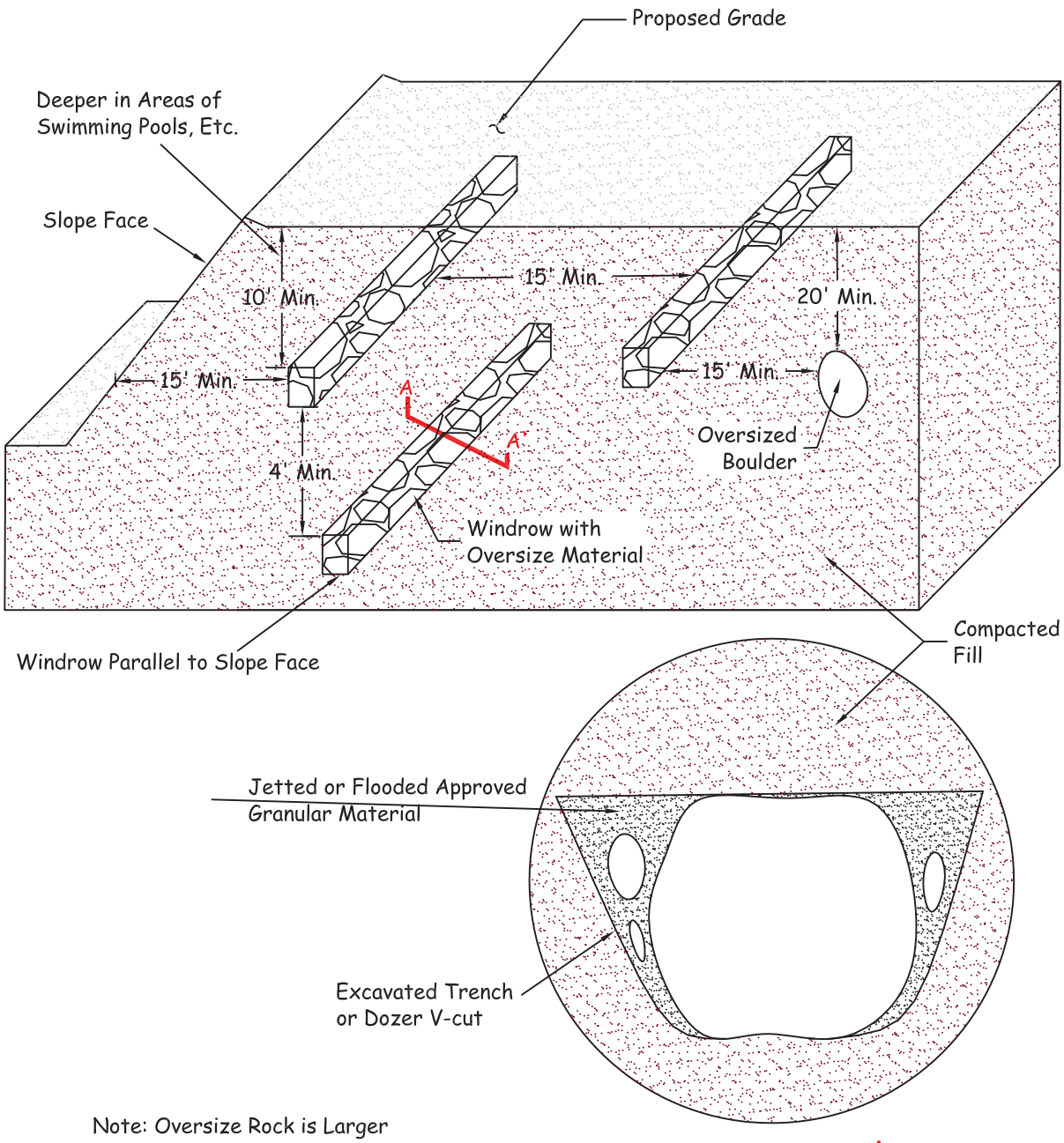

Note: Oversize Rock is Larger than 8" in Maximum Dimension.

Section A-A'

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OVERSIZE ROCK DISPOSAL DETAIL

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NorCal Engineering

Soils and Geotechnical Consultants
10641 Humbolt Street Los Alamitos, CA 90720
(562) 799-9469 Fax (562) 799-9459

July 16, 2014 Project Number 17549-14

Vogel Properties, Inc.
300 Paseo Tesoro
Walnut, California 91789

Attn: Bill Vogel

RE: **SOIL INFILTRATION STUDY** - Proposed Warehouse Development - Located at the Southwest Corner of Indian Avenue and Grove View Road, in the City of Moreno Valley, California

Dear Mr. Vogel:
Pursuant to your request, this firm has performed a Soil Infiltration Study for the above referenced project. The purpose of this study is to evaluate the feasibility of on-site drainage disposal systems at various locations on the subject lots. The scope of current work included the following: 1) site reconnaissance; 2) subsurface geotechnical exploration; 3) double ring infiltration testing at seventeen locations; 4) engineering analysis of field test data; and 5) preparation of this report.

It is proposed to install three detention/infiltration basins to dispose of on-site water runoff. Herdman Rierson Architecture and Design provided us with locations and depths of tests on their Site Plan – Scheme 2, dated May 8, 2014.

Site Description

The rectangular shaped parcel is located west of Indian Street and south of the proposed Grove View Road extension, in the City of Moreno Valley as shown on the attached Figure 1. Vacant land is located further to the north and to the west of the site while an existing concrete tilt-up building with associated pavement borders to the south.

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The property is currently vacant. Low vegetation and occasional trees cover much of the site and a gravel/dirt road extends along the south property line. The site is relatively level with sheetflow directed in an easterly direction toward the roadway.

Field Exploration

The excavations were completed on June 28, 2014 and testing was completed on that day and on July 1st. The testing consisted of using the double ring infiltrometer at all seven locations to determine the infiltration rate of the proposed retention/infiltration basins. The locations of the tests are shown on the attached Figure 2. The test locations were excavated by extension backhoe to depths ranging from 2 to 6 feet below existing ground surface (bgs). Excavations were trimmed at 1:1 (horizontal to vertical) inclinations in order to provide safe entry into the deeper excavations. No significant caving occurred to the depths of these test excavations. Detailed description of the subsurface soils is shown on the attached test excavations logs in Appendix B. The excavations were backfilled at the conclusion of testing with the soil cuttings and tamped, but were *not* compacted to 90% relative compaction.

In general, the test areas were found to be underlain by minor amounts of surficial fill and native soils. The soils at test locations consisted of sandy, clayey SILTS. These soils were noted to be medium stiff to stiff and damp to moist. Sand, silt and clay content varied slightly with depth of explorations.

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Groundwater

Test borings placed as a part of Geotechnical Investigation (report not issued at this date) extended to a maximum depth of 51.5 feet below grade. Groundwater was not encountered in *any* of our test explorations and is not expected to be a factor in site development. Based upon nearby groundwater well data, historic high groundwater in the vicinity has been encountered on the order of 30 feet bgs.

Infiltration Test Procedure and Results

The infiltration test consisted of the double ring infiltration test per ASTM Method D 3385. The double ring infiltrometer method consists of driving two open cylinders, one inside the other, into the ground, partially filling the ring with water or other liquid, and then maintaining the liquid at a constant level. The volume of liquid added to the inner ring, to maintain the liquid level constant is the measure of the volume of liquid that infiltrates into the soil.

The volume infiltrated during timed intervals is converted to an incremental infiltration velocity, usually expressed in centimeters per hour or inches per hour and plotted verses elapsed time. The maximum-steady state or average incremental infiltration velocity, depending on the purpose/application of the test is equivalent to the infiltration rate.

Along the bottom of the infiltration test pits, dual infiltration rings were inserted 7 cm vertically into the soil by an impact-absorbing hammer. Guelph tubes, also referred to as bubblers were installed to maintain constant water level in each of the rings. Water levels were maintained at a constant level in both the inner ring and annular space between rings throughout the test, to prevent flow of water from one ring to the other.

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The volume of liquid used during each measured time interval was converted into an incremental infiltration velocity of both the inner ring in the annular space using the following equations:

For the inner ring calculated as follows:

$Vir=\Delta Vir/(Air\Delta t)$

where:

Vir = inner ring incremental infiltration velocity, cm/hr

ΔVir = volume of water used during time interval to maintain constant head in the inner ring, cm^3

Air = internal area of the inner ting, cm^2

Δt = time interval, hr

The last reading obtained was used for design purposes in each of the basin. The testing data sheets are attached in Appendix B and summarized in the *Discussion of Results* section below.

Discussion of Results

The use of on-site disposal system by means of retention/infiltration basins appears to be geotechnically feasible for future development provided the very low rates given below are utilized in the basin design. Based upon the results of our testing, the following design rates should be used in the infiltration areas:

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Test No.	Depth (feet bgs)	Soil Type	Infiltration Rate (cm/hr)	Infiltration Rate (in/hr)	Design (in/hr)
Area 1					
T-1	2.0	sandy, clayey SILT	1.7	0.68	0.5
T-2	2.0	sandy, clayey SILT	0.9	0.35	
Area 2					
T-3	6.0	sandy, clayey SILT	0.4	0.15	0.5
T-4	6.0	sandy, clayey SILT	2.1	0.85	
Area 3					
T-5	6.0	sandy, clayey SILT	0.3	0.12	0.15
T-6	6.0	sandy, clayey SILT	0.2	0.08	
T-7	6.0	sandy, clayey SILT	0.6	0.24	

It is our opinion that the site is suitable for stormwater infiltration without increasing the potential of settlement of proposed and existing structures or adversely affecting retaining/basement walls located either on or adjacent to the subject site. In addition, the potential for hydro-consolidation and the susceptibility for any ground settlements are considered low. All systems shall meet the California Regional Water Quality Control Board (CRWQCB) requirements.

Closure

The recommendations and conclusions contained in this report are based upon the soil conditions uncovered in our test excavations. No warranty of the soil condition between our excavations is implied. NorCal Engineering should be notified for possible further recommendations if unexpected to unfavorable conditions are encountered during construction phase. This firm should have the opportunity to review the final plans to verify that all our recommendations are incorporated.

This report and all conclusions are subject to the review of the controlling authorities for the project. Our representative should be present during the grading operations and construction phase to certify that such recommendations are complied within the field.

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

This infiltration study has been conducted in a manner consistent with the level of care and skill exercised by members of our profession currently practicing under similar conditions in the Southern California area. All work was performed under the supervision of the Geotechnical Engineer. No other warranty, expressed or implied is made. No other warranty, expressed or implied is made.

We appreciate this opportunity to be of service to you. If you have any further questions, please do not hesitate to contact the undersigned.

Respectfully submitted,
NORCAL ENGINEERING



Keith D. Tucker
Project Engineer
R.G.E. 841

Mark A. Burkholder
Project Manager

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

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Appendix A

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VICINITY MAP

FIGURE 1

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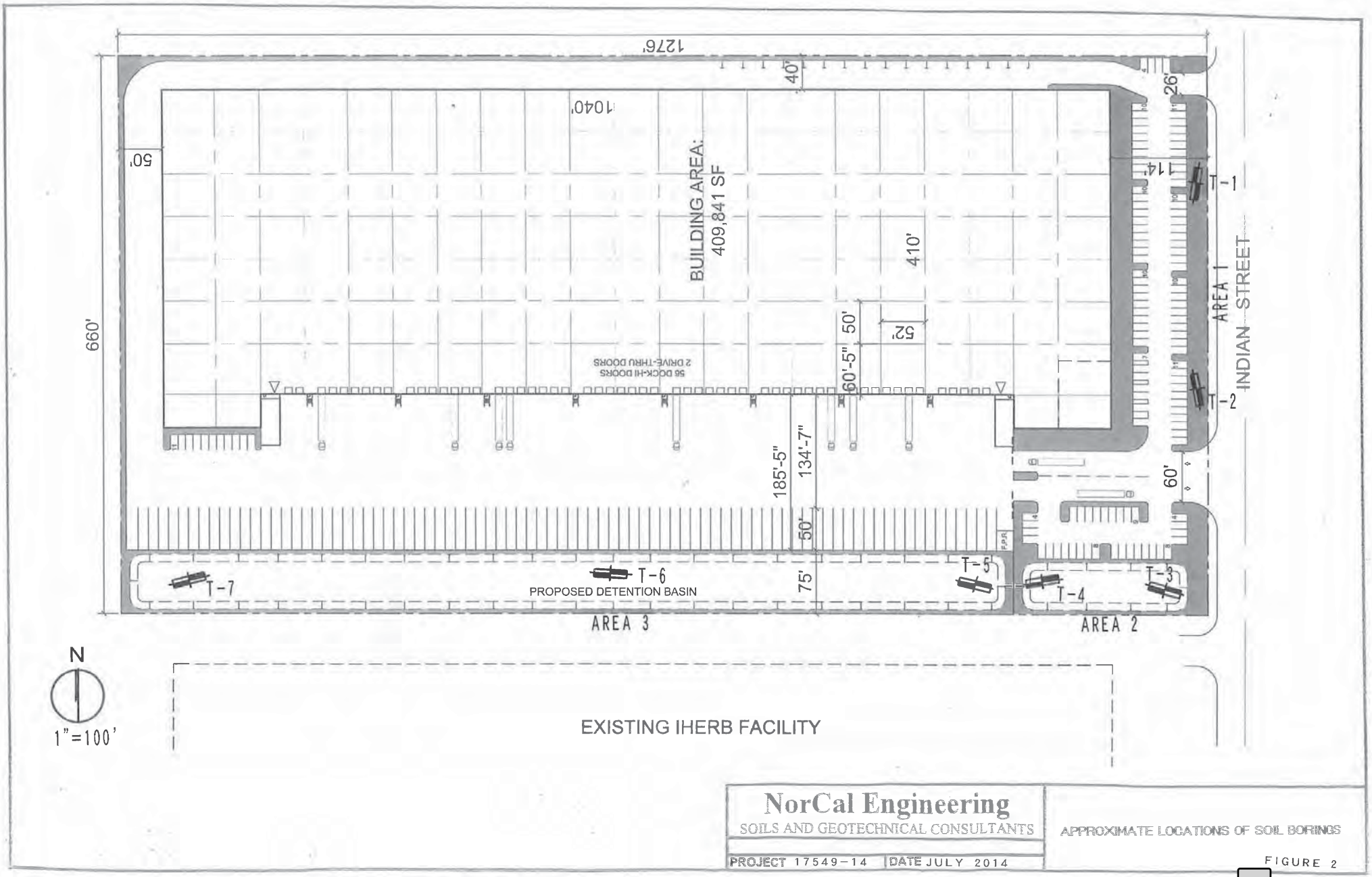

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PROJECT 17549-14 | DATE JULY 2014

APPROXIMATE LOCATIONS OF SOIL BORINGS

FIGURE 2

E.2.u

Appendix B

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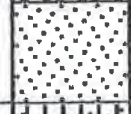
MAJOR DIVISION			GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL, SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	SAND AND SANDY SOILS	CLEAN SAND (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SANDS WITH FINE (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND-SILT MIXTURES
				SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

UNIFIED SOIL CLASSIFICATION SYSTEM

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Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

KEY:

- ■ Indicates 2.5-inch Inside Diameter. Ring Sample.
- ⊠ Indicates 2-inch OD Split Spoon Sample (SPT).
- ⧅ Indicates Shelby Tube Sample.
- ◫ Indicates No Recovery.
- ◧ Indicates SPT with 140# Hammer 30 in. Drop.
- ⊠ Indicates Bulk Sample.
- ◩ Indicates Small Bag Sample.
- ◨ Indicates Non-Standard
- ⧓ Indicates Core Run.

COMPONENT PROPORTIONS

DESCRIPTIVE TERMS	RANGE OF PROPORTION
Trace	1 - 5%
Few	5 - 10%
Little	10 - 20%
Some	20 - 35%
And	35 - 50%

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel	3 in to No 4 (4.5mm)
Coarse gravel	3 in to 3/4 in
Fine gravel	3/4 in to No 4 (4.5mm)
Sand	No. 4 (4.5mm) to No. 200 (0.074mm)
Coarse sand	No. 4 (4.5 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074 mm)

MOISTURE CONTENT

DRY	Absence of moisture, dusty, dry to the touch.
DAMP	Some perceptible moisture; below optimum
MOIST	No visible water; near optimum moisture content
WET	Visible free water, usually soil is below water table.

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N -VALUE

COHESIONLESS SOILS		COHESIVE SOILS		
Density	N (blows/ft)	Consistency	N (blows/ft)	Approximate Undrained Shear Strength (psf)
Very Loose	0 to 4	Very Soft	0 to 2	< 250
Loose	4 to 10	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	Stiff	8 to 15	1000 - 2000
Very Dense	over 50	Very Stiff	15 to 30	2000 - 4000
		Hard	over 30	> 4000

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Vogel Properties, Inc.
17549-14

Log of Trench T-1

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing
0		SURFICIAL FILL SOILS					
		Sandy clayey SILT with occasional gravel, roots, minor debris					
		Brown, soft, damp					
		NATURAL SOILS					
		Sandy clayey SILT					
5		Brown, medium stiff to stiff, damp					
		Boring completed at depth of 2'					
10							
15							
20							
25							
30							
35							

GWT not encountered

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Vogel Properties, Inc.
17549-14

Log of Trench T-2

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing
0		SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel, roots, minor debris Brown, soft, damp					
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp					
5		Boring completed at depth of 2'					
10							
15							
20							
25							
30							
35							

GWT not encountered

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Vogel Properties, Inc.
17549-14

Log of Trench T-3

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing
0		SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel Brown, soft, damp					
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp to moist					
5		GWT not encountered					
		Boring completed at depth of 6'					
10							
15							
20							
25							
30							
35							

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Vogel Properties, Inc.
17549-14

Log of Trench T-4

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing
0		SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel Brown, soft, damp					
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp to moist					
5		GWT not encountered					
		Boring completed at depth of 6'					
10							
15							
20							
25							
30							
35							

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Vogel Properties, Inc.
17549-14

Log of Trench T-5

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing
0		SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel Brown, soft, damp					
		GWT not encountered					
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp to moist					
5		Boring completed at depth of 6'					
10							
15							
20							
25							
30							
35							

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Vogel Properties, Inc.
17549-14

Log of Trench T-6

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing
0		SURFICIAL FILL SOILS					
		Sandy clayey SILT with occasional gravel					
		Brown, soft, damp					
		NATURAL SOILS					
5		Sandy clayey SILT					
		Brown, medium stiff to stiff, damp to moist					
		Boring completed at depth of 6'					
10							
15							
20							
25							
30							
35							

GWT not encountered

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Vogel Properties, Inc.
17549-14

Log of Trench T-7

Boring Location: Indian & Grove, Moreno Valley

Date of Drilling: 6/28/14 | Groundwater Depth: None Encountered

Drilling Method: Backhoe

Hammer Weight: | Drop:

Surface Elevation: Not Measured

Depth (feet)	Lith-ology	Material Description	Samples: Type	Samples: Blow Counts	Laboratory: Moisture	Laboratory: Dry Density	Laboratory: % Passing
0		SURFICIAL FILL SOILS Sandy clayey SILT with occasional gravel, roots, minor debris Brown, soft, damp					
		NATURAL SOILS Sandy clayey SILT Brown, medium stiff to stiff, damp to moist					
5		GWT not encountered					
		Boring completed at depth of 6'					
10							
15							
20							
25							
30							
35							

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SOILS AND GEOTECHNICAL CONSULTANTS
10641 HUMBOLT STREET LOS ALAMITOS, CA 90720
(562)799-9469 FAX (562)799-9459

Project: Vogel Properties
Project No.: 17549-14
Date: 6/28/14

Test No.: T-1
Depth: 2'
Tested By: D.R.

	Time (hr/min)	Change Time (min)	Cumulative Time (min)	Inner Ring Reading (cm)	Inner Ring Change (cm)	Inner Ring Flow (cc)	Outer Ring Reading (cm)	Outer Ring Change (cm)	Outer Ring Flow (cc)	Inner Ring Inf Rate (cm/hr)	Outer Ring Inf Rate (cm/hr)	Inner Ring Inf Rate (ft/hr)
1	8:30			137.2			260.2					
	8:37	7	7	138.0	0.8		261.1	0.9				
2	8:37			138.0			261.1					
	8:44	7	14	138.5	0.5		261.5	0.4				
3	8:44			136.7			259.8					
	8:51	7	21	137.1	0.4		260.3	0.5				
4	8:51			137.1			260.3					
	8:58	7	28	137.5	0.4		260.6	0.3				
5	8:58			137.5			260.6					
	9:05	7	35	137.9	0.4		260.9	0.3				
6	9:05			137.9			260.9					
	9:12	7	42	138.1	0.2		261.2	0.3		1.7	2.6	
7	9:12			138.1			261.2					
	9:19	7	49	138.3	0.2		261.5	0.3		1.7	2.6	
8	9:19			138.3			261.5					
	9:26	7	56	138.5	0.2		261.7	0.2		1.7	1.7	
9	9:26			136.1			259.8					
	9:33	7	63	136.3	0.2		260.0	0.2		1.7	1.7	
10	9:33			136.3			260.0					
	9:40	7	70	136.5	0.2		260.2	0.2		1.7	1.7	
11	9:40			136.5			260.2					
	9:47	7	77	136.7	0.2		260.4	0.2		1.7	1.7	
12	9:47			136.7			260.4					
	9:54	7	84	136.9	0.2		260.6	0.2		1.7	1.7	

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(562)799-9469 FAX (562)799-9459

Project: Vogel Properties
Project No.: 17549-14
Date: 6/28/14

Test No.: T-2
Depth: 2'
Tested By: D.R.

	Time (hr/min)	Change Time (min)	Cumulative Time (min)	Inner Ring Reading (cm)	Inner Ring Change (cm)	Inner Ring Flow (cc)	Outer Ring Reading (cm)	Outer Ring Change (cm)	Outer Ring Flow (cc)	Inner Ring Inf Rate (cm/hr)	Outer Ring Inf Rate (cm/hr)	Inner Ring Inf Rate (ft/hr)
1	6:42			130.6			254.2					
	6:49	7	7	131.3	0.7		254.8	0.6				
2	6:49			131.3			254.8					
	6:56	7	14	131.5	0.2		255.2	0.4				
3	6:56			131.5			255.2					
	7:03	7	21	131.8	0.3		255.5	0.3				
4	7:03			131.8			255.5					
	7:10	7	28	131.8	0.0		255.7	0.2				
5	7:10			131.8			255.7					
	7:17	7	35	131.9	0.1		255.9	0.2				
6	7:17			131.9			255.9					
	7:24	7	42	132.0	0.1		256.1	0.2		0.9	1.7	
7	7:24			132.0			256.1					
	7:31	7	49	132.1	0.1		256.2	0.1		0.9	0.9	
8	7:31			132.1			256.2					
	7:38	7	56	132.2	0.1		256.3	0.1		0.9	0.9	
9	7:38			132.2			256.3					
	7:45	7	63	132.3	0.1		256.5	0.2		0.9	1.7	
10	7:45			132.3			256.5					
	7:52	7	70	132.4	0.1		256.7	0.2		0.9	1.7	
11	7:52			132.4			256.7					
	7:59	7	77	132.5	0.1		256.8	0.1		0.9	0.9	
12	7:59			132.5			256.8					
	8:06	7	84	132.6	0.1		256.9	0.1		0.9	0.9	

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(562)799-9469 FAX (562)799-9459

Project: Vogel Properties
Project No.: 17549-14
Date: 6/28/14

Test No.: T-3
Depth: 6'
Tested By: D.R.

	Time (hr/min)	Change Time (min)	Cumulative Time (min)	Inner Ring Reading (cm)	Inner Ring Change (cm)	Inner Ring Flow (cc)	Outer Ring Reading (cm)	Outer Ring Change (cm)	Outer Ring Flow (cc)	Inner Ring Inf Rate (cm/hr)	Outer Ring Inf Rate (cm/hr)	Inner Ring Inf Rate (ft/hr)
1	10:20			136.7			259.7					
	10:27	7	7	136.9	0.2		260.3	0.6				
2	10:27			136.9			260.3					
	10:34	7	14	137.0	0.1		260.5	0.2				
3	10:34			137.0			260.5					
	10:41	7	21	137.0	0.1		260.8	0.3				
4	10:41			137.0			260.8					
	10:48	7	28	137.1	0.1		261.0	0.2				
5	10:48			137.1			261.0					
	10:55	7	35	137.1	0.0		261.2	0.2				
6	10:55			137.1			261.2					
	11:02	7	42	137.1	0.0		261.4	0.2		0.0	1.7	
7	11:02			137.1			261.4					
	11:09	7	49	137.2	0.1		261.7	0.3		0.9	2.6	
8	11:09			137.2			261.7					
	11:16	7	56	137.2	0.0		261.9	0.2		0.0	1.7	
9	11:16			137.2			261.9					
	11:23	7	63	137.3	0.1		262.1	0.2		0.9	1.7	
10	11:23			137.3			262.1					
	11:30	7	70	137.3	0.0		262.2	0.1		0.0	0.9	
11	11:30			137.3			262.2					
	11:37	7	77	137.4	0.1		262.3	0.1		0.9	0.9	
12	11:37			137.4			262.3					
	11:44	7	84	137.4	0.0		262.3	0.0		0.0	0.0	

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SOILS AND GEOTECHNICAL CONSULTANTS
10641 HUMBOLT STREET LOS ALAMITOS, CA 90720
(562)799-9469 FAX (562)799-9459

Project: Vogel Properties
Project No.: 17549-14
Date: 6/28/14

Test No.: T-4
Depth: 6'
Tested By: D.R.

	Time (hr/min)	Change Time (min)	Cumulative Time (min)	Inner Ring Reading (cm)	Inner Ring Change (cm)	Inner Ring Flow (cc)	Outer Ring Reading (cm)	Outer Ring Change (cm)	Outer Ring Flow (cc)	Inner Ring Inf Rate (cm/hr)	Outer Ring Inf Rate (cm/hr)	Inner Ring Inf Rate (ft/hr)
1	12:26			138.0			260.3					
	12:33	7	7	138.7	0.7		260.9	0.6				
2	12:33			138.7			260.9					
	12:40	7	14	139.0	0.3		261.3	0.4				
3	12:40			137.9			259.8					
	12:47	7	21	138.2	0.3		260.1	0.3				
4	12:47			138.2			260.1					
	12:54	7	28	138.4	0.2		260.4	0.3				
5	12:54			138.4			260.4					
	1:01	7	35	138.7	0.3		260.7	0.3				
6	1:01			138.7			260.7					
	1:08	7	42	139.0	0.3		261.0	0.3		2.6	2.6	
7	1:08			139.0			261.0					
	1:15	7	49	139.3	0.3		261.2	0.2		2.6	1.7	
8	1:15			139.3			261.2					
	1:22	7	56	139.5	0.2		261.5	0.3		1.7	2.6	
9	1:22			139.5			261.5					
	1:29	7	63	139.8	0.3		261.8	0.3		2.6	2.6	
10	1:29			139.8			261.8					
	1:36	7	70	140.0	0.2		262.0	0.2		1.7	1.7	
11	1:36			140.0			262.0					
	1:43	7	77	140.2	0.2		262.2	0.2		1.7	1.7	
12	1:43			140.2			262.2					
	1:50	7	84	140.4	0.2		262.4	0.2		1.7	1.7	

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NorCal Engineering

SOILS AND GEOTECHNICAL CONSULTANTS
10641 HUMBOLT STREET LOS ALAMITOS, CA 90720
(562)799-9469 FAX (562)799-9459

Project: Vogel Properties
Project No.: 17549-14
Date: 6/28/14

Test No.: T-5
Depth: 6'
Tested By: J.S.

	Time (hr/min)	Change Time (min)	Cumulative Time (min)	Inner Ring Reading (cm)	Inner Ring Change (cm)	Inner Ring Flow (cc)	Outer Ring Reading (cm)	Outer Ring Change (cm)	Outer Ring Flow (cc)	Inner Ring Inf Rate (cm/hr)	Outer Ring Inf Rate (cm/hr)	Inner Ring Inf Rate (ft/hr)
1	6:19			138.0			260.5					
	6:29	10	10	138.4	0.4		261.0	0.5				
2	6:29			138.4			261.0					
	6:39	10	20	138.8	0.4		261.4	0.4				
3	6:39			138.8			261.4					
	6:49	10	30	138.8	0.0		261.4	0.0				
4	6:49			138.8			261.4					
	6:59	10	40	138.8	0.0		261.4	0.0				
5	6:59			138.8			261.4					
	7:09	10	50	139.0	0.2		261.8	0.4				
6	7:09			139.0			261.8					
	7:19	10	60	139.2	0.2		262.0	0.2		1.2	1.2	
7	7:19			139.2			262.0					
	7:29	10	70	139.2	0.0		262.2	0.2		0.0	1.2	
8	7:29			139.2			262.2					
	7:39	10	80	139.2	0.0		262.4	0.2		0.0	1.2	
9	7:39			139.2			262.4					
	7:49	10	90	139.2	0.0		262.4	0.0		0.0	0.0	
10	7:49			129.5			262.4					
	7:59	10	100	139.2	0.0		262.4	0.0		0.0	0.0	
11	7:59			139.2			262.4					
	8:09	10	110	139.2	0.0		262.4	0.0		0.0	0.0	
12	8:09			139.2			262.4					
	8:19	10	120	139.3	0.1		262.5	0.1		0.6	0.6	

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NorCal Engineering

SOILS AND GEOTECHNICAL CONSULTANTS
10641 HUMBOLT STREET LOS ALAMITOS, CA 90720
(562)799-9469 FAX (562)799-9459

Project: Vogel Properties
Project No.: 17549-14
Date: 6/28/14

Test No.: T-6
Depth: 6'
Tested By: J.S.

	Time (hr/min)	Change Time (min)	Cumulative Time (min)	Inner Ring Reading (cm)	Inner Ring Change (cm)	Inner Ring Flow (cc)	Outer Ring Reading (cm)	Outer Ring Change (cm)	Outer Ring Flow (cc)	Inner Ring Inf Rate (cm/hr)	Outer Ring Inf Rate (cm/hr)	Inner Ring Inf Rate (ft/hr)
1	8:37			134.8			256.3					
	8:47	10	10	135.2	0.4		257.0	0.7				
2	8:47			135.2			257.0					
	8:57	10	20	135.2	0.0		257.2	0.2				
3	8:57			135.4			257.2					
	9:07	10	30	135.4	0.2		257.4	0.2				
4	9:07			135.8			257.4					
	9:17	10	40	135.8	0.4		257.8	0.4				
5	9:17			135.8			257.8					
	9:27	10	50	135.8	0.0		257.8	0.0				
6	9:27			135.8			257.8					
	9:37	10	60	135.8	0.0		258.0	0.2		0.0	1.2	
7	9:37			135.8			258.0					
	9:47	10	70	135.9	0.1		258.2	0.2		0.6	1.2	
8	9:47			135.9			258.2					
	9:57	10	80	136.0	0.1		258.4	0.2		0.6	1.2	
9	9:57			136.0			258.4					
	10:07	10	90	136.0	0.0		258.4	0.0		0.0	0.0	
10	10:07			136.0			258.4					
	10:17	10	100	136.0	0.0		258.4	0.0		0.0	0.0	
11	10:17			136.0			258.4					
	10:27	10	110	136.0	0.0		258.4	0.0		0.0	0.0	
12	10:27			136.0			258.4					
	10:37	10	120	136.0	0.0		258.4	0.0		0.0	0.0	

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NorCal Engineering

SOILS AND GEOTECHNICAL CONSULTANTS
10641 HUMBOLT STREET LOS ALAMITOS, CA 90720
(562)799-9469 FAX (562)799-9459

Project: Vogel Properties
Project No.: 17549-14
Date: 6/28/14

Test No.: T-7
Depth: 6'
Tested By: J.S.

	Time (hr/min)	Change Time (min)	Cumulative Time (min)	Inner Ring Reading (cm)	Inner Ring Change (cm)	Inner Ring Flow (cc)	Outer Ring Reading (cm)	Outer Ring Change (cm)	Outer Ring Flow (cc)	Inner Ring Inf Rate (cm/hr)	Outer Ring Inf Rate (cm/hr)	Inner Ring Inf Rate (ft/hr)
1	10:55			136.9			260.0					
	11:10	15	15	137.3	1.0		261.0	1.0				
2	11:10			137.3			261.0					
	11:25	15	30	137.7	0.5		261.5	0.5				
3	11:25			137.7			261.5					
	11:40	15	45	138.0	0.5		262.0	0.5				
4	11:40			138.0			262.0					
	11:55	15	60	138.0	0.2		262.2	0.2				
5	11:55			138.0			262.2					
	12:10	15	75	138.2	0.2		262.4	0.2				
6	12:10			138.2			262.4					
	12:25	15	90	138.4	0.4		262.8	0.4				
7	12:25			138.4			262.8					
	12:40	15	105	138.6	0.1		262.9	0.1		0.4	0.4	
8	12:40			138.6			262.9					
	12:55	15	120	138.6	0.1		263.0	0.1		0.4	0.4	
9	12:55			137.0			260.2					
	1:10	15	135	137.2	0.2		260.4	0.2		0.8	0.8	
10	1:10			137.2			260.4					
	1:25	15	150	137.3	0.1		260.5	0.1		0.4	0.4	
11	1:25			137.3			260.5					
	1:40	15	165	137.5	0.2		260.7	0.2		0.8	0.8	
12	1:40			137.5			260.7					
	1:55	15	180	137.7	0.2		260.9	0.2		0.8	0.8	

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Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment Page 13-14

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the site. Based on the historical land uses at the site, there is a low likelihood that former occupants have contributed to the groundwater issues.

5 HISTORICAL LAND USE

Ardent conducted a historical land use record search for both the site and surrounding areas. This included a review of one or more of the following sources that were found to be both reasonably ascertainable and useful for the purposes of this Phase I ESA: historical aerial photographs, historical fire insurance maps, historical city directories, building permits and plans, topographic maps, property tax records, zoning/land use records, and a review of prior environmental assessment reports regarding the site. Copies of historical data are provided in Appendix C.

5.1 Summary of Historical Land Use of the Property

The site was vacant land from at least 1938 through the 1960s with possible agricultural usage during the 1930's. From at least 1978 to 2008, the southeastern parcel was occupied by a single-family residence. A prior Phase I ESA reported that the southwestern and two northern parcels were used as a sod farm in 2004. The southeastern parcel was briefly used to store truck trailers during the mid-2000's.The residential building demolition in 2008included the removal of a septic tank. From 2008 to present-day, the site has remained avacant lot.

5.2 Summary of Historical Land Use of Adjoining Properties

The site vicinity was largely used for agricultural purposes or vacant land from at least 1938through the mid-1980's. Scattered single-family residential buildings were constructed in the site vicinity during the late-1970's to mid-1980's. From the early-2000's to at least 2012, the property adjoining north was used to store modular homes, trucks and trailers. This property was vacant land during the current site reconnaissance. The commercial warehouse building adjoining south of the site was constructed by 2006.

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5.3 Fire Insurance Rate Maps

Historical Sanborn Fire Insurance Rate Maps (Sanborn maps) were requested from Environmental Data Resources Inc. (EDR) of Milford, Connecticut. According to EDR, there are no Sanborn maps available for the site.

5.4 Historical Aerial Photographs

Historical aerial photographs for selected years between 1938 and 2012 were provided by EDR. The following presents a summary of our review.

- **1938, 1953, 1961 and 1967 –** The site was vacant land. The site vicinity appeared to be used for agricultural purposes or vacant land. A water retention pond observed during the current site reconnaissance was first visible off-site near the northwestern corner of the site in the 1953 photo.

- **1978 and 1985** – By 1978, small single-family residence was visible on the southeastern parcel. A "pond" observed on-site during the current site reconnaissance was visible in the aerial photos adjoining west of the residence. By 1978, a single-family residence was constructed on the property adjoining north of the site, and by 1985 a single-family residence was constructed on the property adjoining south of the site.

- **1989, 1994, 2002, 2005, 2006, 2009, 2010 and 2012** – In the 2006 aerial photos, the site was used for storage of truck trailers. By 2009, the single-family residence was demolished. The prior Phase I ESA reported the use of the southwestern and two northern parcels as a sod farms. The presence of the sod farm usage were not obvious in the aerial photos. From 1989 to 2012, the property adjoining north appeared to be used as a storage yard for truck trailers. The prior Phase I ESA also reported the storage of modular homes at this property. The property adjoining north of the site was vacant land during the current site reconnaissance.

5.5 Building Permits

Building permits were reviewed at the City of Moreno Valley Building Department (MVBD) using the APNs associated with the site. The MVBD provided copies of a 2008 asbestos survey and demolition permit associated with the southeastern parcel. The asbestos survey was conducted prior to the demolition of the single-family residence. No asbestos was detected in the 14 samples collected. The building was demolished in July 2008 and included the removal of a septic system. The MVBD reported that there were no building records for the remaining parcels.

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Appendix 5: LID Infeasibility (N/A)

LID Technical Infeasibility Analysis

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TABLE 3-4. LID BMP Applicability

LID BMP Hierarchy	A	B	C	D
	K_{SAT}> 1.6"/hr., and no restrictions on infiltration	Are Harvest and Use BMPs feasible?	0.3"/hr. < K_{SAT} < 1.6"/hr., or unpredictable or unknown	K_{SAT} < 0.3"/hr.
LID Infiltration BMPs*	✓			
Harvest and Use BMPs		✓		✓
LID Bioretention	✓		✓	✓
LID Biotreatment				✓

Notes for Table 3-5:

***See also** Figure 3-6 for guidance in selecting appropriate BMPs*

***Column A:** Selections from this column may be used in locations where the infiltration rate of underlying soils is at least 1.6" per hour and no restrictions on infiltration apply to these locations.*

***Column B:** Harvest and Use BMPs may be used where it can be shown that there is sufficient demand for harvested water and where LID Infiltration BMPs are not feasible.*

***Column C:** Selections in this column may be used in locations where the measured infiltration rate of underlying soils is between 0.3" and 1.6" per hour or where, in accordance with recommendations of a licensed geotechnical engineer, the post-development saturated hydraulic conductivity is uncertain or unknown or cannot be reliably predicted because of soil disturbance or fill, anisotropic soil characteristics, presence of clay lenses, or other factors.*

***Column D:** Selections in this column may be used in locations where the infiltration rate of underlying soils is 0.3" per hour or less. See Chapter 2 for more information.*

** Permeable Pavement, when designed with a maximum of a 2:1 ratio of impervious area to pervious pavement areas, or less, is considered a self-retaining area, and is not considered an LID BMP for the purposes of this table. This table focuses on the 'special case' included in the discussion of 'areas draining to self-retaining areas' above, where a project proponent can choose to design the pervious pavement as a LID BMP in accordance with an approved design, such as the LID BMP Design handbook, and in return drain additional impervious area onto the pervious pavement beyond the 2:1 ratio.*

3.4.2.a. Laying out your LID BMPs

Finding the right location for LID BMPs on your site involves a careful and creative integration of several factors:

- ✓ To make the most efficient use of the site and to maximize aesthetic value, **integrate BMPs with site landscaping**. Many local zoning codes may require landscape setbacks or buffers, or may specify that a minimum portion of the site be landscaped. It may be possible to locate some or all of your site's Stormwater BMPs within this same area, or within utility easements or other non-buildable areas.

- ✓ Bioretention BMPs must be **level or nearly level** all the way around. When configured in a linear fashion (similar to swales) bioretention BMPs may be gently sloped end to end, but opposite sides must be at the same

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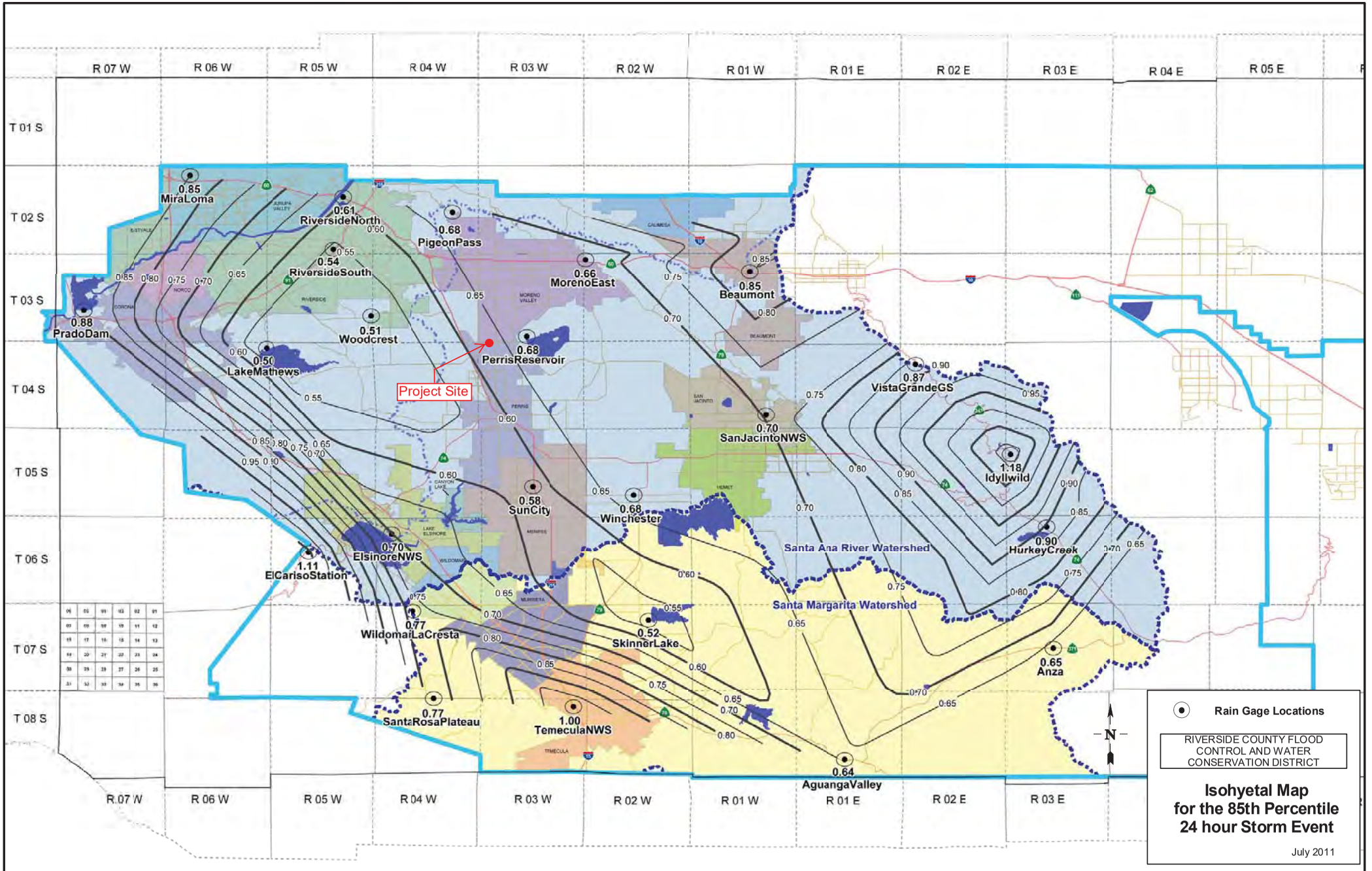
Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING


R 07 W
R 06 W
R 05 W
R 04 W
R 03 W
R 02 W
R 01 W
R 01 E
R 02 E
R 03 E
R 04 E
R 05 E
T 01 S
T 02 S
T 03 S
T 04 S
T 05 S
T 06 S
T 07 S
T 08 S
0.85 MiraLoma
0.61 RiversideNorth
0.68 PigeonPass
0.54 RiversideSouth
0.66 MorenoEast
0.85 Beaumont
0.88 PradoDam
0.51 Woodcrest
0.68 PerrisReservoir
0.50 LakeMathews
Project Site
0.87 VistaGrandeGS
0.70 SanJacintoNWS
1.18 Idyllwild
0.58 SunCity
0.68 Winchester
0.70 ElsinoreNWS
1.11 ElCarisoStation
Santa Ana River Watershed
0.90 HurkeyCreek
Santa Margarita Watershed
0.77 WildomarLaCresta
0.52 SkinnerLake
0.65 Anza
0.77 SantaRosaPlateau
1.00 TemeculaNWS
0.64 AguangaValley
N
Rain Gage Locations
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
Isohyetal Map for the 85th Percentile 24 hour Storm Event
July 2011

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name	Huitt-Zollars, Inc	Date	3/29/2016
Designed by	Ryan Peng	Case No	
Company Project Number/Name	R304806.01 - Moreno Valley Vogel Industrial		

BMP Identification

BMP NAME / ID

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.63 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
DMA A	*358418*	*Mixed Surface Types*	*0.88*	*0.70*	*251534.5*			
DMA B	*492411*	*Mixed Surface Types*	*0.87*	*0.69*	*338775.6*			

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3.5 Bioretention Facility

Type of BMP	LID – Bioretention
Treatment Mechanisms	Infiltration, Evapotranspiration, Evaporation, Biofiltration
Maximum Drainage Area	This BMP is intended to be integrated into a project's landscaped area in a distributed manner. Typically, contributing drainage areas to Bioretention Facilities range from less than 1 acre to a maximum of around 10 acres.
Other Names	Rain Garden, Bioretention Cell, Bioretention Basin, Biofiltration Basin, Landscaped Filter Basin, Porous Landscape Detention

Description

Bioretention Facilities are shallow, vegetated basins underlain by an engineered soil media. Healthy plant and biological activity in the root zone maintain and renew the macro-pore space in the soil and maximize plant uptake of pollutants and runoff. This keeps the Best Management Practice (BMP) from becoming clogged and allows more of the soil column to function as both a sponge (retaining water) and a highly effective and self-maintaining biofilter. In most cases, the bottom of a Bioretention Facility is unlined, which also provides an opportunity for infiltration to the extent the underlying onsite soil can accommodate. When the infiltration rate of the underlying soil is exceeded, fully biotreated flows are discharged via underdrains. Bioretention Facilities therefore will inherently achieve the maximum feasible level of infiltration and evapotranspiration and achieve the minimum feasible (but highly biotreated) discharge to the storm drain system.

Siting Considerations

These facilities work best when they are designed in a relatively level area. Unlike other BMPs, Bioretention Facilities can be used in smaller landscaped spaces on the site, such as:

- ✓ Parking islands
- ✓ Medians
- ✓ Site entrances

Landscaped areas on the site (such as may otherwise be required through minimum landscaping ordinances), can often be designed as Bioretention Facilities. This can be accomplished by:

- *Depressing* landscaped areas below adjacent impervious surfaces, rather than elevating those areas
- Grading the site to direct runoff from those impervious surfaces *into* the Bioretention Facility, rather than away from the landscaping
- Sizing and designing the depressed landscaped area as a Bioretention Facility as described in this Fact Sheet

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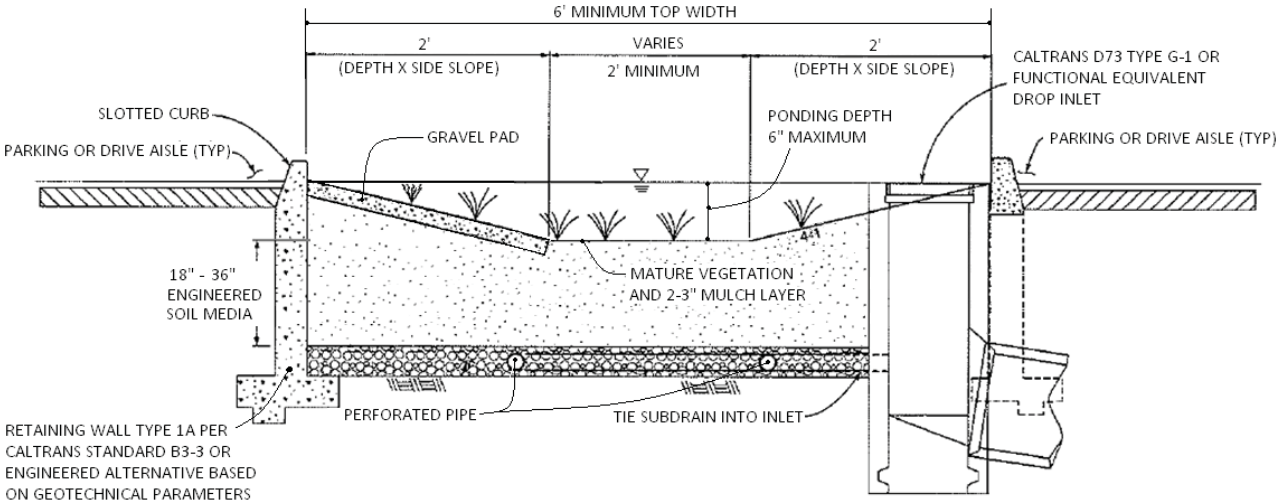
Bioretention Facilities should however not be used downstream of areas where large amounts of sediment can clog the system. Placing a Bioretention Facility at the toe of a steep slope should also be avoided due to the potential for clogging the engineered soil media with erosion from the slope, as well as the potential for damaging the vegetation.

Design and Sizing Criteria

The recommended cross section necessary for a Bioretention Facility includes:

- Vegetated area
- 18' minimum depth of engineered soil media
- 12' minimum gravel layer depth with 6' perforated pipes (added flow control features such as orifice plates may be required to mitigate for HCOC conditions)



While the 18-inch minimum engineered soil media depth can be used in some cases, it is recommended to use 24 inches or a preferred 36 inches to provide an adequate root zone for the chosen plant palate. Such a design also provides for improved removal effectiveness for nutrients. The recommended ponding depth inside of a Bioretention Facility is 6 inches; measured from the flat bottom surface to the top of the water surface as shown in Figure 1.

Because this BMP is filled with an engineered soil media, pore space in the soil and gravel layer is assumed to provide storage volume. However, several considerations must be noted:

- Surcharge storage above the soil surface (6 inches) is important to assure that design flows do not bypass the BMP when runoff exceeds the soil's absorption rate.
- In cases where the Bioretention Facility contains engineered soil media deeper than 36 inches, the pore space within the engineered soil media can only be counted to the 36-inch depth.
- A maximum of 30 percent pore space can be used for the soil media whereas a maximum of 40 percent pore space can be use for the gravel layer.

Figure 1: Standard Layout for a Bioretention Facility

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Engineered Soil Media Requirements

The engineered soil media shall be comprised of 85 percent mineral component and 15 percent organic component, by volume, drum mixed prior to placement. The mineral component shall be a Class A sandy loam topsoil that meets the range specified in Table 1 below. The organic component shall be nitrogen stabilized compost[1], such that nitrogen does not leach from the media.

Table 1: Mineral Component Range Requirements

Percent Range	Component
70-80	Sand
15-20	Silt
5-10	Clay

The trip ticket, or certificate of compliance, shall be made available to the inspector to prove the engineered mix meets this specification.

Vegetation Requirements

Vegetative cover is important to minimize erosion and ensure that treatment occurs in the Bioretention Facility. The area should be designed for at least 70 percent mature coverage throughout the Bioretention Facility. To prevent the BMP from being used as walkways, Bioretention Facilities shall be planted with a combination of small trees, densely planted shrubs, and natural grasses. Grasses shall be native or ornamental; preferably ones that do not need to be mowed. The application of fertilizers and pesticides should be minimal. To maintain oxygen levels for the vegetation and promote biodegradation, it is important that vegetation not be completely submerged for any extended period of time. Therefore, a maximum of 6 inches of ponded water shall be used in the design to ensure that plants within the Bioretention Facility remain healthy.

A 2 to 3-inch layer of standard shredded aged hardwood mulch shall be placed as the top layer inside the Bioretention Facility. The 6-inch ponding depth shown in Figure 1 above shall be measured from the top surface of the 2 to 3-inch mulch layer.

Curb Cuts

To allow water to flow into the Bioretention Facility, 1-foot-wide (minimum) curb cuts should be placed approximately every 10 feet around the perimeter of the Bioretention Facility. Figure 2 shows a curb cut in a Bioretention Facility. Curb cut flow lines must be at or above the V_{BMP} water surface level.

[1] For more information on compost, visit the US Composting Council website at: http://compostingcouncil.org/



Figure 2: Curb Cut located in a Bioretention Facility

To reduce erosion, a gravel pad shall be placed at each inlet point to the Bioretention Facility. The gravel should be 1- to 1.5-inch diameter in size. The gravel should overlap the curb cut opening a minimum of 6 inches. The gravel pad inside the Bioretention Facility should be flush with the finished surface at the curb cut and extend to the bottom of the slope.

In addition, place an apron of stone or concrete, a foot square or larger, inside each inlet to prevent vegetation from growing up and blocking the inlet. See Figure 3.

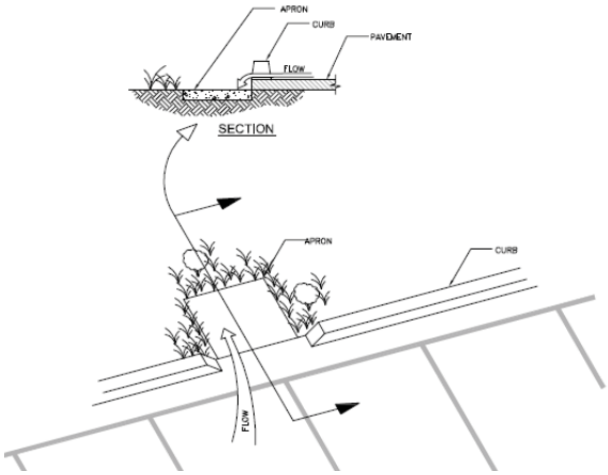

Figure 3: Apron located in a Bioretention Facility

Terracing the Landscaped Filter Basin

It is recommended that Bioretention Facilities be level. In the event the facility site slopes and lacks proper design, water would fill the lowest point of the BMP and then discharge from the basin without being treated. To ensure that the water will be held within the Bioretention Facility on sloped sites, the BMP must be terraced with nonporous check dams to provide the required storage and treatment capacity.

The terraced version of this BMP shall be used on non-flat sites with no more than a 3 percent slope. The surcharge depth cannot exceed 0.5 feet, and side slopes shall not exceed 4:1. Table 2 below shows the spacing of the check dams, and slopes shall be rounded up (i.e., 2.5 percent slope shall use 10' spacing for check dams).

Table 2: Check Dam Spacing

6" Check Dam Spacing	
Slope	**Spacing**
1%	*25'*
2%	*15'*
3%	*10'*

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Roof Runoff

Roof downspouts may be directed towards Bioretention Facilities. However, the downspouts must discharge onto a concrete splash block to protect the Bioretention Facility from erosion.

Retaining Walls

It is recommended that Retaining Wall Type 1A, per Caltrans Standard B3-3 or equivalent, be constructed around the entire perimeter of the Bioretention Facility. This practice will protect the sides of the Bioretention Facility from collapsing during construction and maintenance or from high service loads adjacent to the BMP. Where such service loads would not exist adjacent to the BMP, an engineered alternative may be used if signed by a licensed civil engineer.

Side Slope Requirements

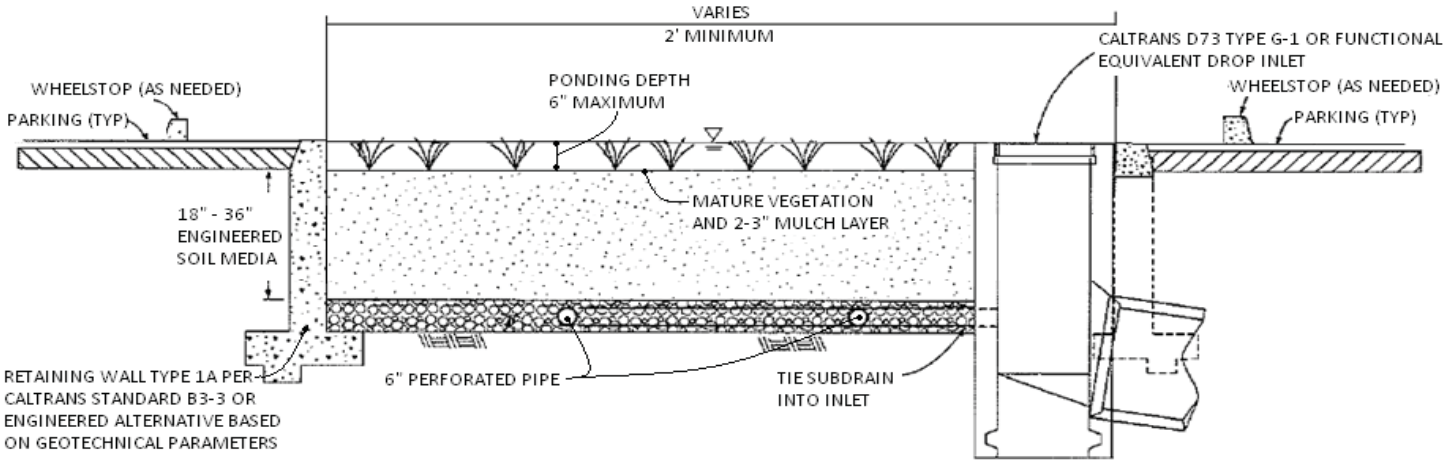
Bioretention Facilities Requiring Side Slopes

The design should assure that the Bioretention Facility does not present a tripping hazard. Bioretention Facilities proposed near pedestrian areas, such as areas parallel to parking spaces or along a walkway, must have a gentle slope to the bottom of the facility. Side slopes inside of a Bioretention Facility shall be 4:1. A typical cross section for the Bioretention Facility is shown in Figure 1.

Bioretention Facilities Not Requiring Side Slopes

Where cars park perpendicular to the Bioretention Facility, side slopes are not required. A 6-inch maximum drop may be used, and the Bioretention Facility must be planted with trees and shrubs to prevent pedestrian access. In this case, a curb is not placed around the Bioretention Facility,

but wheel stops shall be used to prevent vehicles from entering the Bioretention Facility, as shown in Figure 4.



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Planter Boxes

Bioretention Facilities can also be placed above ground as planter boxes. Planter boxes must have a minimum width of 2 feet, a maximum surcharge depth of 6 inches, and no side slopes are necessary. Planter boxes must be constructed so as to ensure that the top surface of the engineered soil media will remain level. This option may be constructed of concrete, brick, stone or other stable materials that will not warp or bend. Chemically treated wood or galvanized steel, which has the ability to contaminate stormwater, should not be used. Planter boxes must be lined with an impermeable liner on all sides, including the bottom. Due to the impermeable liner, the inside bottom of the planter box shall be designed and constructed with a cross fall, directing treated flows within the subdrain layer toward the point where subdrain exits the planter box, and subdrains shall be oriented with drain holes oriented down. These provisions will help avoid excessive stagnant water within the gravel underdrain layer. Similar to the in-ground Bioretention Facility versions, this BMP benefits from healthy plants and biological activity in the root zone. Planter boxes should be planted with appropriately selected vegetation.



Figure 5: Planter Box

Source: LA Team Effort

Overflow

An overflow route is needed in the Bioretention Facility design to bypass stored runoff from storm events larger than V_{BMP} or in the event of facility or subdrain clogging. Overflow systems must connect to an acceptable discharge point, such as a downstream conveyance system as shown in Figure 1 and Figure 4. The inlet to the overflow structure shall be elevated inside the Bioretention Facility to be flush with the ponding surface for the design capture volume (V_{BMP}) as shown in Figure 4. This will allow the design capture volume to be fully treated by the Bioretention Facility, and for larger events to safely be conveyed to downstream systems. The overflow inlet shall **not** be located in the entrance of a Bioretention Facility, as shown in Figure 6.

Underdrain Gravel and Pipes

An underdrain gravel layer and pipes shall be provided in accordance with Appendix B – Underdrains.



Figure 6: Incorrect Placement of an Overflow Inlet.

Inspection and Maintenance Schedule

The Bioretention Facility area shall be inspected for erosion, dead vegetation, soggy soils, or standing water. The use of fertilizers and pesticides on the plants inside the Bioretention Facility should be minimized.

Schedule	Activity
Ongoing	• Keep adjacent landscape areas maintained. Remove clippings from landscape maintenance activities. • Remove trash and debris • Replace damaged grass and/or plants • Replace surface mulch layer as needed to maintain a 2-3 inch soil cover.
After storm events	• Inspect areas for ponding
Annually	• Inspect/clean inlets and outlets

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Bioretention Facility Design Procedure

1) Enter the area tributary, A_T, to the Bioretention Facility.

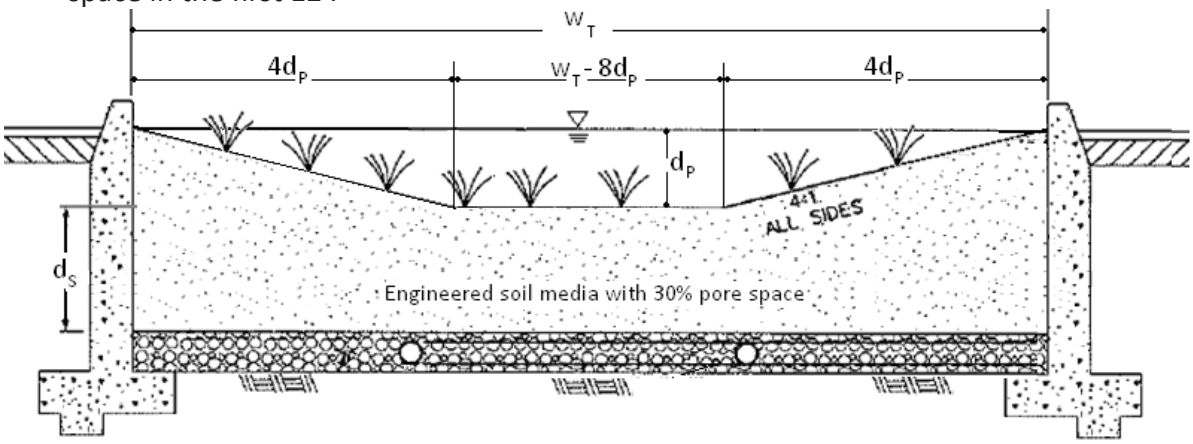
2) Enter the Design Volume, V_{BMP}, determined from Section 2.1 of this Handbook.

3) Select the type of design used. There are two types of Bioretention Facility designs: the standard design used for most project sites that include side slopes, and the modified design used when the BMP is located perpendicular to the parking spaces or with planter boxes that do not use side slopes.

4) Enter the depth of the engineered soil media, d_S. The minimum depth for the engineered soil media can be 18' in limited cases, but it is recommended to use 24' or a preferred 36' to provide an adequate root zone for the chosen plant palette. Engineered soil media deeper than 36' will only get credit for the pore space in the first 36'.

5) Enter the top width of the Bioretention Facility.

6) Calculate the total effective depth, d_E, within the Bioretention Facility. The maximum allowable pore space of the soil media is 30% while the maximum allowable pore space for the gravel layer is 40%. Gravel layer deeper than 12' will only get credit for the pore space in the first 12'.



a. For the design with side slopes the following equation shall be used to determine the total effective depth. Where, d_P is the depth of ponding within the basin.

$$d_E(\text{ft}) = \frac{0.3 \times \left[\left(w_T(\text{ft}) \times d_S(\text{ft})\right) + 4\left(d_P(\text{ft})\right)^2\right] + 0.4 \times 1(\text{ft}) + d_P(\text{ft})\left[4d_P(\text{ft}) + \left(w_T(\text{ft}) - 8d_P(\text{ft})\right)\right]}{w_T(\text{ft})}$$

This above equation can be simplified if the maximum ponding depth of 0.5' is used. The equation below is used on the worksheet to find the minimum area required for the Bioretention Facility:

$$d_E(\text{ft}) = (0.3 \times d_S(\text{ft}) + 0.4 \text{ x } 1(\text{ft})) - \left(\frac{0.7\ (\text{ft}^2)}{w_T(\text{ft})}\right) + 0.5(\text{ft})$$

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b. For the design without side slopes the following equation shall be used to determine the total effective depth:

$$d_E(\text{ft}) = d_P(\text{ft}) + [(0.3) \times d_S(\text{ft}) + (0.4) \times 1(\text{ft})]$$

The equation below, using the maximum ponding depth of 0.5', is used on the worksheet to find the minimum area required for the Bioretention Facility:

$$d_E(\text{ft}) = 0.5\ (\text{ft}) + [(0.3) \times d_S(\text{ft}) + (0.4) \times 1(\text{ft})]$$

7) Calculate the minimum surface area, A_M, required for the Bioretention Facility. This does not include the curb surrounding the Bioretention Facility or side slopes.

$$A_M(\text{ft}^2) = \frac{V_{BMP}(\text{ft}^3)}{d_E\ (\text{ft})}$$

8) Enter the proposed surface area. This area shall not be less than the minimum required surface area.

9) Verify that side slopes are no steeper than 4:1 in the standard design, and are not required in the modified design.

10) Provide the diameter, minimum 6 inches, of the perforated underdrain used in the Bioretention Facility. See Appendix B for specific information regarding perforated pipes.

11) Provide the slope of the site around the Bioretention Facility, if used. The maximum slope is 3 percent for a standard design.

12) Provide the check dam spacing, if the site around the Bioretention Facility is sloped.

13) Describe the vegetation used within the Bioretention Facility.

Bioretention Facility - Design Procedure	BMP ID For DMA A	Legend:	Required Entries / Calculated Cells

Company Name:	Huitt-Zollars, Inc	Date:	6/8/2016
Designed by:	Ryan L. Peng	County/City Case No.:	PA16-0002

Design Volume

Enter the area tributary to this feature	A_T=	8.23	acres
Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP}=	13,206	ft^3

Type of Bioretention Facility Design

(●) Side slopes required (parallel to parking spaces or adjacent to walkways)

( ) No side slopes required (perpendicular to parking space or Planter Boxes)

Bioretention Facility Surface Area

Depth of Soil Filter Media Layer	d_S =	2.5	ft
Top Width of Bioretention Facility, excluding curb	w_T =	20.0	ft
Total Effective Depth, d_E $d_E = (0.3) \times d_S + (0.4) \times 1 - (0.7/w_T) + 0.5$	d_E =	1.62	ft
Minimum Surface Area, A_m $A_M\ (ft^2) = \frac{V_{BMP}\ (ft^3)}{d_E\ (ft)}$	A_M =	8,178	ft^2
Proposed Surface Area	A=	8,918	ft^2

Bioretention Facility Properties

Side Slopes in Bioretention Facility	z =	4	:1
Diameter of Underdrain		6	inches
Longitudinal Slope of Site (3% maximum)		0	%
6" Check Dam Spacing		0	feet
Describe Vegetation:			

Notes: 1. The bioretention basin 1 and 2 are linked together by a 18" RCP along the Indian Street of the project site.

2. This Calculation is based on the total area of basin 1 and basin 2 with the same design criteria applied.

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Bioretention Facility - Design Procedure	BMP ID For DMA B	Legend:	Required Entries / Calculated Cells

Company Name: Huitt-Zollars, Inc Date: 6/8/2016

Designed by: Ryan L. Peng County/City Case No.: PA16-0002

Design Volume

Enter the area tributary to this feature A_T = 11.3 acres

Enter V_{BMP} determined from Section 2.1 of this Handbook V_{BMP} = 17,786 ft^3

Type of Bioretention Facility Design

(●) Side slopes required (parallel to parking spaces or adjacent to walkways)

( ) No side slopes required (perpendicular to parking space or Planter Boxes)

Bioretention Facility Surface Area

Depth of Soil Filter Media Layer d_S = 2.0 ft

Top Width of Bioretention Facility, excluding curb w_T = 40.0 ft

Total Effective Depth, d_E

$d_E = (0.3) \times d_S + (0.4) \times 1 - (0.7/w_T) + 0.5$ d_E = 1.48 ft

Minimum Surface Area, A_m

$$A_M\,(ft^2) = \frac{V_{BMP}\,(ft^3)}{d_E\,(ft)}$$

A_M = 11,998 ft^2

Proposed Surface Area A= 12,044 ft^2

Bioretention Facility Properties

Side Slopes in Bioretention Facility z = 4 :1

Diameter of Underdrain 6 inches

Longitudinal Slope of Site (3% maximum) 0 %

6" Check Dam Spacing 0 feet

Describe Vegetation:

Notes: This calculation is for bio-retention basin 3.

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APPENDIX E

BMP Pollutant Removal Effectiveness

APPENDIX E
BMP POLLUTANT REMOVAL EFFECTIVENESS

BMP Pollutant Removal Effectiveness [1]

Pollutant of Concern	Harvest and Use [8]	Infiltration BMPs [3]	Bioretention	Extended Detention Basins [2]	Sand Filter Basin [7]
Sediment	H	H	H	M	H
Nutrient	H	H	[5]	M [4]	L [6]
Trash	H	H	H	H	H
Metal	H	H	H	M	M
Bacteria	H	H	H	M	M
Oil & Grease	H	H	H	M	H
Organic Compounds	H	H	H	M	H
Pesticides	H	H	H	U	U

Abbreviations:

L: Low removal efficiency M: Medium removal efficiency H: High removal efficiency U: Unknown

Notes:

(1) Periodic performance assessment and updating of this table may be performed based on updated information from studies from the District, CASQA, Caltrans or others. These effectiveness ratings are based on the specific BMP designs incorporated into this manual.

(2) Effectiveness based upon total 72-hour drawdown time.

(3) Includes infiltration basins, infiltration trenches, and permeable pavements.

(4) Medium for soil types A & B only. Low for soil types C & D.

(5) Removal rating is dependent on the soil media depth. L=Min. 18” deep, M= Min. 24” deep, H=Max. 30"-36" deep.

(6) Medium where sand filter layer is increased to 36”.

(7) Considered to be a Treatment Control BMP. See the WQMP to determine if this BMP can be used.

(8) Cisterns, when associated with an adequate and reliable (year-round) demand for non-potable use of captured storm water (see the applicable WQMP for any specific requirements), have a High effectiveness at removing all pollutants from stormwater runoff. If there is inadequate demand to reliably drain the cistern through a non-potable use throughout the year, pollutant removal effectiveness will be Low.

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Appendix 7: Hydromodification (N/A)

Supporting Detail Relating to Hydrologic Conditions of Concern

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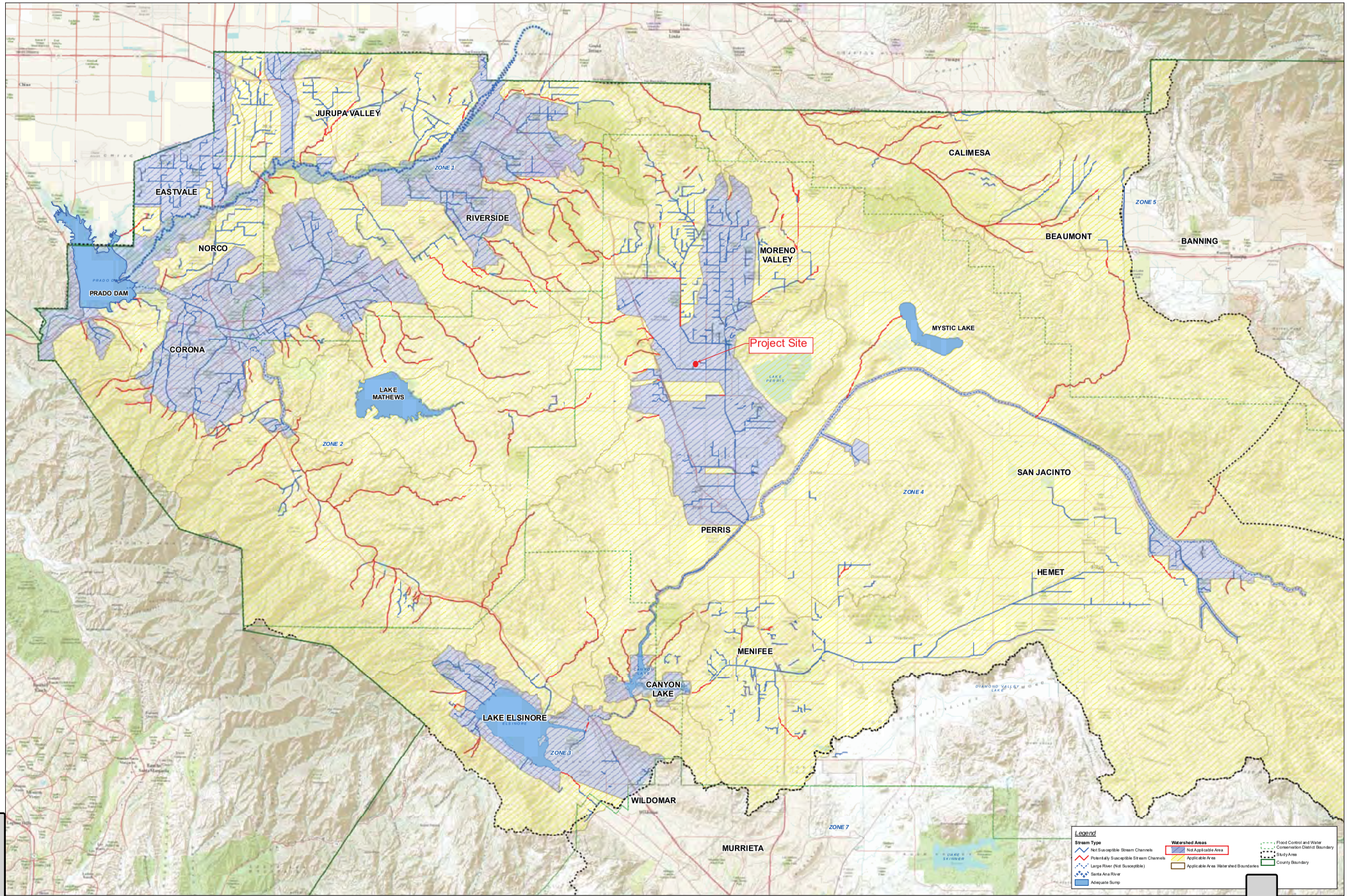

HCOC Ap bility Map

Hydromodification Susceptibility D n Report and Mapping
Riverside County Flood Con y Conservation District

Map 2

E.2.u

Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

How to use this worksheet (also see instructions in Section G of the WQMP Template):

1. Review Column 1 and identify which of these potential sources of stormwater pollutants apply to your site. Check each box that applies.
2. Review Column 2 and incorporate all of the corresponding applicable BMPs in your WQMP Exhibit.
3. Review Columns 3 and 4 and incorporate all of the corresponding applicable permanent controls and operational BMPs in your WQMP. Use the format shown in Table G.1on page 23 of this WQMP Template. Describe your specific BMPs in an accompanying narrative, and explain any special conditions or situations that required omitting BMPs or substituting alternative BMPs for those shown here.

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
■ A. **On-site storm drain inlets**	■ **Locations of inlets.**	■ **Mark all inlets with the words "Only Rain Down the Storm Drain" or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call 951.955.1200 to verify.**	■ **Maintain and periodically repaint or replace inlet markings.** ■ **Provide stormwater pollution prevention information to new site owners, lessees, or operators.** ■ **See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com** ■ **Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."**
❑ B. **Interior floor drains and elevator shaft sump pumps**		❑ **State that interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.**	❑ **Inspect and maintain drains to prevent blockages and overflow.**
❑ C. **Interior parking garages**		❑ **State that parking garage floor drains will be plumbed to the sanitary sewer.**	❑ **Inspect and maintain drains to prevent blockages and overflow.**

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IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ D1. **Need for future indoor & structural pest control**		❑ **Note building design features that discourage entry of pests.**	❑ **Provide Integrated Pest Management information to owners, lessees, and operators.**
❑ D2. **Landscape/ Outdoor Pesticide Use**	❑ **Show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained.** ❑ **Show self-retaining landscape areas, if any.** ❑ **Show stormwater treatment and hydrograph modification management BMPs. (See instructions in Chapter 3, Step 5 and guidance in Chapter 5.)**	**State that final landscape plans will accomplish all of the following.** ❑ **Preserve existing native trees, shrubs, and ground cover to the maximum extent possible.** ❑ **Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution.** ❑ **Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions.** ❑ **Consider using pest-resistant plants, especially adjacent to hardscape.** **To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.**	❑ **Maintain landscaping using minimum or no pesticides.** ❑ **See applicable operational BMPs in "What you should know for…..Landscape and Gardening"** at http://rcflood.org/stormwater/**Error! Hyperlink reference not valid.** ❑ **Provide IPM information to new owners, lessees and operators.**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ E. **Pools, spas, ponds, decorative fountains, and other water features.**	❑ **Show location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet. (Exception: Public pools must be plumbed according to County Department of Environmental Health Guidelines.)**	**If the Co-Permittee requires pools to be plumbed to the sanitary sewer, place a note on the plans and state in the narrative that this connection will be made according to local requirements.**	❑ **See applicable operational BMPs in** "Guidelines for Maintaining Your Swimming Pool, Jacuzzi and Garden Fountain" at http://rcflood.org/stormwater/
❑ F. **Food service**	❑ **For restaurants, grocery stores, and other food service operations, show location (indoors or in a covered area outdoors) of a floor sink or other area for cleaning floor mats, containers, and equipment.** ❑ **On the drawing, show a note that this drain will be connected to a grease interceptor before discharging to the sanitary sewer.**	❑ **Describe the location and features of the designated cleaning area.** ❑ **Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated.**	❑ **See the brochure, "**The Food Service Industry Best Management Practices for: Restaurants, Grocery Stores, Delicatessens and Bakeries" at http://rcflood.org/stormwater/ **Provide this brochure to new site owners, lessees, and operators.**
❑ G. **Refuse areas**	❑ **Show where site refuse and recycled materials will be handled and stored for pickup. See local municipal requirements for sizes and other details of refuse areas.** ❑ **If dumpsters or other receptacles are outdoors, show how the designated area will be covered, graded, and paved to prevent run-on and show locations of berms to prevent runoff from the area.** ❑ **Any drains from dumpsters, compactors, and tallow bin areas shall be connected to a grease removal device before discharge to sanitary sewer.**	❑ **State how site refuse will be handled and provide supporting detail to what is shown on plans.** ❑ **State that signs will be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.**	❑ **State how the following will be implemented:** **Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks at** www.cabmphandbooks.com

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ H. **Industrial processes.**	❑ **Show process area.**	❑ **If industrial processes are to be located on site, state: "All process activities to be performed indoors. No processes to drain to exterior or to storm drain system."**	❑ **See Fact Sheet SC-10, "Non-Stormwater Discharges" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com** See the brochure "Industrial & Commercial Facilities Best Management Practices for: Industrial, Commercial Facilities" at http://rcflood.org/stormwater/

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ I. Outdoor storage of equipment or materials. (See rows J and K for source control measures for vehicle cleaning, repair, and maintenance.)	❑ Show any outdoor storage areas, including how materials will be covered. Show how areas will be graded and bermed to prevent run-on or run-off from area. ❑ Storage of non-hazardous liquids shall be covered by a roof and/or drain to the sanitary sewer system, and be contained by berms, dikes, liners, or vaults. ❑ Storage of hazardous materials and wastes must be in compliance with the local hazardous materials ordinance and a Hazardous Materials Management Plan for the site.	Include a detailed description of materials to be stored, storage areas, and structural features to prevent pollutants from entering storm drains. Where appropriate, reference documentation of compliance with the requirements of Hazardous Materials Programs for: ▪ Hazardous Waste Generation ▪ Hazardous Materials Release Response and Inventory ▪ California Accidental Release (CalARP) ▪ Aboveground Storage Tank ▪ Uniform Fire Code Article 80 Section 103(b) & (c) 1991 ▪ Underground Storage Tank www.cchealth.org/groups/hazmat/	❑ See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials " in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ J. **Vehicle and Equipment Cleaning**	❑ **Show on drawings as appropriate:** **(1) Commercial/industrial facilities having vehicle/equipment cleaning needs shall either provide a covered, bermed area for washing activities or discourage vehicle/equipment washing by removing hose bibs and installing signs prohibiting such uses.** **(2) Multi-dwelling complexes shall have a paved, bermed, and covered car wash area (unless car washing is prohibited on-site and hoses are provided with an automatic shut-off to discourage such use).** **(3) Washing areas for cars, vehicles, and equipment shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer.** **(4) Commercial car wash facilities shall be designed such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer, or a wastewater reclamation system shall be installed.**	❑ **If a car wash area is not provided, describe any measures taken to discourage on-site car washing and explain how these will be enforced.**	**Describe operational measures to implement the following (if applicable):** ❑ **Washwater from vehicle and equipment washing operations shall not be discharged to the storm drain system.** Refer to "Outdoor Cleaning Activities and Professional Mobile Service Providers" for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/ ❑**Car dealerships and similar may rinse cars with water only.**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ K. **Vehicle/Equipment Repair and Maintenance**	❑ **Accommodate all vehicle equipment repair and maintenance indoors. Or designate an outdoor work area and design the area to prevent run-on and runoff of stormwater.** ❑ **Show secondary containment for exterior work areas where motor oil, brake fluid, gasoline, diesel fuel, radiator fluid, acid-containing batteries or other hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas.** ❑ **Add a note on the plans that states either (1) there are no floor drains, or (2) floor drains are connected to wastewater pretreatment systems prior to discharge to the sanitary sewer and an industrial waste discharge permit will be obtained.**	❑ **State that no vehicle repair or maintenance will be done outdoors, or else describe the required features of the outdoor work area.** ❑ **State that there are no floor drains or if there are floor drains, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.** ❑ **State that there are no tanks, containers or sinks to be used for parts cleaning or rinsing or, if there are, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.**	**In the Stormwater Control Plan, note that all of the following restrictions apply to use the site:** ❑ **No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinsewater from parts cleaning into storm drains.** ❑ **No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately.** ❑ **No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment.** Refer to "Automotive Maintenance & Car Care Best Management Practices for Auto Body Shops, Auto Repair Shops, Car Dealerships, Gas Stations and Fleet Service Operations". Brochure can be found at http://rcflood.org/stormwater/ Refer to Outdoor Cleaning Activities and Professional Mobile Service Providers for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ L. **Fuel Dispensing Areas**	❑ **Fueling areas[6] shall have impermeable floors (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents run-on of stormwater to the maximum extent practicable.** ❑ **Fueling areas shall be covered by a canopy that extends a minimum of ten feet in each direction from each pump. [Alternative: The fueling area must be covered and the cover's minimum dimensions must be equal to or greater than the area within the grade break or fuel dispensing area[1].] The canopy [or cover] shall not drain onto the fueling area.**		❑ **The property owner shall dry sweep the fueling area routinely.** ❑ **See the Fact Sheet SD-30 , "Fueling Areas" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**

[6] The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.

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IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
■ M. Loading Docks	■ Show a preliminary design for the loading dock area, including roofing and drainage. Loading docks shall be covered and/or graded to minimize run-on to and runoff from the loading area. Roof downspouts shall be positioned to direct stormwater away from the loading area. Water from loading dock areas shall be drained to the sanitary sewer, or diverted and collected for ultimate discharge to the sanitary sewer. ■ Loading dock areas draining directly to the sanitary sewer shall be equipped with a spill control valve or equivalent device, which shall be kept closed during periods of operation. ■ Provide a roof overhang over the loading area or install door skirts (cowling) at each bay that enclose the end of the trailer.		■ Move loaded and unloaded items indoors as soon as possible. ■ See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

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IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
■ N. Fire Sprinkler Test Water		■ Provide a means to drain fire sprinkler test water to the sanitary sewer.	■ See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
O. Miscellaneous Drain or Wash Water or Other Sources ❑ Boiler drain lines ❑ Condensate drain lines ❑ Rooftop equipment ❑ Drainage sumps ❑ Roofing, gutters, and trim. ❑ Other sources		❑ Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system. ❑ Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system. ❑ Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment. ❑ Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water. ❑ Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff. Include controls for other sources as specified by local reviewer.	

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
■ P. **Plazas, sidewalks, and parking lots.**			■ **Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.**

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Appendix 9: O&M (Owner's signature for the O&M will be provided in Final Project-Specific WQMP Approval)

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

Owner's signature for the Operations & Maintenance (O&M) Plan will be provided in Final Project-Specific WQMP Approval

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RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

CITY CLERK
CITY OF MORENO VALLEY
PO BOX 88005
14177 FREDERICK STREET
MORENO VALLEY, CA 92552-0805

EXEMPT FROM FEE PER G.C. Section 6103

SPACE ABOVE THIS LINE FOR RECORDER'S USE

STORMWATER TREATMENT DEVICE AND CONTROL MEASURE ACCESS AND MAINTENANCE COVENANT

THIS INSTRUMENT is made and entered into this _____ day of _____, by and between Sares Regis Group, hereinafter referred to as "Owner/Lessee," and the City of Moreno Valley, a municipal corporation, hereinafter referred to as "City."

RECITALS

WHEREAS, the Owner/Lessee owns/is leasing real property ("Property") in the City specifically described in Exhibit "A," which is attached hereto and incorporated herein by this reference; and

WHEREAS, at the time of approval of the development project known as Sares Regis Moreno Valley Industrial (the "Project") for the Property, the City required the Project to employ on-site storm water and non-storm water control measures to mitigate the Project impacts to water quality and minimize pollutants in urban storm water runoff; and

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WHEREAS, the City and Owner/Lessee, its successors, and assigns, agree that the health, safety and welfare of the residents of the City, require that on-site storm water and non-storm water management control measures be constructed and implemented and adequately maintained on the Property; and

WHEREAS, the Owner/Lessee has chosen to install bio-retention basin, hereinafter referred to as the "Device" and other control measures all as described in the Final Water Quality Management Plan (WQMP) to minimize pollutants in urban storm water and non-storm water runoff; and

WHEREAS, the Device and other control measures have been installed and/or implemented in accordance with the WQMP, project plans and specifications approved by the City; and

WHEREAS, the Device and other control measures, being installed on private property and draining only private property are private facilities with all maintenance or replacement therefore being the sole responsibility of the Owner/Lessee; and

WHEREAS, the Owner/Lessee is aware that periodic and continuous maintenance including, but not necessarily limited to, filter material replacement and sediment removal is required to assure discharges from the Device, other control measures and the Project are in compliance with the City's Municipal Code for storm water and non-storm water discharges and that such maintenance activity will require compliance with all Federal, State and local laws and

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regulations, including those pertaining to confined space and waste disposal methods in effect at the time such maintenance occurs;

NOW, THEREFORE, in consideration of City's approval of the Project and the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the City and Owner/Lessee agree as follows:

1. The Owner/Lessee hereby provides the City and its designees with full right of access to the Device and other control measures and the immediate vicinity of the property at any time, upon reasonable notice; or in the event of emergency, as determined by City's Public Works Director/City Engineer or designees, no advance notice; for the purpose of inspection, sampling and testing of the Device and other control measures, and in cases of emergency, where the public health, safety, or welfare is compromised, such emergency shall be declared a "nuisance" as defined in the Municipal Code. Such conditions that created the emergency shall be abated as provided for in the Municipal Code and at the Owner's/Lessee's expense as provided for in Section 3, below.

2. The Owner/Lessee shall diligently maintain the Device and other control measures in a manner assuring all discharges from the Device, other control measures and the Project are in compliance with the Municipal Code for storm water and non-storm water discharges at all times. All reasonable precautions shall be exercised by the Owner/Lessee and the Owner's/Lessee's representatives in the removal and extraction of materials from the Device and other control

measures, and the ultimate disposal of the materials in a manner consistent with all applicable laws. As may be requested from time to time by the City, the Owner/Lessee shall provide the City with documentation identifying the materials removed, the quantity and the recycle of disposal destinations, as appropriate.

3. In the event the Owner/Lessee fails to perform the necessary maintenance contemplated by this Instrument, within five (5) days of being given written notice by the City, the lack of maintenance shall be considered a public health and safety concern and declared a "nuisance", the City shall take all necessary actions as provided in the Municipal Code, to abate the nuisance and charge the entire cost and expense to the Owner/Lessee, including administrative costs, attorneys' fees and interest thereon at the maximum rate authorized by law from the date of the notice of expense until paid in full. Additionally, any discharge as a result from the lack of maintenance prescribed herein from the Device to the City's maintained Municipal Separate Storm Sewer System shall be considered an illegal discharge and considered a violation of the Municipal Code and shall cease immediately. Such cessation may include a yellow or red tag issued to the Project.

4. This Instrument shall be recorded in the Official Records of the County of Riverside at the expense of the Owner/Lessee and shall constitute notice to all successors and assigns to the title to the Property of the obligations herein set forth. This Instrument shall also constitute a lien against the Property in such amount as will fully reimburse the City, including interest as herein above set

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forth, subject to foreclosure in event of default in payment.

5. It is the intent of the Owner/Lessee that the burdens and benefits herein undertaken shall constitute covenants that run with the Property and shall constitute a lien against the Property.

6. This covenant imposes no liability of any kind whatsoever on the City and the Owner/Lessee agrees to hold the City harmless from any liability in the event the Device and other control measures fail to operate in accordance with the plans and specification submitted to the City.

7. The obligations herein undertaken shall be binding upon the heirs, successors, executors, administrators and assigns of the Owner/Lessee hereto. The term "Owner"/ "Lessee" shall include not only the Owner/Lessee, but also its heirs, successors, executors, administrators, lessees and assigns. The Owner/Lessee shall notify any successor to title of all or part of the Property about the existence of this Instrument. The Owner/Lessee shall provide such notice prior to such successor obtaining an interest in all or part of the Property. The Owner/Lessee shall provide a copy of such notice to the City at the same time such notice is provided to the successor.

8. Time is of the essence in the performance of this Instrument.

9. Any notice to a party required or called for in this Instrument shall be served in person, or by deposit in the U.S. Mail, first class postage prepaid, to the address

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set forth below. Notice(s) shall be deemed effective upon receipt, or seventy-two (72) hours after deposit in the U.S. Mail, whichever is earlier. A party may change notice address only by providing written notice thereof to the other party.

CITY:	OWNER/LESSEE:
Public Works Director/City Engineer	Name: Patrick Russell
City of Moreno Valley	Company: Sares Regis Group
PO Box 88005	Address: 18802 Bardeen Avenue
14177 Frederick Street	City/State/ZIP: Irvine, CA 92612
Moreno Valley, CA 92552-0805	

10. This Instrument represents the entire Covenant of the parties hereto as to the matters contained herein and supersedes any and all prior written or verbal agreements between the parties as to the subject matter hereof.

11. This Instrument shall be governed by and construed in accordance with the laws of the State of California.

12. No amendment to this Instrument shall be made without prior written approval by the City.

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APPROVED AS TO FORM:

OWNER/LESSEE:

Suzanne Bryant, City Attorney

(Name, Title)

CITY:

CITY OF MORENO VALLEY

By:_____
City Manager

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EXHIBIT "A"

Legal Description

THE DESCRIPTIONS SHOWN BELOW HAVE BEEN EXTRACTED FROM A PRELIMINARY TITLE REPORT PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT NO.: NCS-732600-SA1, COMMITMENT DATEAUGUST 17, 2015 AND WAS NOT PREPARED BY THE SURVEYOR INDICATED HEREON. THESE DESCRIPTIONS HAVE BEEN SHOWN HEREON AT THE REQUEST OF THE LENDER. REFERENCE IS MADE TO SAID PRELIMINARY TITLE REPORT FOR A TRUE COPY.

PARCEL 1:

THE NORTH 1/2 OF THE WEST 1/2 OF LOT 27, BLOCK 1 OF RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 2:

THE NORTH HALF OF THE EAST HALF OF LOT 27, BLOCK 1 OF RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, FOR UTILITY PURPOSES.

EXCEPTING THEREFROM THE EAST 10.00 FEET THEREOF, CONVEYED TO THE MARCH JOINT POWERS AUTHORITY, A BODY POLITIC BY DEEDS RECORDED JULY 23, 2001, AS INSTRUMENT NOS.: 2001-339627 AND 2001-339628, BOTH OF OFFICIAL RECORDS.

PARCEL 3:

THE SOUTH 1/2 OF THE WEST 1/2 OF LOT 27 IN BLOCK 1 OF RIVERSIDE ALFALFA ACRES, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8, PAGE 21, OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PARCEL 4:

THE SOUTH HALF OF THE EAST HALF OF LOT 27, BLOCK 1 OF RIVERSIDE ALFALFA ACRES, AS PER MAP RECORDED IN BOOK 8, PAGE 21, OF MAPS, IN THE OFFICE OF THE COUNTY OF RECORDER OF SAID COUNTY.

EXCEPTING THEREFROM THE EAST 10.00 FEET OF SAID LAND AS CONVEYED TO MARCH JOINT POWERS AUTHORITY, A BODY POLITIC BY DEEDS RECORDED FEBRUARY 2, 2004, AS INSTRUMENT NOS.: 2004-0074786 OF OFFICIAL RECORDS.

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information

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Drain Inserts MP-52

Description

Drain inserts are manufactured filters or fabric placed in a drop inlet to remove sediment and debris. There are a multitude of inserts of various shapes and configurations, typically falling into one of three different groups: socks, boxes, and trays. The sock consists of a fabric, usually constructed of polypropylene. The fabric may be attached to a frame or the grate of the inlet holds the sock. Socks are meant for vertical (drop) inlets. Boxes are constructed of plastic or wire mesh. Typically a polypropylene "bag" is placed in the wire mesh box. The bag takes the form of the box. Most box products are one box; that is, the setting area and filtration through media occur in the same box. Some products consist of one or more trays or mesh grates. The trays may hold different types of media. Filtration media vary by manufacturer. Types include polypropylene, porous polymer, treated cellulose, and activated carbon.

California Experience

The number of installations is unknown but likely exceeds a thousand. Some users have reported that these systems require considerable maintenance to prevent plugging and bypass.

Advantages

- Does not require additional space as inserts as the drain inlets are already a component of the standard drainage systems.
- Easy access for inspection and maintenance.
- As there is no standing water, there is little concern for mosquito breeding.
- A relatively inexpensive retrofit option.

Limitations

Performance is likely significantly less than treatment systems that are located at the end of the drainage system such as ponds and vaults. Usually not suitable for large areas or areas with trash or leaves than can plug the insert.

Design and Sizing Guidelines

Refer to manufacturer's guidelines. Drain inserts come any many configurations but can be placed into three general groups: socks, boxes, and trays. The sock consists of a fabric, usually constructed of polypropylene. The fabric may be attached to a frame or the grate of the inlet holds the sock. Socks are meant for vertical (drop) inlets. Boxes are constructed of plastic or wire mesh. Typically a polypropylene "bag" is placed in the wire mesh box. The bag takes the form of the box. Most box products are

Design Considerations

- Use with other BMPs
- Fit and Seal Capacity within Inlet

Targeted Constituents

- ✓ Sediment
- ✓ Nutrients
- ✓ Trash
- ✓ Metals
- Bacteria
- ✓ Oil and Grease
- ✓ Organics

Removal Effectiveness

See New Development and Redevelopment Handbook-Section 5.

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one box; that is, the setting area and filtration through media occurs in the same box. One manufacturer has a double-box. Stormwater enters the first box where setting occurs. The stormwater flows into the second box where the filter media is located. Some products consist of one or more trays or mesh grates. The trays can hold different types of media. Filtration media vary with the manufacturer: types include polypropylene, porous polymer, treated cellulose, and activated carbon.

Construction/Inspection Considerations

Be certain that installation is done in a manner that makes certain that the stormwater enters the unit and does not leak around the perimeter. Leakage between the frame of the insert and the frame of the drain inlet can easily occur with vertical (drop) inlets.

Performance

Few products have performance data collected under field conditions.

Siting Criteria

It is recommended that inserts be used only for retrofit situations or as pretreatment where other treatment BMPs presented in this section area used.

Additional Design Guidelines

Follow guidelines provided by individual manufacturers.

Maintenance

Likely require frequent maintenance, on the order of several times per year.

Cost

- The initial cost of individual inserts ranges from less than $100 to about $2,000. The cost of using multiple units in curb inlet drains varies with the size of the inlet.
- The low cost of inserts may tend to favor the use of these systems over other, more effective treatment BMPs. However, the low cost of each unit may be offset by the number of units that are required, more frequent maintenance, and the shorter structural life (and therefore replacement).

References and Sources of Additional Information

Hrachovec, R., and G. Minton, 2001, Field testing of a sock-type catch basin insert, Planet CPR, Seattle, Washington

Interagency Catch Basin Insert Committee, Evaluation of Commercially-Available Catch Basin Inserts for the Treatment of Stormwater Runoff from Developed Sites, 1995

Larry Walker Associates, June 1998, NDMP Inlet/In-Line Control Measure Study Report

Manufacturers literature

Santa Monica (City), Santa Monica Bay Municipal Stormwater/Urban Runoff Project - Evaluation of Potential Catch basin Retrofits, Woodward Clyde, September 24, 1998

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Drain Inserts MP-52

Woodward Clyde, June 11, 1996, Parking Lot Monitoring Report, Santa Clara Valley Nonpoint Source Pollution Control Program.

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Outdoor Loading / Unloading SC-30



Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Description

The loading/unloading of materials usually takes place outside on docks or terminals; therefore, materials spilled, leaked, or lost during loading/unloading may collect in the soil or on other surfaces and have the potential to be carried away by stormwater runoff or when the area is cleaned. Additionally, rainfall may wash pollutants from machinery used to unload or move materials. Implementation of the following protocols will prevent or reduce the discharge of pollutants to stormwater from outdoor loading/unloading of materials.

Targeted Constituents

Sediment	✓
Nutrients	✓
Trash	
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Pollution Prevention

- Keep accurate maintenance logs to evaluate materials removed and improvements made.
- Park tank trucks or delivery vehicles in designated areas so that spills or leaks can be contained.
- Limit exposure of material to rainfall whenever possible.
- Prevent stormwater run-on.
- Check equipment regularly for leaks.

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SC-30 Outdoor Loading/Unloading

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Suggested Protocols

Loading and Unloading – General Guidelines

- Develop an operations plan that describes procedures for loading and/or unloading.
- Conduct loading and unloading in dry weather if possible.
- Cover designated loading/unloading areas to reduce exposure of materials to rain.
- Consider placing a seal or door skirt between delivery vehicles and building to prevent exposure to rain.
- Design loading/unloading area to prevent stormwater run-on, which would include grading or berming the area, and position roof downspouts so they direct stormwater away from the loading/unloading areas.
- Have employees load and unload all materials and equipment in covered areas such as building overhangs at loading docks if feasible.
- Load/unload only at designated loading areas.
- Use drip pans underneath hose and pipe connections and other leak-prone spots during liquid transfer operations, and when making and breaking connections. Several drip pans should be stored in a covered location near the liquid transfer area so that they are always available, yet protected from precipitation when not in use. Drip pans can be made specifically for railroad tracks. Drip pans must be cleaned periodically, and drip collected materials must be disposed of properly.
- Pave loading areas with concrete instead of asphalt.
- Avoid placing storm drains in the area.
- Grade and/or berm the loading/unloading area to a drain that is connected to a deadend.

Inspection

- Check loading and unloading equipment regularly for leaks, including valves, pumps, flanges and connections.
- Look for dust or fumes during loading or unloading operations.

Training

- Train employees (e.g., fork lift operators) and contractors on proper spill containment and cleanup.
- Have employees trained in spill containment and cleanup present during loading/unloading.
- Train employees in proper handling techniques during liquid transfers to avoid spills.
- Make sure forklift operators are properly trained on loading and unloading procedures.

Outdoor Loading/Unloading SC-30

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Contain leaks during transfer.
- Store and maintain appropriate spill cleanup materials in a location that is readily accessible and known to all and ensure that employees are familiar with the site's spill control plan and proper spill cleanup procedures.
- Have an emergency spill cleanup plan readily available.
- Use drip pans or comparable devices when transferring oils, solvents, and paints.

Other Considerations (Limitations and Regulations)

- Space and time limitations may preclude all transfers from being performed indoors or under cover.
- It may not be possible to conduct transfers only during dry weather.

Requirements

Costs

Costs should be low except when covering a large loading/unloading area.

Maintenance

- Conduct regular inspections and make repairs as necessary. The frequency of repairs will depend on the age of the facility.
- Check loading and unloading equipment regularly for leaks.
- Conduct regular broom dry-sweeping of area.

Supplemental Information

Further Detail of the BMP

Special Circumstances for Indoor Loading/Unloading of Materials

Loading or unloading of liquids should occur in the manufacturing building so that any spills that are not completely retained can be discharged to the sanitary sewer, treatment plant, or treated in a manner consistent with local sewer authorities and permit requirements.

- For loading and unloading tank trucks to above and below ground storage tanks, the following procedures should be used:
  - The area where the transfer takes place should be paved. If the liquid is reactive with the asphalt, Portland cement should be used to pave the area.
  - The transfer area should be designed to prevent run-on of stormwater from adjacent areas. Sloping the pad and using a curb, like a speed bump, around the uphill side of the transfer area should reduce run-on.

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- The transfer area should be designed to prevent runoff of spilled liquids from the area. Sloping the area to a drain should prevent runoff. The drain should be connected to a dead-end sump or to the sanitary sewer. A positive control valve should be installed on the drain.

- For transfer from rail cars to storage tanks that must occur outside, use the following procedures:

  - Drip pans should be placed at locations where spillage may occur, such as hose connections, hose reels, and filler nozzles. Use drip pans when making and breaking connections.

  - Drip pan systems should be installed between the rails to collect spillage from tank cars.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

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Building & Grounds Maintenance SC-41



Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	✓
Nutrients	✓
Trash	
Metals	✓
Bacteria	✓
Oil and Grease	
Organics	

Description

Stormwater runoff from building and grounds maintenance activities can be contaminated with toxic hydrocarbons in solvents, fertilizers and pesticides, suspended solids, heavy metals, abnormal pH, and oils and greases. Utilizing the protocols in this fact sheet will prevent or reduce the discharge of pollutants to stormwater from building and grounds maintenance activities by washing and cleaning up with as little water as possible, following good landscape management practices, preventing and cleaning up spills immediately, keeping debris from entering the storm drains, and maintaining the stormwater collection system.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Pollution Prevention

- Switch to non-toxic chemicals for maintenance when possible.
- Choose cleaning agents that can be recycled.
- Encourage proper lawn management and landscaping, including use of native vegetation.

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SC-41 Building & Grounds Maintenance

- Encourage use of Integrated Pest Management techniques for pest control.
- Encourage proper onsite recycling of yard trimmings.
- Recycle residual paints, solvents, lumber, and other material as much as possible.

Suggested Protocols

Pressure Washing of Buildings, Rooftops, and Other Large Objects

- In situations where soaps or detergents are used and the surrounding area is paved, pressure washers must use a water collection device that enables collection of wash water and associated solids. A sump pump, wet vacuum or similarly effective device must be used to collect the runoff and loose materials. The collected runoff and solids must be disposed of properly.
- If soaps or detergents are not used, and the surrounding area is paved, wash runoff does not have to be collected but must be screened. Pressure washers must use filter fabric or some other type of screen on the ground and/or in the catch basin to trap the particles in wash water runoff.
- If you are pressure washing on a grassed area (with or without soap), runoff must be dispersed as sheet flow as much as possible, rather than as a concentrated stream. The wash runoff must remain on the grass and not drain to pavement.

Landscaping Activities

- Dispose of grass clippings, leaves, sticks, or other collected vegetation as garbage, or by composting. Do not dispose of collected vegetation into waterways or storm drainage systems.
- Use mulch or other erosion control measures on exposed soils.

Building Repair, Remodeling, and Construction

- Do not dump any toxic substance or liquid waste on the pavement, the ground, or toward a storm drain.
- Use ground or drop cloths underneath outdoor painting, scraping, and sandblasting work, and properly dispose of collected material daily.
- Use a ground cloth or oversized tub for activities such as paint mixing and tool cleaning.
- Clean paintbrushes and tools covered with water-based paints in sinks connected to sanitary sewers or in portable containers that can be dumped into a sanitary sewer drain. Brushes and tools covered with non-water-based paints, finishes, or other materials must be cleaned in a manner that enables collection of used solvents (e.g., paint thinner, turpentine, etc.) for recycling or proper disposal.
- Use a storm drain cover, filter fabric, or similarly effective runoff control mechanism if dust, grit, wash water, or other pollutants may escape the work area and enter a catch basin. This is particularly necessary on rainy days. The containment device(s) must be in place at the beginning of the work day, and accumulated dirty runoff and solids must be collected and disposed of before removing the containment device(s) at the end of the work day.

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Building & Grounds Maintenance SC-41

- If you need to de-water an excavation site, you may need to filter the water before discharging to a catch basin or off-site. If directed off-site, you should direct the water through hay bales and filter fabric or use other sediment filters or traps.
- Store toxic material under cover during precipitation events and when not in use. A cover would include tarps or other temporary cover material.

Mowing, Trimming, and Planting

- Dispose of leaves, sticks, or other collected vegetation as garbage, by composting or at a permitted landfill. Do not dispose of collected vegetation into waterways or storm drainage systems.
- Use mulch or other erosion control measures when soils are exposed.
- Place temporarily stockpiled material away from watercourses and drain inlets, and berm or cover stockpiles to prevent material releases to the storm drain system.
- Consider an alternative approach when bailing out muddy water: do not put it in the storm drain; pour over landscaped areas.
- Use hand weeding where practical.

Fertilizer and Pesticide Management

- Follow all federal, state, and local laws and regulations governing the use, storage, and disposal of fertilizers and pesticides and training of applicators and pest control advisors.
- Use less toxic pesticides that will do the job when applicable. Avoid use of copper-based pesticides if possible.
- Do not use pesticides if rain is expected.
- Do not mix or prepare pesticides for application near storm drains.
- Use the minimum amount needed for the job.
- Calibrate fertilizer distributors to avoid excessive application.
- Employ techniques to minimize off-target application (e.g., spray drift) of pesticides, including consideration of alternative application techniques.
- Apply pesticides only when wind speeds are low.
- Fertilizers should be worked into the soil rather than dumped or broadcast onto the surface.
- Irrigate slowly to prevent runoff and then only as much as is needed.
- Clean pavement and sidewalk if fertilizer is spilled on these surfaces before applying irrigation water.
- Dispose of empty pesticide containers according to the instructions on the container label.

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SC-41 Building & Grounds Maintenance

- Use up the pesticides. Rinse containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.
- Implement storage requirements for pesticide products with guidance from the local fire department and County Agricultural Commissioner. Provide secondary containment for pesticides.

Inspection

- Inspect irrigation system periodically to ensure that the right amount of water is being applied and that excessive runoff is not occurring. Minimize excess watering and repair leaks in the irrigation system as soon as they are observed.

Training

- Educate and train employees on pesticide use and in pesticide application techniques to prevent pollution.
- Train employees and contractors in proper techniques for spill containment and cleanup.
- Be sure the frequency of training takes into account the complexity of the operations and the nature of the staff.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Place a stockpile of spill cleanup materials, such as brooms, dustpans, and vacuum sweepers (if desired) near the storage area where it will be readily accessible.
- Have employees trained in spill containment and cleanup present during the loading/unloading of dangerous wastes, liquid chemicals, or other materials.
- Familiarize employees with the Spill Prevention Control and Countermeasure Plan.
- Clean up spills immediately.

Other Considerations

Alternative pest/weed controls may not be available, suitable, or effective in many cases.

Requirements

Costs

- Cost will vary depending on the type and size of facility.
- Overall costs should be low in comparison to other BMPs.

Maintenance

Sweep paved areas regularly to collect loose particles. Wipe up spills with rags and other absorbent material immediately, do not hose down the area to a storm drain.

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Building & Grounds Maintenance SC-41

Supplemental Information

Further Detail of the BMP

Fire Sprinkler Line Flushing

Building fire sprinkler line flushing may be a source of non-stormwater runoff pollution. The water entering the system is usually potable water, though in some areas it may be non-potable reclaimed wastewater. There are subsequent factors that may drastically reduce the quality of the water in such systems. Black iron pipe is usually used since it is cheaper than potable piping, but it is subject to rusting and results in lower quality water. Initially, the black iron pipe has an oil coating to protect it from rusting between manufacture and installation; this will contaminate the water from the first flush but not from subsequent flushes. Nitrates, poly-phosphates and other corrosion inhibitors, as well as fire suppressants and antifreeze may be added to the sprinkler water system. Water generally remains in the sprinkler system a long time (typically a year) and between flushes may accumulate iron, manganese, lead, copper, nickel, and zinc. The water generally becomes anoxic and contains living and dead bacteria and breakdown products from chlorination. This may result in a significant BOD problem and the water often smells. Consequently dispose fire sprinkler line flush water into the sanitary sewer. Do not allow discharge to storm drain or infiltration due to potential high levels of pollutants in fire sprinkler line water.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Mobile Cleaners Pilot Program: Final Report. 1997. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Pollution from Surface Cleaning Folder. 1996. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

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Site Design & Landscape Planning SD-10



Design Objectives

- ☑ Maximize Infiltration
- ☑ Provide Retention
- ☑ Slow Runoff
- ☑ Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Each project site possesses unique topographic, hydrologic, and vegetative features, some of which are more suitable for development than others. Integrating and incorporating appropriate landscape planning methodologies into the project design is the most effective action that can be done to minimize surface and groundwater contamination from stormwater.

Approach

Landscape planning should couple consideration of land suitability for urban uses with consideration of community goals and projected growth. Project plan designs should conserve natural areas to the extent possible, maximize natural water storage and infiltration opportunities, and protect slopes and channels.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment.

Design Considerations

Design requirements for site design and landscapes planning should conform to applicable standards and specifications of agencies with jurisdiction and be consistent with applicable General Plan and Local Area Plan policies.

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SD-10 Site Design & Landscape Planning

Designing New Installations

Begin the development of a plan for the landscape unit with attention to the following general principles:

- Formulate the plan on the basis of clearly articulated community goals. Carefully identify conflicts and choices between retaining and protecting desired resources and community growth.
- Map and assess land suitability for urban uses. Include the following landscape features in the assessment: wooded land, open unwooded land, steep slopes, erosion-prone soils, foundation suitability, soil suitability for waste disposal, aquifers, aquifer recharge areas, wetlands, floodplains, surface waters, agricultural lands, and various categories of urban land use. When appropriate, the assessment can highlight outstanding local or regional resources that the community determines should be protected (e.g., a scenic area, recreational area, threatened species habitat, farmland, fish run). Mapping and assessment should recognize not only these resources but also additional areas needed for their sustenance.

Project plan designs should conserve natural areas to the extent possible, maximize natural water storage and infiltration opportunities, and protect slopes and channels.

Conserve Natural Areas during Landscape Planning

If applicable, the following items are required and must be implemented in the site layout during the subdivision design and approval process, consistent with applicable General Plan and Local Area Plan policies:

- Cluster development on least-sensitive portions of a site while leaving the remaining land in a natural undisturbed condition.
- Limit clearing and grading of native vegetation at a site to the minimum amount needed to build lots, allow access, and provide fire protection.
- Maximize trees and other vegetation at each site by planting additional vegetation, clustering tree areas, and promoting the use of native and/or drought tolerant plants.
- Promote natural vegetation by using parking lot islands and other landscaped areas.
- Preserve riparian areas and wetlands.

Maximize Natural Water Storage and Infiltration Opportunities Within the Landscape Unit

- Promote the conservation of forest cover. Building on land that is already deforested affects basin hydrology to a lesser extent than converting forested land. Loss of forest cover reduces interception storage, detention in the organic forest floor layer, and water losses by evapotranspiration, resulting in large peak runoff increases and either their negative effects or the expense of countering them with structural solutions.
- Maintain natural storage reservoirs and drainage corridors, including depressions, areas of permeable soils, swales, and intermittent streams. Develop and implement policies and

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regulations to discourage the clearing, filling, and channelization of these features. Utilize them in drainage networks in preference to pipes, culverts, and engineered ditches.

- Evaluating infiltration opportunities by referring to the stormwater management manual for the jurisdiction and pay particular attention to the selection criteria for avoiding groundwater contamination, poor soils, and hydrogeological conditions that cause these facilities to fail. If necessary, locate developments with large amounts of impervious surfaces or a potential to produce relatively contaminated runoff away from groundwater recharge areas.

Protection of Slopes and Channels during Landscape Design

- Convey runoff safely from the tops of slopes.
- Avoid disturbing steep or unstable slopes.
- Avoid disturbing natural channels.
- Stabilize disturbed slopes as quickly as possible.
- Vegetate slopes with native or drought tolerant vegetation.
- Control and treat flows in landscaping and/or other controls prior to reaching existing natural drainage systems.
- Stabilize temporary and permanent channel crossings as quickly as possible, and ensure that increases in run-off velocity and frequency caused by the project do not erode the channel.
- Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels in accordance with applicable specifications to minimize erosion. Energy dissipaters shall be installed in such a way as to minimize impacts to receiving waters.
- Line on-site conveyance channels where appropriate, to reduce erosion caused by increased flow velocity due to increases in tributary impervious area. The first choice for linings should be grass or some other vegetative surface, since these materials not only reduce runoff velocities, but also provide water quality benefits from filtration and infiltration. If velocities in the channel are high enough to erode grass or other vegetative linings, riprap, concrete, soil cement, or geo-grid stabilization are other alternatives.
- Consider other design principles that are comparable and equally effective.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

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SD-10 Site Design & Landscape Planning

Redevelopment may present significant opportunity to add features which had not previously been implemented. Examples include incorporation of depressions, areas of permeable soils, and swales in newly redeveloped areas. While some site constraints may exist due to the status of already existing infrastructure, opportunities should not be missed to maximize infiltration, slow runoff, reduce impervious areas, disconnect directly connected impervious areas.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Stormwater Management Manual for Western Washington, Washington State Department of Ecology, August 2001.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

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Roof Runoff Controls SD-11



Rain Garden

Design Objectives

- ☑ Maximize Infiltration
- ☑ Provide Retention
- ☑ Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- ☑ Contain Pollutants
- Collect and Convey

Description

Various roof runoff controls are available to address stormwater that drains off rooftops. The objective is to reduce the total volume and rate of runoff from individual lots, and retain the pollutants on site that may be picked up from roofing materials and atmospheric deposition. Roof runoff controls consist of directing the roof runoff away from paved areas and mitigating flow to the storm drain system through one of several general approaches: cisterns or rain barrels; dry wells or infiltration trenches; pop-up emitters, and foundation planting. The first three approaches require the roof runoff to be contained in a gutter and downspout system. Foundation planting provides a vegetated strip under the drip line of the roof.

Approach

Design of individual lots for single-family homes as well as lots for higher density residential and commercial structures should consider site design provisions for containing and infiltrating roof runoff or directing roof runoff to vegetative swales or buffer areas. Retained water can be reused for watering gardens, lawns, and trees. Benefits to the environment include reduced demand for potable water used for irrigation, improved stormwater quality, increased groundwater recharge, decreased runoff volume and peak flows, and decreased flooding potential.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment.

Design Considerations

Designing New Installations

Cisterns or Rain Barrels

One method of addressing roof runoff is to direct roof downspouts to cisterns or rain barrels. A cistern is an above ground storage vessel with either a manually operated valve or a permanently open outlet. Roof runoff is temporarily stored and then released for irrigation or infiltration between storms. The number of rain

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barrels needed is a function of the rooftop area. Some low impact developers recommend that every house have at least 2 rain barrels, with a minimum storage capacity of 1000 liters. Roof barrels serve several purposes including mitigating the first flush from the roof which has a high volume, amount of contaminants, and thermal load. Several types of rain barrels are commercially available. Consideration must be given to selecting rain barrels that are vector proof and childproof. In addition, some barrels are designed with a bypass valve that filters out grit and other contaminants and routes overflow to a soak-away pit or rain garden.

If the cistern has an operable valve, the valve can be closed to store stormwater for irrigation or infiltration between storms. This system requires continual monitoring by the resident or grounds crews, but provides greater flexibility in water storage and metering. If a cistern is provided with an operable valve and water is stored inside for long periods, the cistern must be covered to prevent mosquitoes from breeding.

A cistern system with a permanently open outlet can also provide for metering stormwater runoff. If the cistern outlet is significantly smaller than the size of the downspout inlet (say ¼ to ½ inch diameter), runoff will build up inside the cistern during storms, and will empty out slowly after peak intensities subside. This is a feasible way to mitigate the peak flow increases caused by rooftop impervious land coverage, especially for the frequent, small storms.

Dry wells and Infiltration Trenches

Roof downspouts can be directed to dry wells or infiltration trenches. A dry well is constructed by excavating a hole in the ground and filling it with an open graded aggregate, and allowing the water to fill the dry well and infiltrate after the storm event. An underground connection from the downspout conveys water into the dry well, allowing it to be stored in the voids. To minimize sedimentation from lateral soil movement, the sides and top of the stone storage matrix can be wrapped in a permeable filter fabric, though the bottom may remain open. A perforated observation pipe can be inserted vertically into the dry well to allow for inspection and maintenance.

In practice, dry wells receiving runoff from single roof downspouts have been successful over long periods because they contain very little sediment. They must be sized according to the amount of rooftop runoff received, but are typically 4 to 5 feet square, and 2 to 3 feet deep, with a minimum of 1-foot soil cover over the top (maximum depth of 10 feet).

To protect the foundation, dry wells must be set away from the building at least 10 feet. They must be installed in solids that accommodate infiltration. In poorly drained soils, dry wells have very limited feasibility.

Infiltration trenches function in a similar manner and would be particularly effective for larger roof areas. An infiltration trench is a long, narrow, rock-filled trench with no outlet that receives stormwater runoff. These are described under Treatment Controls.

Pop-up Drainage Emitter

Roof downspouts can be directed to an underground pipe that daylights some distance from the building foundation, releasing the roof runoff through a pop-up emitter. Similar to a pop-up irrigation head, the emitter only opens when there is flow from the roof. The emitter remains flush to the ground during dry periods, for ease of lawn or landscape maintenance.

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Roof Runoff Controls SD-11

Foundation Planting

Landscape planting can be provided around the base to allow increased opportunities for stormwater infiltration and protect the soil from erosion caused by concentrated sheet flow coming off the roof. Foundation plantings can reduce the physical impact of water on the soil and provide a subsurface matrix of roots that encourage infiltration. These plantings must be sturdy enough to tolerate the heavy runoff sheet flows, and periodic soil saturation.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Supplemental Information

Examples

- City of Ottawa's Water Links Surface –Water Quality Protection Program
- City of Toronto Downspout Disconnection Program
- City of Boston, MA, Rain Barrel Demonstration Program

Other Resources

Hager, Marty Catherine, Stormwater, "Low-Impact Development", January/February 2003. www.stormh2o.com

Low Impact Urban Design Tools, Low Impact Development Design Center, Beltsville, MD. www.lid-stormwater.net

Start at the Source, Bay Area Stormwater Management Agencies Association, 1999 Edition

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Efficient Irrigation SD-12



Design Objectives

- ☑ Maximize Infiltration
- ☑ Provide Retention
- ☑ Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Irrigation water provided to landscaped areas may result in excess irrigation water being conveyed into stormwater drainage systems.

Approach

Project plan designs for development and redevelopment should include application methods of irrigation water that minimize runoff of excess irrigation water into the stormwater conveyance system.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment. (Detached residential single-family homes are typically excluded from this requirement.)

Design Considerations

Designing New Installations

The following methods to reduce excessive irrigation runoff should be considered, and incorporated and implemented where determined applicable and feasible by the Permittee:

- Employ rain-triggered shutoff devices to prevent irrigation after precipitation.
- Design irrigation systems to each landscape area's specific water requirements.
- Include design featuring flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.
- Implement landscape plans consistent with County or City water conservation resolutions, which may include provision of water sensors, programmable irrigation times (for short cycles), etc.

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SD-12 Efficient Irrigation

- Design timing and application methods of irrigation water to minimize the runoff of excess irrigation water into the storm water drainage system.
- Group plants with similar water requirements in order to reduce excess irrigation runoff and promote surface filtration. Choose plants with low irrigation requirements (for example, native or drought tolerant species). Consider design features such as:
  - Using mulches (such as wood chips or bar) in planter areas without ground cover to minimize sediment in runoff
  - Installing appropriate plant materials for the location, in accordance with amount of sunlight and climate, and use native plant materials where possible and/or as recommended by the landscape architect
  - Leaving a vegetative barrier along the property boundary and interior watercourses, to act as a pollutant filter, where appropriate and feasible
  - Choosing plants that minimize or eliminate the use of fertilizer or pesticides to sustain growth
- Employ other comparable, equally effective methods to reduce irrigation water runoff.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

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Storm Drain Signage SD-13



Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- ☑ Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Waste materials dumped into storm drain inlets can have severe impacts on receiving and ground waters. Posting notices regarding discharge prohibitions at storm drain inlets can prevent waste dumping. Storm drain signs and stencils are highly visible source controls that are typically placed directly adjacent to storm drain inlets.

Approach

The stencil or affixed sign contains a brief statement that prohibits dumping of improper materials into the urban runoff conveyance system. Storm drain messages have become a popular method of alerting the public about the effects of and the prohibitions against waste disposal.

Suitable Applications

Stencils and signs alert the public to the destination of pollutants discharged to the storm drain. Signs are appropriate in residential, commercial, and industrial areas, as well as any other area where contributions or dumping to storm drains is likely.

Design Considerations

Storm drain message markers or placards are recommended at all storm drain inlets within the boundary of a development project. The marker should be placed in clear sight facing toward anyone approaching the inlet from either side. All storm drain inlet locations should be identified on the development site map.

Designing New Installations

The following methods should be considered for inclusion in the project design and show on project plans:

- Provide stenciling or labeling of all storm drain inlets and catch basins, constructed or modified, within the project area with prohibitive language. Examples include "NO DUMPING

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– DRAINS TO OCEAN" and/or other graphical icons to discourage illegal dumping.

- Post signs with prohibitive language and/or graphical icons, which prohibit illegal dumping at public access points along channels and creeks within the project area.

Note - Some local agencies have approved specific signage and/or storm drain message placards for use. Consult local agency stormwater staff to determine specific requirements for placard types and methods of application.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. If the project meets the definition of "redevelopment", then the requirements stated under " designing new installations" above should be included in all project design plans.

Additional Information

Maintenance Considerations

- Legibility of markers and signs should be maintained. If required by the agency with jurisdiction over the project, the owner/operator or homeowner's association should enter into a maintenance agreement with the agency or record a deed restriction upon the property title to maintain the legibility of placards or signs.

Placement

- Signage on top of curbs tends to weather and fade.
- Signage on face of curbs tends to be worn by contact with vehicle tires and sweeper brooms.

Supplemental Information

Examples

- Most MS4 programs have storm drain signage programs. Some MS4 programs will provide stencils, or arrange for volunteers to stencil storm drains as part of their outreach program.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

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Maintenance Bays & Docks SD-31



Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- ☑ Prohibit Dumping of Improper Materials
- ☑ Contain Pollutants
- Collect and Convey

Description

Several measures can be taken to prevent operations at maintenance bays and loading docks from contributing a variety of toxic compounds, oil and grease, heavy metals, nutrients, suspended solids, and other pollutants to the stormwater conveyance system.

Approach

In designs for maintenance bays and loading docks, containment is encouraged. Preventative measures include overflow containment structures and dead-end sumps. However, in the case of loading docks from grocery stores and warehouse/distribution centers, engineered infiltration systems may be considered.

Suitable Applications

Appropriate applications include commercial and industrial areas planned for development or redevelopment.

Design Considerations

Design requirements for vehicle maintenance and repair are governed by Building and Fire Codes, and by current local agency ordinances, and zoning requirements. The design criteria described in this fact sheet are meant to enhance and be consistent with these code requirements.

Designing New Installations

Designs of maintenance bays should consider the following:

- Repair/maintenance bays and vehicle parts with fluids should be indoors; or designed to preclude urban run-on and runoff.
- Repair/maintenance floor areas should be paved with Portland cement concrete (or equivalent smooth impervious surface).

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SD-31 Maintenance Bays & Docks

- Repair/maintenance bays should be designed to capture all wash water leaks and spills. Provide impermeable berms, drop inlets, trench catch basins, or overflow containment structures around repair bays to prevent spilled materials and wash-down waters form entering the storm drain system. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is prohibited. If required by local jurisdiction, obtain an Industrial Waste Discharge Permit.
- Other features may be comparable and equally effective.

The following designs of loading/unloading dock areas should be considered:

- Loading dock areas should be covered, or drainage should be designed to preclude urban run-on and runoff.
- Direct connections into storm drains from depressed loading docks (truck wells) are prohibited.
- Below-grade loading docks from grocery stores and warehouse/distribution centers of fresh food items should drain through water quality inlets, or to an engineered infiltration system, or an equally effective alternative. Pre-treatment may also be required.
- Other features may be comparable and equally effective.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Additional Information

Stormwater and non-stormwater will accumulate in containment areas and sumps with impervious surfaces. Contaminated accumulated water must be disposed of in accordance with applicable laws and cannot be discharged directly to the storm drain or sanitary sewer system without the appropriate permit.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

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Trash Storage Areas SD-32

Description

Trash storage areas are areas where a trash receptacle (s) are located for use as a repository for solid wastes. Stormwater runoff from areas where trash is stored or disposed of can be polluted. In addition, loose trash and debris can be easily transported by water or wind into nearby storm drain inlets, channels, and/or creeks. Waste handling operations that may be sources of stormwater pollution include dumpsters, litter control, and waste piles.

Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- ☑ Contain Pollutants
- Collect and Convey

Approach

This fact sheet contains details on the specific measures required to prevent or reduce pollutants in stormwater runoff associated with trash storage and handling. Preventative measures including enclosures, containment structures, and impervious pavements to mitigate spills, should be used to reduce the likelihood of contamination.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment. (Detached residential single-family homes are typically excluded from this requirement.)

Design Considerations

Design requirements for waste handling areas are governed by Building and Fire Codes, and by current local agency ordinances and zoning requirements. The design criteria described in this fact sheet are meant to enhance and be consistent with these code and ordinance requirements. Hazardous waste should be handled in accordance with legal requirements established in Title 22, California Code of Regulation.

Wastes from commercial and industrial sites are typically hauled by either public or commercial carriers that may have design or access requirements for waste storage areas. The design criteria in this fact sheet are recommendations and are not intended to be in conflict with requirements established by the waste hauler. The waste hauler should be contacted prior to the design of your site trash collection areas. Conflicts or issues should be discussed with the local agency.

Designing New Installations

Trash storage areas should be designed to consider the following structural or treatment control BMPs:

- Design trash container areas so that drainage from adjoining roofs and pavement is diverted around the area(s) to avoid run-on. This might include berming or grading the waste handling area to prevent run-on of stormwater.
- Make sure trash container areas are screened or walled to prevent off-site transport of trash.

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

SD-32 Trash Storage Areas

- Use lined bins or dumpsters to reduce leaking of liquid waste.
- Provide roofs, awnings, or attached lids on all trash containers to minimize direct precipitation and prevent rainfall from entering containers.
- Pave trash storage areas with an impervious surface to mitigate spills.
- Do not locate storm drains in immediate vicinity of the trash storage area.
- Post signs on all dumpsters informing users that hazardous materials are not to be disposed of therein.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Additional Information

Maintenance Considerations

The integrity of structural elements that are subject to damage (i.e., screens, covers, and signs) must be maintained by the owner/operator. Maintenance agreements between the local agency and the owner/operator may be required. Some agencies will require maintenance deed restrictions to be recorded of the property title. If required by the local agency, maintenance agreements or deed restrictions must be executed by the owner/operator before improvement plans are approved.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

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Street Sweeping and Vacuuming SE-7



Categories

EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	☑
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	☑
Metals	
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

None

Description and Purpose

Street sweeping and vacuuming includes use of self-propelled and walk-behind equipment to remove sediment from streets and roadways, and to clean paved surfaces in preparation for final paving. Sweeping and vacuuming prevents sediment from the project site from entering storm drains or receiving waters.

Suitable Applications

Sweeping and vacuuming are suitable anywhere sediment is tracked from the project site onto public or private paved streets and roads, typically at points of egress. Sweeping and vacuuming are also applicable during preparation of paved surfaces for final paving.

Limitations

Sweeping and vacuuming may not be effective when sediment is wet or when tracked soil is caked (caked soil may need to be scraped loose).

Implementation

- Controlling the number of points where vehicles can leave the site will allow sweeping and vacuuming efforts to be focused, and perhaps save money.
- Inspect potential sediment tracking locations daily.
- Visible sediment tracking should be swept or vacuumed on a daily basis.
- Do not use kick brooms or sweeper attachments. These tend to spread the dirt rather than remove it.

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Street Sweeping and Vacuuming SE-7

- If not mixed with debris or trash, consider incorporating the removed sediment back into the project

Costs

Rental rates for self-propelled sweepers vary depending on hopper size and duration of rental. Expect rental rates from $58/hour (3 yd^3 hopper) to $88/hour (9 yd^3 hopper), plus operator costs. Hourly production rates vary with the amount of area to be swept and amount of sediment. Match the hopper size to the area and expect sediment load to minimize time spent dumping.

Inspection and Maintenance

- Inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- When actively in use, points of ingress and egress must be inspected daily.
- When tracked or spilled sediment is observed outside the construction limits, it must be removed at least daily. More frequent removal, even continuous removal, may be required in some jurisdictions.
- Be careful not to sweep up any unknown substance or any object that may be potentially hazardous.
- Adjust brooms frequently; maximize efficiency of sweeping operations.
- After sweeping is finished, properly dispose of sweeper wastes at an approved dumpsite.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Labor Surcharge and Equipment Rental Rates, State of California Department of Transportation (Caltrans), April 1, 2002 – March 31, 2003.

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Infiltration Basin TC-11



Design Considerations

- Soil for Infiltration
- Slope
- Aesthetics

Targeted Constituents

☑	Sediment	■
☑	Nutrients	■
☑	Trash	■
☑	Metals	■
☑	Bacteria	■
☑	Oil and Grease	■
☑	Organics	■

Legend ***(Removal Effectiveness)***

- ● Low ■ High
- ▲ Medium

Description

An infiltration basin is a shallow impoundment that is designed to infiltrate stormwater. Infiltration basins use the natural filtering ability of the soil to remove pollutants in stormwater runoff. Infiltration facilities store runoff until it gradually exfiltrates through the soil and eventually into the water table. This practice has high pollutant removal efficiency and can also help recharge groundwater, thus helping to maintain low flows in stream systems. Infiltration basins can be challenging to apply on many sites, however, because of soils requirements. In addition, some studies have shown relatively high failure rates compared with other management practices.

California Experience

Infiltration basins have a long history of use in California, especially in the Central Valley. Basins located in Fresno were among those initially evaluated in the National Urban Runoff Program and were found to be effective at reducing the volume of runoff, while posing little long-term threat to groundwater quality (EPA, 1983; Schroeder, 1995). Proper siting of these devices is crucial as underscored by the experience of Caltrans in siting two basins in Southern California. The basin with marginal separation from groundwater and soil permeability failed immediately and could never be rehabilitated.

Advantages

- Provides 100% reduction in the load discharged to surface waters.
- The principal benefit of infiltration basins is the approximation of pre-development hydrology during which a

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significant portion of the average annual rainfall runoff is infiltrated and evaporated rather than flushed directly to creeks.

- If the water quality volume is adequately sized, infiltration basins can be useful for providing control of channel forming (erosion) and high frequency (generally less than the 2-year) flood events.

Limitations

- May not be appropriate for industrial sites or locations where spills may occur.
- Infiltration basins require a minimum soil infiltration rate of 0.5 inches/hour, not appropriate at sites with Hydrologic Soil Types C and D.
- If infiltration rates exceed 2.4 inches/hour, then the runoff should be fully treated prior to infiltration to protect groundwater quality.
- Not suitable on fill sites or steep slopes.
- Risk of groundwater contamination in very coarse soils.
- Upstream drainage area must be completely stabilized before construction.
- Difficult to restore functioning of infiltration basins once clogged.

Design and Sizing Guidelines

- Water quality volume determined by local requirements or sized so that 85% of the annual runoff volume is captured.
- Basin sized so that the entire water quality volume is infiltrated within 48 hours.
- Vegetation establishment on the basin floor may help reduce the clogging rate.

Construction/Inspection Considerations

- Before construction begins, stabilize the entire area draining to the facility. If impossible, place a diversion berm around the perimeter of the infiltration site to prevent sediment entrance during construction or remove the top 2 inches of soil after the site is stabililized. Stabilize the entire contributing drainage area, including the side slopes, before allowing any runoff to enter once construction is complete.
- Place excavated material such that it can not be washed back into the basin if a storm occurs during construction of the facility.
- Build the basin without driving heavy equipment over the infiltration surface. Any equipment driven on the surface should have extra-wide ("low pressure") tires. Prior to any construction, rope off the infiltration area to stop entrance by unwanted equipment.
- After final grading, till the infiltration surface deeply.
- Use appropriate erosion control seed mix for the specific project and location.

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Infiltration Basin TC-11

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Performance

As water migrates through porous soil and rock, pollutant attenuation mechanisms include precipitation, sorption, physical filtration, and bacterial degradation. If functioning properly, this approach is presumed to have high removal efficiencies for particulate pollutants and moderate removal of soluble pollutants. Actual pollutant removal in the subsurface would be expected to vary depending upon site-specific soil types. This technology eliminates discharge to surface waters except for the very largest storms; consequently, complete removal of all stormwater constituents can be assumed.

There remain some concerns about the potential for groundwater contamination despite the findings of the NURP and Nightingale (1975; 1987a,b,c; 1989). For instance, a report by Pitt et al. (1994) highlighted the potential for groundwater contamination from intentional and unintentional stormwater infiltration. That report recommends that infiltration facilities not be sited in areas where high concentrations are present or where there is a potential for spills of toxic material. Conversely, Schroeder (1995) reported that there was no evidence of groundwater impacts from an infiltration basin serving a large industrial catchment in Fresno, CA.

Siting Criteria

The key element in siting infiltration basins is identifying sites with appropriate soil and hydrogeologic properties, which is critical for long term performance. In one study conducted in Prince George's County, Maryland (Galli, 1992), all of the infiltration basins investigated clogged within 2 years. It is believed that these failures were for the most part due to allowing infiltration at sites with rates of less than 0.5 in/hr, basing siting on soil type rather than field infiltration tests, and poor construction practices that resulted in soil compaction of the basin invert.

A study of 23 infiltration basins in the Pacific Northwest showed better long-term performance in an area with highly permeable soils (Hilding, 1996). In this study, few of the infiltration basins had failed after 10 years. Consequently, the following guidelines for identifying appropriate soil and subsurface conditions should be rigorously adhered to.

- Determine soil type (consider RCS soil type 'A, B or C' only) from mapping and consult USDA soil survey tables to review other parameters such as the amount of silt and clay, presence of a restrictive layer or seasonal high water table, and estimated permeability. The soil should not have more than 30% clay or more than 40% of clay and silt combined. Eliminate sites that are clearly unsuitable for infiltration.
- Groundwater separation should be at least 3 m from the basin invert to the measured ground water elevation. There is concern at the state and regional levels of the impact on groundwater quality from infiltrated runoff, especially when the separation between groundwater and the surface is small.
- Location away from buildings, slopes and highway pavement (greater than 6 m) and wells and bridge structures (greater than 30 m). Sites constructed of fill, having a base flow or with a slope greater than 15% should not be considered.
- Ensure that adequate head is available to operate flow splitter structures (to allow the basin to be offline) without ponding in the splitter structure or creating backwater upstream of the splitter.

- Base flow should not be present in the tributary watershed.

Secondary Screening Based on Site Geotechnical Investigation

- At least three in-hole conductivity tests shall be performed using USBR 7300-89 or Bouwer-Rice procedures (the latter if groundwater is encountered within the boring), two tests at different locations within the proposed basin and the third down gradient by no more than approximately 10 m. The tests shall measure permeability in the side slopes and the bed within a depth of 3 m of the invert.

- The minimum acceptable hydraulic conductivity as measured in any of the three required test holes is 13 mm/hr. If any test hole shows less than the minimum value, the site should be disqualified from further consideration.

- Exclude from consideration sites constructed in fill or partially in fill unless no silts or clays are present in the soil boring. Fill tends to be compacted, with clays in a dispersed rather than flocculated state, greatly reducing permeability.

- The geotechnical investigation should be such that a good understanding is gained as to how the stormwater runoff will move in the soil (horizontally or vertically) and if there are any geological conditions that could inhibit the movement of water.

Additional Design Guidelines

(1) Basin Sizing - The required water quality volume is determined by local regulations or sufficient to capture 85% of the annual runoff.

(2) Provide pretreatment if sediment loading is a maintenance concern for the basin.

(3) Include energy dissipation in the inlet design for the basins. Avoid designs that include a permanent pool to reduce opportunity for standing water and associated vector problems.

(4) Basin invert area should be determined by the equation:

$$A = \frac{WQV}{kt}$$

where A = Basin invert area (m^2)

WQV = water quality volume (m^3)

k = 0.5 times the lowest field-measured hydraulic conductivity (m/hr)

t = drawdown time (48 hr)

(5) The use of vertical piping, either for distribution or infiltration enhancement shall not be allowed to avoid device classification as a Class V injection well per 40 CFR146.5(e)(4).

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Infiltration Basin TC-11

Maintenance

Regular maintenance is critical to the successful operation of infiltration basins. Recommended operation and maintenance guidelines include:

- Inspections and maintenance to ensure that water infiltrates into the subsurface completely (recommended infiltration rate of 72 hours or less) and that vegetation is carefully managed to prevent creating mosquito and other vector habitats.
- Observe drain time for the design storm after completion or modification of the facility to confirm that the desired drain time has been obtained.
- Schedule semiannual inspections for beginning and end of the wet season to identify potential problems such as erosion of the basin side slopes and invert, standing water, trash and debris, and sediment accumulation.
- Remove accumulated trash and debris in the basin at the start and end of the wet season.
- Inspect for standing water at the end of the wet season.
- Trim vegetation at the beginning and end of the wet season to prevent establishment of woody vegetation and for aesthetic and vector reasons.
- Remove accumulated sediment and regrade when the accumulated sediment volume exceeds 10% of the basin.
- If erosion is occurring within the basin, revegetate immediately and stabilize with an erosion control mulch or mat until vegetation cover is established.
- To avoid reversing soil development, scarification or other disturbance should only be performed when there are actual signs of clogging, rather than on a routine basis. Always remove deposited sediments before scarification, and use a hand-guided rotary tiller, if possible, or a disc harrow pulled by a very light tractor.

Cost

Infiltration basins are relatively cost-effective practices because little infrastructure is needed when constructing them. One study estimated the total construction cost at about $2 per ft (adjusted for inflation) of storage for a 0.25-acre basin (SWRPC, 1991). As with other BMPs, these published cost estimates may deviate greatly from what might be incurred at a specific site. For instance, Caltrans spent about $18/ft^3 for the two infiltration basins constructed in southern California, each of which had a water quality volume of about 0.34 ac.-ft. Much of the higher cost can be attributed to changes in the storm drain system necessary to route the runoff to the basin locations.

Infiltration basins typically consume about 2 to 3% of the site draining to them, which is relatively small. Additional space may be required for buffer, landscaping, access road, and fencing. Maintenance costs are estimated at 5 to 10% of construction costs.

One cost concern associated with infiltration practices is the maintenance burden and longevity. If improperly maintained, infiltration basins have a high failure rate. Thus, it may be necessary to replace the basin with a different technology after a relatively short period of time.

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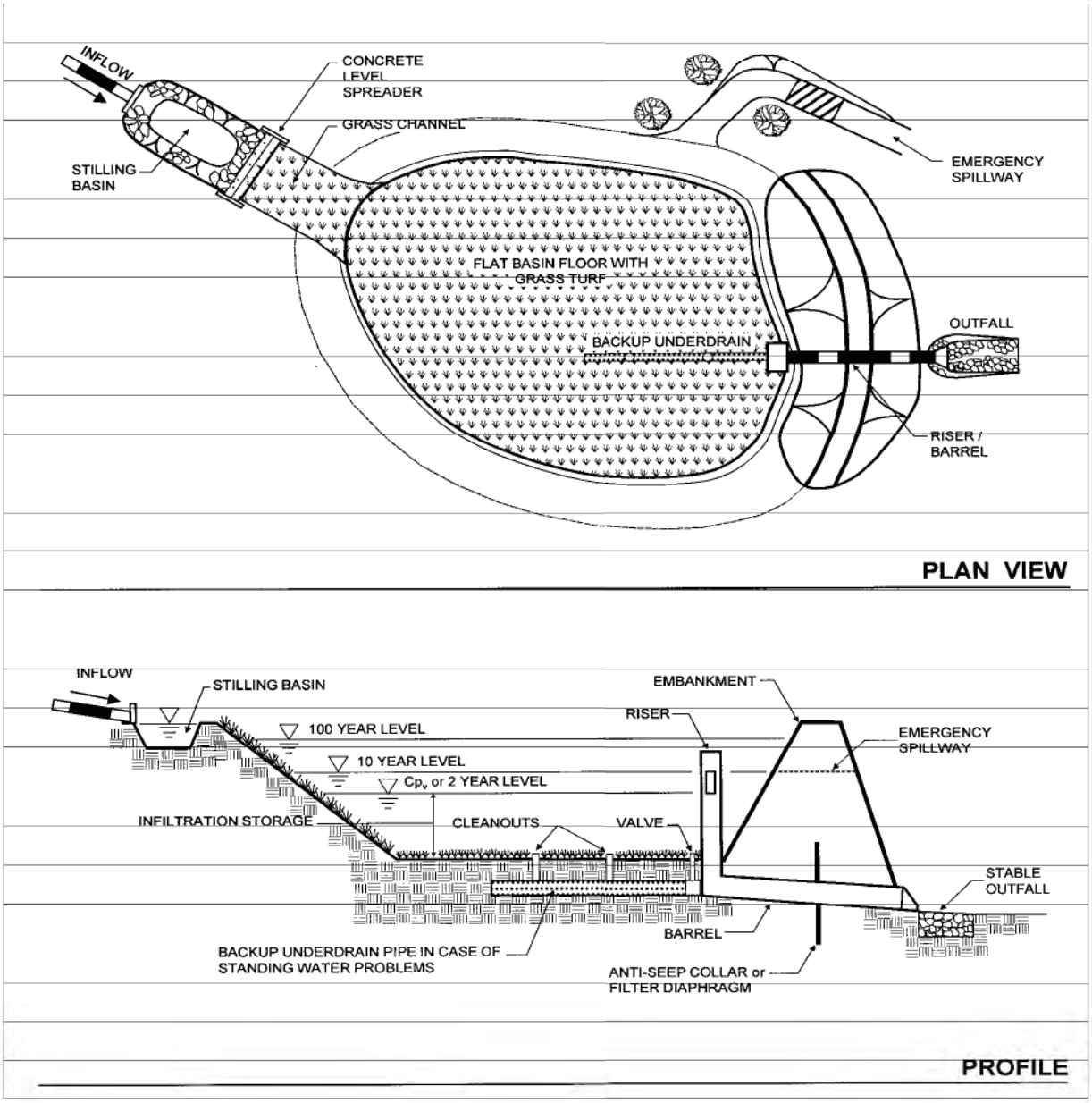
Packet Pg. 5143

TC-11 Infiltration Basin



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STORMWATER Pollution Prevention

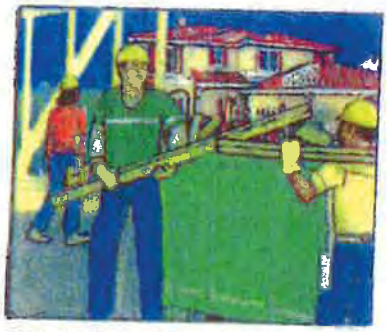
CONSTRUCTION

Cement wash, sediment, vehicle fluids, dust and hazardous debris from construction sites often make their way into the San Bernardino County storm drain system and do not get treated before reaching the Santa Ana River. This pollutes our drinking water and contaminates waterways, making them unsafe for people and wildlife. Follow these best management practices to prevent pollution and protect public health.



Store Materials Safely

Keep construction materials and debris away from the street, gutter and storm drains. Cover exposed stockpiles of soil, sand or gravel and excavated material with plastic sheeting, protected from rain, wind and runoff.



Ordering Materials & Recycling Waste

Reduce waste by ordering only the amounts of materials needed for the job. Use recycled or recyclable materials whenever possible. You can recycle broken asphalt, concrete, wood, and cleared vegetation. Non-recyclable materials should be taken to a landfill or disposed of as hazardous waste. For recycling and disposal information, call (909) 386-8401.



Cleaning & Preventing Spills

Use a drip pan and funnel when draining or pouring fluids. Sweep up dry spills, instead of hosing. Be ready for spills by preparing and using spill containment and cleanup kits that include safety equipment and dry cleanup materials such as kitty litter or sawdust. To report serious spills, call 911.



Preventing Erosion

Avoid excavation or grading during wet weather. Plant temporary vegetation or add hydromulch on slopes where construction is not immediately planned, and permanent vegetation once excavation and grading are complete. Construct diversion dikes to channel runoff to a detention basin and around the construction site. Channels can be lined with grass or roughened pavement to reduce runoff velocity.



Maintaining Vehicles & Equipment

Maintain and refuel vehicles and equipment at a single location on-site, away from the street, gutter and storm drains. Perform major equipment repairs and washings off-site. Inspect vehicles and equipment frequently for leaks, and prevent leaks from stored vehicles by draining gas, hydraulic oil, transmission, brake and radiator fluids.

To report illegal dumping or for more information on stormwater pollution prevention, call:

1 (800) CLEANUP

www.1800cleanup.org

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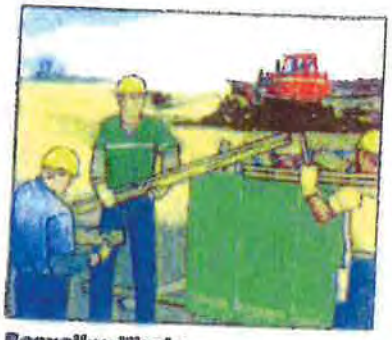
STORMWATER Pollution Prevention

EXCAVATION AND GRADING

Sediment, cement wash, asphalt and vehicle fluids from soil excavation and grading often make their way into the San Bernardino County storm drain system and do not get treated before reaching the Santa Ana River. This pollutes our drinking water and contaminates waterways, making them unsafe for people and wildlife. Follow these best management practices to prevent pollution and protect public health.



Recycling Waste
Recycle broken asphalt, concrete, wood, and cleared vegetation whenever possible. Non-recyclable materials should be taken to a landfill or disposed of as hazardous waste. For recycling and disposal information, call (909) 386-8401.



Maintaining Vehicles & Equipment
Maintain and refuel vehicles and equipment at a single location on-site, away from the street, gutters and storm drains. Perform major equipment repairs and washings off-site. Inspect vehicles and equipment frequently for leaks. Use gravel approaches where truck traffic is heavy to reduce soil compaction and limit the tracking of sediment into the street.



Cleaning & Preventing Spills
Use a drip pan and funnel when draining or pouring fluids. Sweep up dry spills, instead of hosing. Be ready for spills by preparing and using spill containment and cleanup kits that include safety equipment and dry cleanup materials such as kitty litter or sawdust. Prevent leaks from stored vehicles by draining gas, hydraulic oil, transmission, brake and radiator fluids. To report serious spills, call 911.



Storing Materials
Keep construction materials and debris away from the street, gutter and storm drains. Cover exposed stockpiles of soil, sand or gravel and excavated material with plastic sheeting, protected from rain, wind and runoff.



Preventing Erosion
Avoid excavation or grading during wet weather. Plant temporary vegetation on slopes where construction is not immediately planned, and permanent vegetation once excavation and grading are complete. Construct diversion dikes to channel runoff. Channels can be lined with grass or roughened pavement to reduce runoff velocity.



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1 (800) CLEANUP

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STORMWATER Pollution Prevention

FRESH CONCRETE & MORTAR APPLICATION

Cement wash, sediment, vehicle fluids, dust and hazardous debris from construction sites often make their way into the San Bernardino County storm drain system and do not get treated before reaching the Santa Ana River. This pollutes our drinking water and contaminates waterways, making them unsafe for people and wildlife. Follow these best management practices to prevent pollution and protect public health.



Storing Materials

Keep construction materials and debris away from the street, gutter and storm drains. Secure open bags of cement and cover exposed stockpiles of soil, sand or gravel and excavated material with plastic sheeting, protected from rain, wind and runoff.



Ordering Materials & Recycling Waste

Reduce waste by ordering only the amounts of materials needed for the job. Use recycled or recyclable materials whenever possible. When breaking up paving, recycle the pieces at a crushing company. You can also recycle broken asphalt, concrete, wood, and cleared vegetation. Non-recyclable materials should be taken to a landfill or disposed of as hazardous waste. Call (909) 386-8401 for recycling and disposal information.



During Construction

Schedule excavation and grading during dry weather. Prevent mortar and cement from entering the street and storm drains by placing erosion controls. Setup small mixers on tarps or drop cloths, for easy cleanup of debris. Never bury waste material. Recycle or dispose of it as hazardous waste.



Cleaning Up

Wash concrete dust onto designated dirt areas, not down driveways or into the street or storm drains. Wash out concrete mixers and equipment in specified washout areas, where water can flow into a containment pond. Cement washwater can be recycled by pumping it back into cement mixers for reuse. Never dispose of cement washout into driveways, streets, gutters, storm drains or drainage ditches.



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www.1800cleanup.org

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STORMWATER Pollution Prevention

ROADWORK AND PAVING

Asphalt, saw-cut slurry and excavated materials from road paving, surfacing and pavement removal often make their way into the San Bernardino County storm drain system and do not get treated before reaching the Santa Ana River. This pollutes our drinking water and contaminates waterways, making them unsafe for people and wildlife. Follow these best management practices to prevent pollution and protect public health.



Preventing Erosion

Schedule excavation and grading work during dry weather. Develop and implement erosion and sediment control plans for excavated embankments. Cover exposed stockpiles of soil, sand or gravel and excavated material with plastic sheeting, protected from rain, wind and runoff.



During Construction

Cover catch basins and maintenance holes when applying seal coat, slurry seal or fog seal. Use check dams, ditches or berms around excavations, and avoid over applying water for dust control. Never wash excess materials from exposed aggregate or concrete into the street, gutter or a storm drain.



Maintaining Vehicles & Equipment

Maintain and refuel vehicles and equipment at a single location on-site, away from the street, gutter and storm drains. Perform major equipment repairs and washings off-site. Inspect vehicles and equipment frequently for leaks, and prevent leaks from stored vehicles by draining gas, hydraulic oil, transmission, brake and radiator fluids.

Asphalt & Concrete Removal

Barricade storm drain openings during saw-cutting, and recycle broken up pavement at a crushing company. For recycling information, call (909) 386-8401.



Cleaning & Preventing Spills

Be ready for spills by preparing and using spill containment and cleanup kits that include safety equipment and dry cleanup materials such as kitty litter or sawdust. Sweep up dry spills, instead of hosing. Prevent spills from paver machines by using drip pans, or by placing absorbent materials like cloths or rags under the machines when not in use. To report serious spills, call 911.



To report illegal dumping or for more information on stormwater pollution prevention, call:

1 (800) CLEANUP

www.1800cleanup.org

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Pollution Prevention STORMWATER

PAINTING

Paints, solvents, adhesives and other toxic chemicals used in painting often make their way into the San Bernardino County storm drain system and do not get treated before reaching the Santa Ana River. This pollutes our drinking water and contaminates waterways, making them unsafe for people and wildlife. Follow these simple tips to prevent pollution and protect our health.



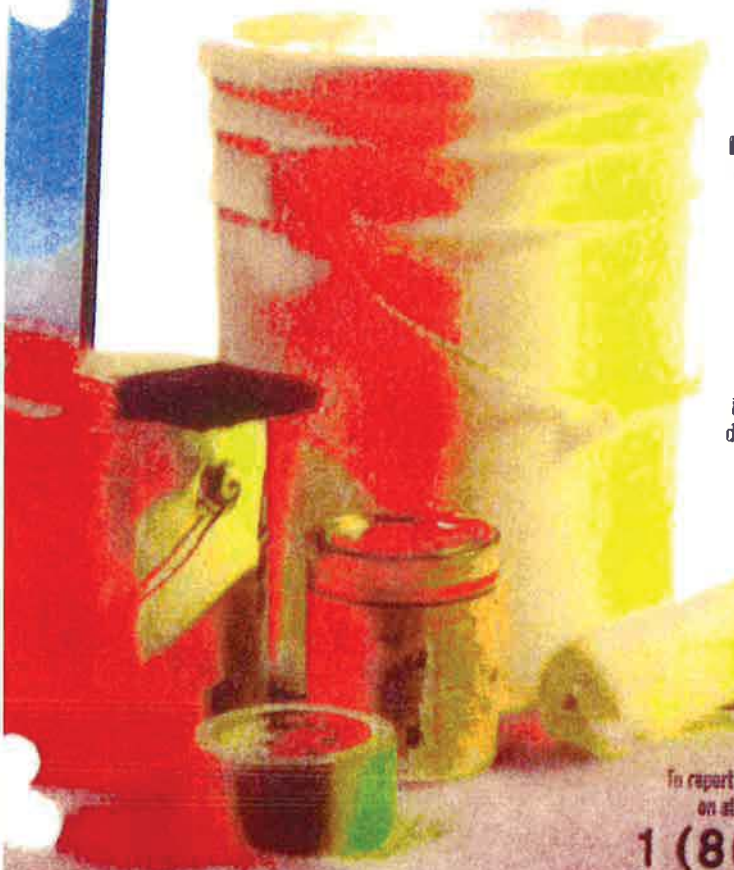
Water-Based Paints
Use water-based paints whenever possible. They are less toxic than oil-based paints and easier to clean up. Look for products labeled "latex" or "cleans with water."



Paint Removal
Sweep up paint stripping residue, chips and dust instead of hosing into the street and dispose of them safely at a household hazardous waste collection facility. Call (800) CLEANUP for the facility in your area.



Painting Cleanup
Never clean brushes or rinse paint containers in the street, gutter or near a storm drain. Clean water-based paints in the sink. Clean oil-based paints with thinner, which can be reused by putting it in a jar to settle out the paint particles and then pouring off the clear liquid for future use. Wrap dried paint residue in newspaper and dispose of it in the trash.



Exterior Paint Removal
When stripping or cleaning building exteriors with high-pressure water, block nearby storm drains and divert washwater onto a designated dirt area. Ask your local wastewater treatment authority if you can collect building cleaning water and discharge it to the sewer.



Recycling Paint
Recycle leftover paint at a household hazardous waste collection facility, save it for touch ups or give it to someone who can use it, like a theatre group, school, city or community organization.

To report illegal dumping or for more information on stormwater pollution prevention, call:

1 (800) CLEANUP

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STORMWATER Pollution Prevention

HOME & GARDEN

Yard waste and household toxics like paints and pesticides often make their way into the San Bernardino County storm drain system and do not get treated before reaching the Santa Ana River. This pollutes our drinking water and contaminates waterways, making them unsafe for people and wildlife. Follow these simple tips to prevent pollution and protect your health.



Recycle Household Hazardous Waste
Household products like paint, pesticides, solvents and cleaners are too dangerous to dump and too toxic to trash. Take them to be recycled at a convenient household hazardous waste collection facility. Call (800) CLEANUP for the facility in your area.



Disposing of Yard Waste
Recycle leaves, grass clippings and other yard waste, instead of blowing, sweeping or hosing into the street. Try grasscycling, leaving grass clippings on your lawn instead of using a grass catcher. The clippings act as a natural fertilizer, and because grass is mostly water, it also irrigates your lawn, conserving water.



Use Fertilizers & Pesticides Safely
Fertilizers and pesticides are often carried into the storm drain system by sprinkler runoff. Try using organic or non-toxic alternatives. If you use chemical fertilizers or pesticides, avoid applying near curbs and driveways and never apply before a rain.



Planting in the Yard
Produce less yard waste and save water by planting low maintenance, drought-tolerant trees and shrubs. Using drip irrigation, soaker hoses or micro-spray systems for flower beds and vegetation can also help reduce your water bill and prevent runoff.



Use Water Wisely
Cut your water costs and prevent runoff by controlling the amount of water and direction of sprinklers. The average lawn needs about an inch of water a week, including rainfall, or 10 to 20 minutes of watering. A half-inch per week is enough for fall and spring. Sprinklers should be on long enough to allow water to soak into the ground but not so long as to cause runoff.

To report illegal dumping or for more information on stormwater pollution prevention, call:

1 (800) CLEANUP

www.1800cleanup.org

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Prevención de Contaminación del Desagüe

TRABAJO DE CARRETERAS & PAVIMENTO

Asfalto, mezcla y materiales de excavaciones del pavimento acaban por llegar a los drenajes del Condado de San Bernardino y terminando en el Rio de Santa Ana. Esto contamina el agua que tomamos, haciendola peligorsa para la gente y la vida salvaje. Sigue estas practicas para prevenir la contaminación y protejer la salud publica.



Previniendo Erosiones

Planea las excavaciones trabajo de jardineria durante el clima seco. Desarrolla e implementa planes de embarcamientos de control de sedimento y excavaciones. Cubre montones de tierra, grava y otros materiales con un plastico para protejerlos de la lluvia, aire y desagüe.



Durante Construcción

Cubre los lavados y de mantenimiento a los hoyos al aplicar selladura o mezcla. Revisa las areas de excavaciones, y evita pasarte de agua para prevenir polvadura. Nunca laves los materiales llenos de concreto en la calle, drenajes o en el desagüe.



Mantenimiento de Vehiculos & Herramientas

Has el mantenimiento y carga de vehiculos en el mismo lugar, lejos de la calle, las alcanterillas y los drenajes. Inspecciona los vehiculos y el equipo de cualquier goteadura y evita goteaduras de autos que no se usan vaciandoles la gasolina, aceite de transmision, frenos y liquidos del radiador.

Removiendo Asfalto & Concreto

Bloquea alrededor de los drenajes cuando estes usando las maquinas de sierra, tambien recicla todo el pavimento roto en la compañia demolidora. Para más información llama al (909) 386-8491.



Limpiando & Previniendo Derrames

Mantente siempre preparado para cualquier derrame, usa siempre las herramientas de seguridad al igual que materiales como, tierra para desechos de gato o aserrin Barre los derrames en ves de lavarlos con la manguera. Previene los derrames de las maquinas usando embudos o colocando garros para absorver cualquier liquido. Para reportar derrames llama al 911.



Para reportar actividades ilegales u obtener más información de la prevención de contaminación llamar al:

1 (800) CLEANUP

www.1800cleanup.org

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Prevención de Contaminación del Desagüe

PINTURA Pintura, solventes y otros químicos peligrosos que se usan al pintar acaban por llegar a los drenajes del Condado de San Bernardino y terminando en el Rio de Santa Ana. Esto contamina el agua que tomamos, haciendola peligorsa para la gente y la vida salvaje. Sigue estas practicas para prevenir la contaminación y protejer la salud publica.



Pinturas de Agua
Usa pinturas de agua cuando sea posible. Son menos toxicos que las pinturas de aceite y mas faciles para limpiar. Busca los productos "latex" or "cleans with water".



Removiendo Pintura
Residuos de pintura, polvo de pintura y pinturas que contienen plomo son peligrosas. Borrelos en ves de lavarlos con la manguera y desechalos en unlugar de colección de desechos peligrosos. Llama al (800) CLEANUP para un lugar en tu area.



Limpiando Pintura
Nunca laves las brochas ni los contenedores de pintura en la calle, coladeras o desagües. Las de pintura de agua limpialas en el labavo y las de pintura de aceite con thiner, y vuelvelas a guardar en un frasco, para un uso futuro. Envuelve los residuos de pintura en un periodico y tiralos a la basura.



Removiendo Pintura en Exteriores
Al despintar o lavar exteriores de los edificios con agua de alta presión bloquea los drenajes cercanos y desvia el desagüe. Pregunta las autoridades si puedes descecharla en las alcantarillas.



Reciclando Pintura
Recicla la pintura que sobra en un lugar de colección de materiales peligrosos, guardala para re-toques or regalela a alguien que la use, como a un teatro, a la escuela, una oraganizacion de la ciudad o de la comunidad.

Para reportar actividades ilegales u obtener mas información de la prevención de contaminación llamar al:

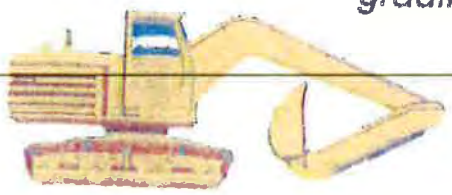
1 (800) CLEANUP

www.1800cleanup.org

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

EXCAVATION & GRADING OPERATIONS

Sediment, cement wash, asphalt, and motor oil from soil excavation and grading operations often make their way into the San Bernardino County storm drain system and DO NOT GET TREATED before reaching the Santa Ana River. These wastes pollute our drinking water, and make our waters unhealthy and unsafe for people and wildlife.



Follow these practices to help prevent stormwater pollution...

Erosion Prevention...

Reduce erosion by avoiding excavation or grading activities during wet weather, and by planting temporary vegetation on slopes where construction is not immediately planned. Plant permanent vegetation as soon as possible, once excavation and grading activities are complete. Diversion dikes can be constructed to channel runoff around the site; channels can be lined with grass or roughened pavement to reduce runoff velocity. For information on erosion control, call 799-7407.



General Business Practices...

Cover exposed piles of soil and other construction materials with plastic sheeting to prevent contact with rain water.

Recycling...



Recycle broken asphalt, concrete, wood, and cleared vegetation whenever possible. Unrecyclable materials must be taken to an appropriate landfill or disposed of as hazardous waste. For recycling or disposal information, call 386-8401.

Equipment Maintenance...



Maintain all vehicles and equipment by inspecting them frequently for leaks. Also, conduct maintenance and refueling at one location -- away from storm drains, and perform major equipment repairs and washings off site. Finally, use gravel approaches where truck traffic is frequent to reduce soil compaction and limit the tracking of sediment into the streets.

Spills...

Avoid accidental spills by using a drip pan and funnel when draining or pouring fluids. Be ready for unexpected spills by preparing and using easy to find spill containment and cleanup kits. Kits should include safety equipment and cleanup materials such as kitty litter, sawdust or commeal. Furthermore, prevent leaks from stored vehicles by draining gas, hydraulic oil, and transmission, brake & radiator fluid. REMEMBER: Never hose down dirty surfaces. To report serious spills, call 1-800-33-TOXIC.



For more information, call your city's stormwater representative

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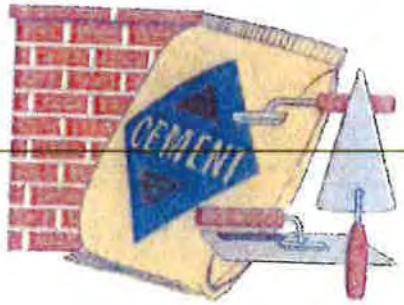
FRESH CONCRETE & MORTAR APPLICATION



Cement, cement wash, gravel, asphalt, solvents, and motor oil from fresh concrete and mortar activities often make their way into the San Bernardino County storm drain system and DO NOT GET TREATED before reaching the Santa Ana River. These wastes pollute our drinking water, and make our waters unhealthy and unsafe for people and wildlife.

Follow these practices to help prevent stormwater pollution...

General Business Practices...

Schedule excavation and grading work during dry weather, and in case it rains, prevent materials from contacting stormwater by storing them under cover. Also, secure open bags of cement to keep wind-blown cement powder away from streets, gutters and storm drains.



During Construction...

Prevent mortar and cement from entering the storm drains by placing erosion controls (i.e., berms or temporary vegetation) down-slope to capture runoff. When breaking up paving, be sure to pick up all pieces and recycle them at a crushing company; small amounts of excess dry concrete, grout and mortar can be disposed of in the trash. Setup small mixers on tarps or heavy drop cloths to allow for easy cleanup of debris. REMEMBER: Never bury waste material -- recycle or dispose of it as hazardous waste. Call 386-8401 for recycling and disposal information.



Handling Materials & Wastes...

Minimize wastes when ordering materials by ordering only the amounts needed to complete the job. Whenever possible, use recycled or recyclable materials. Recycle broken asphalt, concrete, wood, and cleared vegetation. Unrecyclable materials must be taken to an appropriate landfill or disposed of as hazardous waste. For recycling and disposal information, call 386-8401.



Cleaning up...

When cleaning up after driveway or sidewalk construction, wash concrete dust onto designated dirt areas, not down the driveway or into the street or storm drain. Also, wash out concrete mixers and equipment only in specified wash-out areas, where the water flows into containment ponds. Cement washwater can be recycled by pumping it back into cement mixers for reuse. REMEMBER: Never dispose of cement washout into driveways, streets, gutters, storm drains or drainage ditches.



For more information, call your city's stormwater representative

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

GENERAL CONSTRUCTION



Soil, cement wash, asphalt and motor oil from construction sites often make their way into the San Bernardino County storm drain system and DO NOT GET TREATED before reaching the Santa Ana River. These wastes pollute our drinking water, and make our waters unhealthy and unsafe for people and wildlife.

Follow these practices to help prevent stormwater pollution...

General Business Practices...

Cover exposed piles of soil and other construction materials with plastic sheeting to prevent contact with rain water.

Erosion Prevention...

Reduce erosion by avoiding excavation or grading activities during wet weather, and by planting temporary vegetation on slopes where construction is not immediately planned. Plant permanent vegetation as soon as possible, once excavation and grading activities are complete. Diversion dikes can be constructed to channel runoff around the site; channels can be lined with grass or roughened pavement to reduce runoff velocity. For information on erosion control, call 799-7407.

Equipment Maintenance...

Maintain all vehicles and equipment by inspecting them frequently for leaks. Also, conduct maintenance and refueling at one location -- away from storm drains, and perform major equipment repairs and washings off site.

Handling Materials & Waste...

Minimize wastes when ordering materials by ordering only the amounts needed to complete the job. Whenever possible, use recycled or recyclable materials. Recycle broken asphalt, concrete, wood, and cleared vegetation. Unrecyclable materials must be taken to an appropriate landfill or disposed of as hazardous waste. For recycling and disposal information, call 386-8401.

Spills...

Avoid accidental spills by using a drip pan and funnel when draining or pouring fluids. Be ready for unexpected spills by preparing and using easy to find spill containment and cleanup kits. Kits should include safety equipment and cleanup materials such as kitty litter, sawdust or cornmeal. Furthermore, prevent leaks from stored vehicles by draining gas, hydraulic oil, and transmission, brake & radiator fluid. REMEMBER: Never hose down dirty surfaces; instead, sweep regularly. To report serious spills, call 1-800-33-TOXIC.

For more information, call your city's stormwater representative

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HOME & GARDEN



Yard waste and household toxics such as paints, solvents, and pesticides often make their way into the San Bernardino County storm drain system and DO NOT GET TREATED before reaching the Santa Ana River. These wastes pollute our drinking water and make our waters unhealthy and unsafe for people and wildlife.

Follow these practices to help prevent stormwater pollution...

In Your Home...

Household products such as paints, paint thinners, drain openers, motor oil, wood polishes, insecticides & herbicides, oven cleaners, and many other general cleaners frequently get dumped on the ground, or into a gutter, street or storm drain. Instead of polluting our stormwaters, take these items to a household hazardous waste collection facility. Call 1-800-OILY-CAT for a facility in your area.



Fertilizers and Pesticides...

Fertilizers and pesticides are often carried into our storm drains by sprinkler runoff. To minimize stormwater pollution, use organic or non-toxic pesticides and fertilizers as directed, and keep them away from ditches, gutters and storm drains. Store them in a covered area, off the ground, to prevent contact with water. For additional gardening questions, call the San Bernardino Master Gardeners at 387-2182.



Trimmin' the Garden...

Decaying organic materials that enter our storm drains, such as grass, leaves, yard clippings, and pet waste, will use up oxygen in nearby streams, stressing aquatic life. Prevent stormwater pollution by not blowing, sweeping, raking or hosing yard waste into the street, gutter, or storm drain. Alternatively, leave grass clippings on your lawn after mowing, or compost your clippings and yard waste. Pet waste should not be composted, but rather disposed of in the trash to prevent the potential spread of diseases.



Planting In The Yard

Produce less yard waste and save water by planting low maintenance trees and shrubs. Also, conserve water and minimize unwanted runoff by using drip irrigation, soaker hoses, or micro-spray systems to water vegetation.



For more information, call your city's stormwater representative

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

HOME REPAIR & REMODELING

Paints, solvents, adhesives, dusts, sediments, pesticides and household toxics commonly associated with home repair and remodeling activities often make their way into the San Bernardino County storm drain system and DO NOT GET TREATED before reaching the Santa Ana River. These wastes pollute our drinking water, and make our waters unhealthy and unsafe for people and wildlife.



Follow these practices to help prevent stormwater pollution...

Household Hazardous Wastes...

Common household cleaners, paint products, and wallpaper & tile adhesives contain toxic substances. Dispose of these products properly. REMEMBER: Toxic wastes should never enter the storm drain system. For disposal information, call 1-800-OILY-CAT.

Construction...

Keep all construction debris away from the street, gutter and storm drain, and if possible, schedule grading and excavation projects for dry weather. Cover excavated material and stockpiles of asphalt, sand, etc. with plastic tarps, and prevent erosion by planting fast-growing annual and perennial grasses, which will shield and bind the soil.

Landscape & Gardening...

Use fertilizers and pesticides as directed. Keep them away from ditches, gutters and storm drains, and store them in a covered area to prevent contact with rain water. Also, minimize runoff and conserve water by using drip irrigation, soaker hoses, or micro-spray systems. REMEMBER: Do not deposit leaves into the street, gutter, or storm drain.



Painting...

CLEANUP... Avoid cleaning brushes or rinsing paint containers into a street, gutter, or storm drain. For water-based paints, "brush out" as much paint as possible, and rinse in the sink. For oil-based paints, "brush out" as much paint as possible, clean with thinner, and then filter and reuse thinner or solvent.



REMOVAL... Paint stripping residue, chips & dust from marine paints, and paints containing lead or tributyl tin are hazardous wastes. Sweep them up and call 1-800-OILY-CAT for disposal information.

RECYCLING... Recycle or reuse leftover paint by using it for touch-ups, or by giving it to someone who can us it, such as a theatre group, school, city or other community organization. If you're unable to give it away, contact 1-800-OILY-CAT for disposal information.

Concrete & Masonry...

Store bags of cement and plaster away from gutters and storm drains, and under cover, protected from rainfall, runoff and wind. REMEMBER: Never dispose of cement washout or concrete dust onto driveways, streets, gutters or storm drains.

For more information, call your city's stormwater representative

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING



PAINTING

Paints, solvents, adhesives, and toxic chemicals from painting operations often make their way into the San Bernardino County storm drain system and DO NOT GET TREATED before reaching the Santa Ana River. These wastes pollute our drinking water, and make our waters unhealthy and unsafe for people and wildlife.

Follow these practices to help prevent stormwater pollution...

General Business Practices...

Keep all paint products and wastes away from the street, gutter, and storm drains. Reuse paint thinner by setting used thinner aside in a closed, labeled jar to settle out paint particles, and then pouring off the clear liquid for future use. Wrap dried paint residue in newspaper and dispose of it in the trash.

Water-Based Paints...

Purchase water-based paints whenever possible. Look for products labeled "latex" or "clean up with water."

Recycle or Reuse Paints...

Recycle/reuse leftover paint by using it for touch-ups, or by giving it to someone who can use it, such as a theatre group, school, city or other community organization. If you're unable to give it away, contact 386-8401 for information on hazardous waste pick-up.

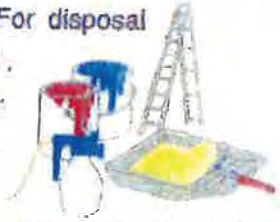
Paint Cleanup...



Avoid cleaning brushes and rinsing paint containers in a street, gutter, or storm drain. For water-based paints, "brush out" as much paint as possible and and rinse in the sink. For oil-based paints, "brush out" as much paint as possible, clean with thinner, and then filter and reuse thinner or solvent.

Paint Removal...

Chemical paint stripping residue, chips & dust from marine paints, and paints containing lead or tributyl tin are hazardous wastes. For disposal information, call 386-8401.



Also, when stripping or cleaning building exteriors with high-pressure water, block storm drains and divert the washwater onto a designated dirt area. Check with your local wastewater treatment authority to find out if you can collect building cleaning water and discharge it to the sewer.

For more information, call your city's stormwater representative

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ROADWORK & PAVING

Asphalt, saw-cut slurry, and excavated materials from Road paving, surfacing and pavement removal operations often make their way into the San Bernardino County storm drain system and DO NOT GET TREATED before reaching the Santa Ana River. These wastes pollute our drinking water, and make our waters unhealthy and unsafe for people and wildlife.



Follow these practices to help prevent stormwater pollution...

During Construction...

Cover catch basins and maintenance holes when applying seal coat, slurry seal, fog seal, etc. Use check dams, ditches or berms around excavations, and avoid over-application of water for dust control. REMEMBER: Never wash excess materials from exposed aggregate or concrete into a street, gutter, or storm drain; collect and recycle them.

Asphalt & Concrete Removal...



Barricade storm drain openings during saw-cutting, and after breaking up paving, be sure to remove all chunks and pieces and recycle them at a crushing company. For recycling information, call 386-8401.

Equipment Maintenance...

Maintain all vehicles and equipment by inspecting them frequently for leaks. Also, conduct maintenance and refueling at one location -- away from storm drains, and perform major equipment repairs and washings off site.

Spills...

Be ready for unexpected spills by preparing and using spill containment and cleanup kits. Kits should include safety equipment and cleanup materials such as kitty litter, sawdust or cornmeal. Prevent drips from paver machines by catching fluids with drip pans or by placing absorbent material (cloth, rags, etc....) underneath the machines when they're not in use. To report serious spills, call 1-800-33-TOXIC.



General Business Practices...

Schedule excavation and grading work during dry weather, and develop and implement erosion and sediment control plans for excavated embankments. In case it rains, cover exposed piles of soil and other construction materials with plastic sheeting to prevent contact with rain water.



For more information, call your city's stormwater representative

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

RURAL HOMES

Pesticides, fertilizers, septic system overflows, soil, and animal manure from rural homes often make their way into the San Bernardino County storm drain system and DO NOT GET TREATED before reaching the Santa Ana River. These wastes pollute our drinking water, and make our waters unhealthy and unsafe for people and wildlife.



Follow these practices to help prevent stormwater pollution...

Protecting Your Well...

Since old, uncapped and abandoned wells can serve as direct conduits to our groundwater, it s important to maintain these areas. Keep all livestock confinement areas away from wells, and keep septic drain fields and chemical storage areas down slope from wells. Install anti-siphoning devices between your well and water pipes to prevent backflow of pollutants and drinking water contamination. REMEMBER: Never dispose of anything in wells.



Fertilizers and Pesticides...

Avoid buying and mixing more pesticide than you need, and never apply more than the recommended amount. Consider spot treatments, rather than spraying pesticides everywhere. REMEMBER: Don t dispose of excess chemicals by dumping them on the ground, pouring them down a well, or draining them into ditches, sewers, drains or septic systems. Call 1-800-OILY-CAT for disposal information. Finally, store chemicals in a covered area, with an impermeable lined floor to prevent contact with rainwater.



That Rural Landscape...

Reduce soil erosion by covering parking areas with gravel, and by covering other exposed soils with vegetation. Gravel and vegetation will not only improve the appearance of your home, but will also assist in filtering out pollutants from water. For information on reducing erosion, call 799-7407.

Autos & Other Equipment...

Repair vehicles and other equipment away from wells, ditches and drains. Avoid accidental spills by using a drip pan and funnel when draining or pouring fluids. Prevent leaks from stored vehicles by draining gas, hydraulic oil, and transmission, brake & radiator fluid. For recycling information, call 1-800-OILY-CAT



Septic Systems

Septic systems should never be piped into a road ditch, storm sewer, stream or farm drain tile system. Also, avoid washing or flushing grease, alcohol, or strong chemicals into your septic system; these substances kill the bacteria needed to break down wastes.

For more information, call your city s stormwater representative

Attachment: Appendix G - Hydrology Study to EIR [Revision 3] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE PLANNING

Michael Baker INTERNATIONAL

Innovation Done Right...We Make a Difference

August 21, 2015 JN 148205

SARES-REGIS GROUP
Contact: Monica Estevez
18802 Bardeen Avenue
Irvine, California 92612

SUBJECT: Biological Property Evaluation for Sensitive Biological Resources for a Proposed Project Located at 17845 Indian Street Located in the City of Moreno Valley, Riverside County, California.

Introduction

Michael Baker International (Michael Baker) conducted a habitat assessment for sensitive biological resources for a proposed project located at 17845 Indian Street City of Moreno Valley, Riverside County, California (project site or site). Michael Baker biologists Travis J. McGill and Tom Millington inventoried and evaluated the condition of the habitat within the proposed project footprint on August 20, 2015.

The habitat assessment was conducted to characterize existing site conditions and to assess the probability of occurrence of sensitive plant and wildlife species that could pose a constraint to development. Special attention was given to the suitability of the habitat on-site to support burrowing owl (*Athene cunicularia*) and other sensitive species identified by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), and other electronic databases as sensitive and as potentially occurring in the vicinity of the project site.

Project Location

The proposed project site is generally located north of Interstate 15, south of State Route 60, east of Interstate 215, and west of State Route 79 in the City of Moreno Valley, Riverside County, California (refer to Exhibit 1, *Regional and Local Vicinity*). The proposed project site is depicted on the Perris quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series in Section 31, Township 3 south, Range 3 west. Specifically, the project site is located west of Indian Street and south of Nandina Avenue (refer to Exhibit 2, *Project Site*). The project site is composed of four Assessor Parcel Numbers (APN); 316-210-019, 316-210-020, 316-210-057, and 316-210-077.

Attachment: Appendix H - Biological Resources to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001) OF THE

Methodology

A literature review and records search was conducted to determine which sensitive biological resources have the potential to occur on or within the general vicinity of the project site. In addition to the literature review, a general habitat assessment or biological property evaluation of the project site was conducted. The field survey provided information on the existing conditions on the site and its potential to support sensitive biological resources.

Literature Review

Prior to conducting a field visit, a literature review and records search was conducted for sensitive biological resources potentially occurring on or within the general vicinity of the project site. Previously recorded occurrences of special-status plant and wildlife species and their proximity, specifically within 2 miles, to the project site were determined through a query of the CDFWs CNDDB Rarefind 5 software, the California Native Plant Society's (CNPS) Electronic Inventory of Rare, Threatened, and Endangered Plants of California, Calflora Database, compendia of special-status species published by the CDFW, and United States Fish and Wildlife Service (USFWS) species listings.

The Riverside County Integrated Project (RCIP) Conservation Summary Report Generator was queried to determine if the MSHCP identifies any potential survey requirements for the project site (refer to Attachment B). Additionally, the proposed project site was reviewed against the MSHCP to determine if the site is located within any MSHCP areas including Criteria Cells (core habitat and wildlife movement corridors) and areas proposed for conservation.

Field Investigation

The project site was surveyed by Michael Baker biologist Travis J. McGill and Thomas C. Millington between 0630 and 0800 hours on August 20, 2015. Temperatures during the site visit were in the mid-60s (degrees Fahrenheit) with low cloud cover that began to burn off at the end of the survey.

Plant communities identified on aerial photographs during the literature review were verified by walking meandering transects through the project site. The plant communities were evaluated for their potential to support sensitive plant and wildlife species. All plant and wildlife species observed, as well as dominant plant species, were recorded in a standardized field notebook. In addition, site characteristics such as soil condition, topography, presence of indicator species, slope, conditions of the plant communities, hydrology, jurisdictional features, and evidence of human use of the site were noted.

The plant communities were evaluated for their potential to provide suitable habitat for sensitive plant and wildlife species as well as the identification of corridors and linkages that may support the movement of wildlife through the area. Special attention was paid to any sensitive habitats and/or undeveloped, natural areas having a higher potential to support sensitive plant and wildlife species.

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Existing Site Condition

The project site is relatively flat with no areas of significant topographic relief. The on-site elevation ranges from approximately 1,464 to 1,468 feet above mean sea level. According to the USDA Soil Survey, on-site soils consist of Romona sandy loam, 0 to 2 percent slopes, Greenfield sandy loam, 0 to 2 percent slopes, and Exeter sandy loam, deep, 0 to 2 percent slopes.

The project site occurs in an area that has been converted from natural habitats into industrial land uses. The project site is bordered by Indian Street to the east, vacant lots to the north and west, and industrial land uses to the south. On-site and surrounding land uses have heavily disturbed, if not completely eliminated, most of the naturally occurring habitats around the project footprint, reducing the suitability of the habitat to support sensitive plant and wildlife species. The project site has been subject to routine maintenance activities.

Vegetation

As a result of routine maintenance and weed abatement activities, undisturbed native plant communities are no longer present within the boundaries of the project site. The site consists of a heavily disturbed, undeveloped field that is dominated by tumbleweed (*Salsola tragus*). A small number of ornamental pines (*Pinus* sp.) and Chinaberry (*Melia azedarach*) trees are found in the southwestern portion of the project site. The site can be characterized as supporting a disturbed field.

Plant species observed within the project footprint include heliotrope (*Heliotropium* sp.), cottonwood (*Populus fremontii*), silverleaf nightshade (*Solanum elaeagnifolium*), common sunflower (*Helianthus annuus*), puncture vine (*Tribulus terrestris*), short podded mustard (*Hirschfeldia incana*), stinknet (*Oncosiphon piluliferum*), red brome (*Bromus madritensis* ssp. *rubens*), eucalyptus (*Eucalyptus* sp.), horseweed (*Erigeron bonariensis*), london rocket (*Sisymbrium irio*), curly dock (*Rumex crispus*), cheese weed (*Malva parviflora*), telegraph weed (*Heterotheca grandiflora*), and pigweed (*Chenopodium californicum*).

Wildlife

The project site provides limited habitat for wildlife species adapted to a high degree of human presence and development. The majority of the wildlife observed during the habitat assessment consisted of avian species. Six (6) avian species were detected which included house finch (*Haemorhous mexicanus*), black phoebe (*Sayornis nigricans*), mourning dove (*Zenaida macroura*), western kingbird (*Tyrannus verticalis*), rock pigeon (*Columba livia*), and Anna's hummingbird (*Calypte anna*).

No mammals were detected during the habitat assessment. However, mammalian species expected to occur on the project site are those adapted to continual human presence and development (e.g. California ground squirrel (*Otospermophilus beecheyi*), and deer mouse (*Peromyscus* sp.)).

The project site provides limited habitat for reptilian species acclimated to human presence and

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disturbance. No reptiles were detected during the habitat assessment, however, reptilian species expected to occur include western fence lizard (*Sceloporus occidentalis*), alligator lizard (*Elgaria coerulea*), and side-blotched lizard (*Uta stansburiana*).

No fish or amphibians were observed on the project site during the habitat assessment. No hydrogeomorphic features (e.g. creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish or amphibian populations were observed on the project site. Therefore, no fish or amphibian species are expected to occur on-site and are presumed absent.

Nesting Birds

No nesting birds or breeding behaviors were observed during the August 20, 2015 field survey. On-site vegetation provides limited nesting opportunities for avian species. However, the project site has the potential to provide suitable nesting opportunities for ground-nesting avian species (e.g. killdeer (*Charadrius vociferous*)). Additionally the ornamental pines and Chinaberry trees located on the southwestern portion of the project site have the potential to provide suitable nesting opportunities for avian species. However, the disturbed nature of the project site and its routine maintenance activities greatly reduces the potential for birds to nest on-site.

Migratory Corridors and Linkages

Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The project site is surrounded by existing development which has removed natural plant communities from the surrounding area. The proposed development will be confined to existing areas that have been heavily disturbed (approximately 19.7-acres). There are no riparian corridors, creeks, or useful patches of stepping stone habitat (natural areas) within or connecting to the project site. The proposed project will not disrupt or have any adverse effects on any migratory corridors or linkages that may occur in the general vicinity of the project site. Additionally, the project site is not located within any MSHCP identified corridor or linkage.

Jurisdictional Areas

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The U.S. Army Corps of Engineers (Corps) Regulatory Branch regulates discharge of dredge or fill materials into “waters of the United States” pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW

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regulates alterations to streambed and bank under Fish and Wildlife Code Sections 1600 et seq., and the Regional Water Quality Control Board (Regional Board) regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

No jurisdictional drainage features or isolated wetland features that would qualify as "waters of the United States" or "waters of the state" were observed within the proposed project site. This project, therefore, will not require regulatory permits from the aforementioned regulatory agencies.

Sensitive Biological Resources

The CNDDB and CNPS were queried for reported locations of listed and sensitive plant and wildlife species as well as sensitive natural plant communities in the Perris USGS 7.5-minute quadrangle. The literature search identified fifteen (15) sensitive plant species and forty-two (42) sensitive wildlife species as having the potential to occur within the Perris USGS 7.5-minute quadrangle. No CDFW sensitive habitats were identified as occurring within the Perris quadrangle. These sensitive plant and wildlife species were evaluated for their potential to occur on the project site based on habitat requirements, availability/quality of suitable habitat, and known distributions. Species determined to have the potential to occur on-site are presented in Attachment D, *Potentially Occurring Sensitive Biological Resources*. Attachment D provides details of the analysis and field surveys regarding the potential occurrence of listed and sensitive plant and wildlife species within the project site.

Sensitive Plants

According to the CNDDB and CNPS, fifteen (15) special-status plant species have been recorded in the Perris quadrangles (refer to Attachment D). The RCIP Conservation Summary Report did not identify any potential survey requirements for sensitive plant species for the project site. It should be noted that the project site is heavily disturbed from routine weed abatement activities. Based on habitat requirements for specific species and the availability and quality of habitats needed by each sensitive plant species, it was determined that the project site does not provide suitable habitat that would support any of the CNDDB, CNPS, or MSHCP listed plant species known to occur in the general vicinity of the project site.

Sensitive Wildlife

According to the CNDDB, forty-two (42) special-status wildlife species have been reported in the Perris quadrangles (refer to Attachment D). The RCIP Conservation Summary Report only identified a burrowing owl survey requirements for the project site. Based on the results of the habitat assessment, it was determined that the project site has a low potential to support Cooper's hawk (*Accipiter cooperii*) foraging and a low potential to support burrowing owl. All other special-status plant and wildlife species are presumed absent.

Critical Habitat

Critical habitat refers to specific areas within the geographical range of species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery

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of a species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. The project site is not located within federally designated Critical Habitat. The closest designated Critical Habitat is located approximately 10 miles northwest of the site for coastal California gnatcatcher (*Polioptila californica californica*).

Western Riverside County MSHCP

MSHCP Areas

The project site is located within the Reche Canyon/Badlands Area Plan in an independent cell group of the MSHCP. However, it is not located in a Criteria Cell or conservation area of the MSHCP.

MSHCP Survey Requirements

The RCIP Conservation Summary Report Generator summary report identified only identified a burrowing owl survey requirements for the project site.

Burrowing Owl

The burrowing owl is currently listed as a California Species of Special Concern. It is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with well-drained, level to gently-sloping areas characterized by sparse vegetation and bare ground (Haug and Didiuk 1993; Dechant et al. 1999). Burrowing owls are dependent upon the presence of burrowing mammals (such as ground squirrels) whose burrows are used for roosting and nesting (Haug and Didiuk 1993). The presence or absence of colonial mammal burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. Burrowing mammals may burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. They also require open vegetation allowing line-of-sight observation of the surrounding habitat to forage as well as watch for predators.

Despite a systematic search of potentially suitable burrows and open habitat throughout the project site, no burrowing owl or sign (pellets, feathers, castings, or white wash) was observed during the habitat assessment. The heavy disturbances associated with the disking activities have likely precluded burrowing owls from inhabiting the project site. Due to the lack of burrowing owl sign and suitable burrows, burrowing owl are presumed not to occupy the project site and have a low potential to occur on site. A burrowing owl pre-construction clearance survey is recommended to be conducted within thirty (30) days prior to ground disturbance, in accordance with the MSHCP, to ensure burrowing owl remain absent from the project site.

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Jurisdictional Drainages, Riparian/Riverine Habitat, and Vernal Pools

Under MSHCP Section 6.1.2, riparian/riverine areas are defined as areas dominated by trees, shrubs, persistent emergent plants, or emergent mosses and lichens which occur close to or are dependent upon nearby freshwater, or areas with freshwater flowing during all or a portion of the year. Conservation of these areas is intended to protect habitat that is essential to a number of listed, water-dependent amphibians, birds, fish, invertebrates, and plants. If all impacts to riparian/riverine habitat cannot be avoided, a mitigation strategy called a Determination of Biologically Equivalent or Superior Preservation (DBESP) must be developed that addresses the replacement of lost functions of habitats in regards to the listed species. This assessment is independent from considerations given to "waters of the U.S." and "waters of the State" under the CWA and the California Fish and Game Code.

No jurisdictional drainage features or isolated wetland features were observed within the proposed project footprint that would be considered jurisdictional by the Corps, Regional Board, or CDFW. Additionally, no area that would be considered riparian/riverine habitat under the MSHCP were observed on-site during the habitat assessment.

The MSHCP lists two general classes of soils known to be associated with listed and sensitive plant species; clay soils and Traver-Domino Willow association soils. The specific clay soils known to be associated with listed and sensitive species within the MSHCP plan area include Bosanko, Auld, Altamont, and Porterville series soils, whereas, Traver-Domino Willows association includes saline-alkali soils largely located along floodplain areas of the San Jacinto River and Salt Creek. Without the appropriate soils to create the impermeable restrictive layer, none of the sensitive plant or wildlife species associated with vernal pools can occur on the project site. None of these soils occur on the project site, therefore, sensitive plant and wildlife species associated with vernal pools, including fairy shrimp, are presumed absent from the project site. Additionally, due to the topography, soils, and disturbance within the project site, vernal pool and fairy shrimp habitat is not expected to occur.

Urban/Wildlands Interface Guidelines

According to the MSHCP, the Urban/Wildlands Interface Guidelines are intended to address indirect effects associated with new development in proximity to MSHCP Conservation Areas (MSHCP, p 6-42). The proposed project is not located in or immediately adjacent to any Criteria Cells or MSHCP Conservation Areas; therefore, indirect project-related impacts to drainage, toxics, lighting, noise, invasive plant species, barriers, and grading/land development will not occur.

Conclusion

No sensitive plant or wildlife species were observed on the project site during the habitat assessment. It was found that naturally occurring native plant communities are not present on-site and the property has limited potential or support sensitive plant and wildlife species known to occur in the general area.

The heavy degree of disturbance from routine maintenance activities and lack of suitable burrows on-site has likely precluded burrowing owls from inhabiting the project site. Therefore, burrowing owls

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are presumed not to occupy the project site.

Surrounding industrial development has isolated the project site from connecting to undisturbed, natural habitats still available in the area. The isolation and disturbance level of the project site limits the site's viability to provide suitable habitat for sensitive biological resources (i.e. sensitive plant and wildlife species, drainage features). As a result, no significant adverse impacts to biological resources are anticipated, as a result of implementation of the proposed project.

No nesting birds were observed and, given the heavy level of disturbance, none are expected to occur. However, construction activities should be conducted outside of the avian breeding season (generally February 1 to August 31) to avoid impacts to nesting birds. If construction will occur during the avian breeding season, a pre-construction nesting bird clearance survey shall be conducted seven (7) days prior to ground disturbing activities to ensure no birds are actively nesting on or within 500 feet of the project site.

Please do not hesitate to contact Thomas J. McGill at (909) 974-4907 or tmcgill@mbakerintl.com or Travis J. McGill at (909) 974-4958 or travismcgill@mbakerintl.com should you have any questions or require further information.

Sincerely,





Thomas J. McGill, Ph.D.
Vice President
Natural Resources

Travis J. McGill
Biologist
Natural Resources

Attachments:

A. *Project Exhibits*
B. *Riverside County Integrated Project Conservation Summary Report*
C. *Site Photographs*
D. *Potentially Occurring Sensitive Biological Resources*

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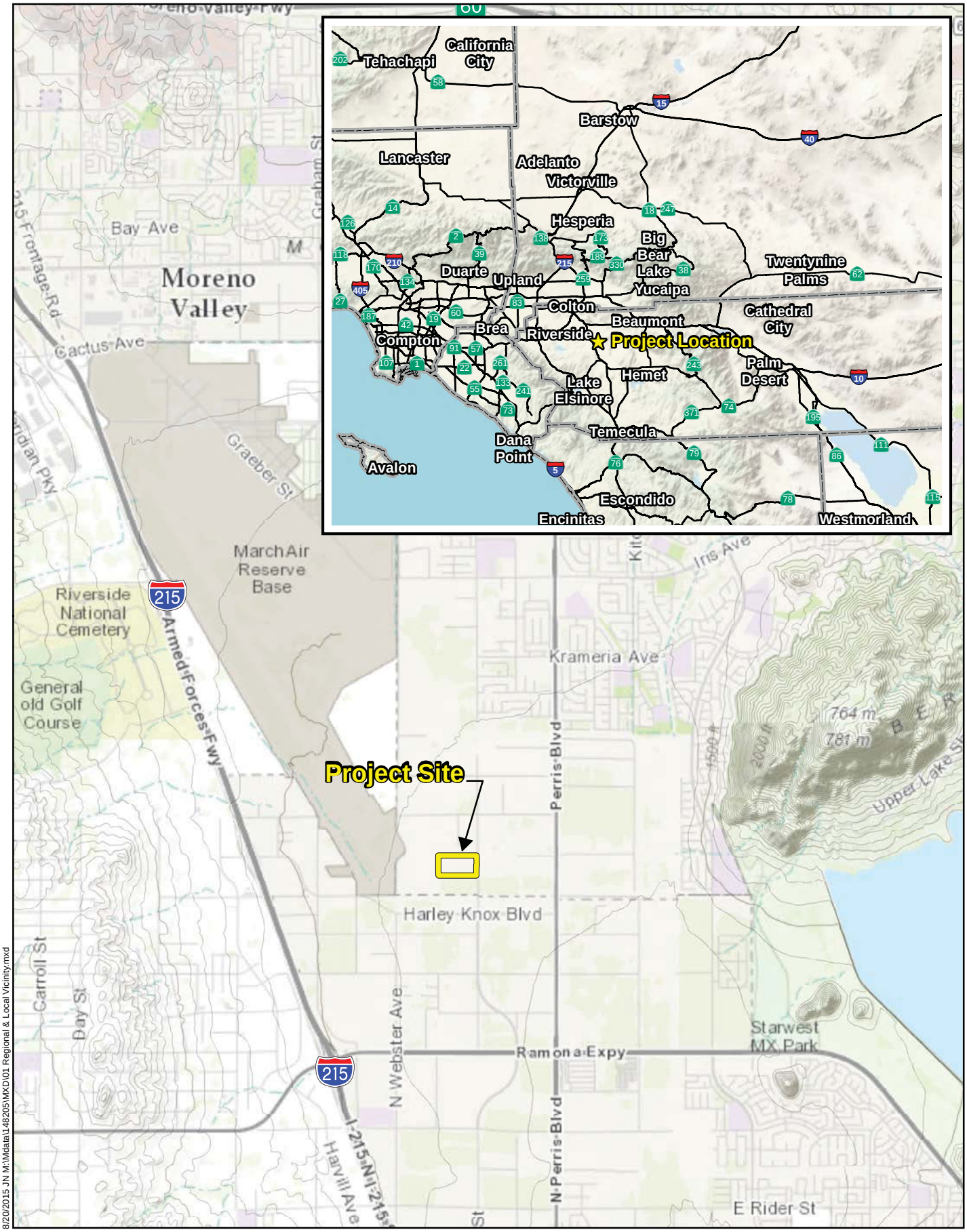
Attachment A

Project Exhibits



8/20/2015 JN M:\Mdata\148205\MXD\01 Regional & Local Vicinity.mxd

PROJECT LOCATED AT 17845 INDIAN STREET
BIOLOGICAL PROPERTY EVALUATION

Regional and Local Vicinity

Michael Baker INTERNATIONAL

0 0.5 1 2 Miles

Source: ESRI World Topographic Map, ESRI Terrain Map, ESRI Physical Map

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PROJECT LOCATED AT 17845 INDIAN STREET
BIOLOGICAL PROPERTY EVALUATION

Project Site

Michael Baker INTERNATIONAL

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Attachment B

Riverside County Integrated Project Conservation Summary Report

Riverside County Transporation and Land Management Agency - TLMA

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

APN	Cell	Cell Group	Acres	Area Plan	Sub Unit
316210019	Not A Part	Independent	4.93	Reche Canyon / Badlands	Not a Part
316210020	Not A Part	Independent	4.98	Reche Canyon / Badlands	Not a Part
316210057	Not A Part	Independent	4.93	Reche Canyon / Badlands	Not a Part
316210077	Not A Part	Independent	4.86	Reche Canyon / Badlands	Not a Part

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HABITAT ASSESSMENTS

Habitat assessment shall be required and should address at a minimum potential habitat for the following species:

APN	Amphibia Species	Burrowing Owl	Criteria Area Species	Mammalian Species	Narrow Endemic Plant Species	Special Linkage Area
316210019	NO	YES	NO	NO	NO	NO
316210020	NO	YES	NO	NO	NO	NO
316210057	NO	YES	NO	NO	NO	NO
316210077	NO	YES	NO	NO	NO	NO

Burrowing Owl

Burrowing owl.

If potential habitat for these species is determined to be located on the property, focused surveys may be required during the appropriate season.

Background

The final MSHCP was approved by the County Board of Supervisors on June 17, 2003. The federal and state permits were issued on June 22, 2004 and implementation of the MSHCP began on June 23, 2004.

For more information concerning the MSHCP, contact your local city or the County of Riverside for the unincorporated areas. Additionally, the Western Riverside County Regional Conservation Authority (RCA), which oversees all the cities and County implementation of the MSHCP, can be reached at:

Western Riverside County Regional Conservation Authority
3403 10th Street, Suite 320
Riverside, CA 92501

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Phone: 951-955-9700
Fax: 951-955-8873

www.wrc-rca.org

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Attachment C

Site Photographs



Photograph 1: From the southwest corner of the project site, looking west.



Photograph 2: Looking north at the eastern boundary of the project site.

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Photograph 3: From the northern boundary of the project site looking south.



Photograph 4: Looking southwest at the middle portion of the project site. The ornamental pines and Chinaberry trees are in the background.

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Photograph 5: From the western border of the project site looking east.



Photograph 6: Looking east at the ornamental pines located in the southwestern portion of the project site.

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Photograph 7: From the southern border of the project site looking northeast.



Photograph 8: From the southeast corner of the project site looking west.

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Attachment D

Potentially Occurring Sensitive Biological Resources

Table D-1: Potentially Occurring Sensitive Biological Resources

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
WILDLIFE SPECIES				
Accipiter cooperii Cooper's hawk	Fed: None CA: WL	Generally found in forested areas up to 3,000 feet in elevation, especially near edges and rivers. Prefers hardwood stands and mature forests, but can be found in urban and suburban areas where there are tall trees for nesting. Common in open areas during nesting season.	No	**Low.** The project site provides minimal foraging habitat. No suitable nesting habitat is found on-site.
Agelaius tricolor tricolored blackbird	Fed: None CA: **END**/ CSC	Range is limited to the coastal areas of the Pacific coast of North America, from Northern California to upper Baja California. Can be found in a wide variety of habitat including annual grasslands, wet and dry vernal pools and other seasonal wetlands, agricultural fields, cattle feedlots, and dairies. Occasionally forage in riparian scrub habitats along marsh borders. Basic habitat requirements for breeding include open accessible water, protected nesting substrate (freshwater marsh dominated by cattails, willows, and bulrushes [*Schoenoplectus* sp.]), and either flooded or thorny or spiny vegetation and suitable foraging space providing adequate insect prey.	No	**Presumed absent.** No suitable habitat is present on site.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	Fed: None CA: WL	Typically found between 3,000 and 6,000 feet in elevation. Breed in sparsely vegetated shrublands on hillsides and canyons. Prefers coastal sage scrub dominated by California sagebrush (*Artemisia californica*), but can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and along the edges of tall chaparral habitats.	No	**Presumed absent.** No suitable habitat is present on site.
Aquila chrysaetos golden eagle	Fed: None CA: FP;WL	Occupies nearly all terrestrial habitats of the western states except densely forested areas. Favors secluded cliffs with overhanging ledges and large trees for nesting and cover. Hilly or mountainous country where takeoff and soaring are supported by updrafts is generally preferred to flat habitats. Deeply cut canyons rising to open mountain slopes and crags are ideal habitat.	No	**Presumed absent.** No suitable habitat is present on site.
Artemisiospiza belli belli Bell's sage sparrow	Fed: None CA: WL	Occurs in chaparral dominated by fairly dense stands of chamise. Also found in coastal sage scrub in south of range.	No	**Presumed absent.** No suitable habitat is present on site.
Aspidoscelis hyperythra orange-throated whiptail	Fed: None CA: CSC	Inhabits low-elevations coastal scrub, chamise-redshank chaparral, mixed chaparral, and valley-foothill hardwood habitats. Semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, and coastal chaparral.	No	**Presumed absent.** No suitable habitat is present on site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Aspidoscelis tigris stejnegeri coastal whiptail	Fed: None CA: None	Found in a variety of ecosystems, primarily hot and dry open areas with sparse foliage - chaparral, woodland, and riparian areas.	No	**Presumed absent.** No suitable habitat is present on site.
Athene cunicularia burrowing owl	Fed: None CA: CSC	Primarily a grassland species, but it persists and even thrives in some landscapes highly altered by human activity. Occurs in open, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. The overriding characteristics of suitable habitat appear to be burrows for roosting and nesting and relatively short vegetation with only sparse shrubs and taller vegetation.	No	**Low.** The site supports marginal habitat. Routine disking activities have precluded a population from habituating the site.
Buteo regalis ferruginous hawk	Fed: None CA: WL	Frequents open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and fringes of pinyon-juniper habitats. Nests in foothills or prairies; on low cliffs, buttes, cut banks, shrubs, trees, or in other elevated structures, natural or human-made. Requires large, open tracts of grasslands, sparse shrub, or desert habitats.	No	**Presumed absent.** No suitable habitat is present on site.
Chaetodipus fallax fallax northwestern San Diego pocket mouse	Fed: None CA: CSC	Occurs in desert and coastal habitats in southern California, Mexico, and northern Baja California, from sea level to at least 1,400 meters above msl. Found in a variety of temperate habitats ranging from chaparral and grasslands to scrub forests and deserts. Requires low growing vegetation or rocky outcroppings, as well as sandy soils for burrowing.	No	**Presumed absent.** No suitable habitat is present on site.
Charadrius montanus mountain plover	Fed: None CA: CSC	Population declining and very local; occasionally fairly common. Winter resident from September through March. Found on short grasslands and plowed fields of the Central Valley from Sutter and Yuba cos. southward. Also fund in foothill valleys west of San Joaquin Valley, Imperial Valley, plowed fields of Los Angeles and western San Bernardino counties, and along the central Colorado river valley.	No	**Presumed absent.** No suitable habitat is present on site.
Charina trivirgata rosy boa	Fed: None CA: None	Ranges from southern California and western Arizona in the United states, southward to Baja California and western Sonora in Mexico. Species often inhabits rocky areas in coastal sage scrub, chaparral, and desert environments.	No	**Presumed absent**. No suitable habitat is present.
Chondestes grammacus lark sparrow	Fed: None CA: None	A common to fairly common resident in lowlands and foothills throughout much of California. Breeds only locally in southern deserts, but is somewhat more widespread in winter. Frequents sparse valley foothill hardwood, valley foothill hardwood-conifer, open mixed chaparral and similar brushy habitats, and grasslands with scattered trees or shrubs.	No	**Presumed absent.** No suitable habitat is present on site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Circus cyaneus northern harrier	Fed: None CA: CSC	Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Mostly found in flat, or hummocky, open areas of tall, dense grasses moist or dry shrubs, and edges for nesting, cover, and feeding.	No	**Presumed absent.** No suitable habitat is present on site.
Coleonyx variegatus abbotti San Diego banded gecko	Fed: None CA: None	Prefers rocky areas in coastal sage and chaparral within granite or rocky outcrops. Occurs in coastal and cismontane southern California from interior Ventura Co. south.	No	**Presumed absent.** No suitable habitat is present on site.
Crotalus ruber red-diamond rattlesnake	Fed: None CA: CSC	It can be found from the desert, through dense chaparral in the foothills (it avoids the mountains above around 4,000 feet), to warm inland mesas and valleys, all the way to the cool ocean shore. It is most commonly associated with heavy brush with large rocks or boulders. Dense chaparral in the foothills, cactus or boulder associated coastal sage scrub, oak and pine woodlands, and desert slope scrub associations are known to carry populations of the northern red-diamond rattlesnake; however, chamise and red shank associations may offer better structural habitat for refuges and food resources for this species than other habitats.	No	**Presumed absent.** No suitable habitat is present on site.
Dipodomys stephensi Stephens' kangaroo rat	Fed: **END** CA: **THR**	Occur in arid and semi-arid habitats with some grass or brush. Prefer open habitats with less than 50% protective cover. Require soft, well-drained substrate for building burrows and are typically found in areas with sandy soil.	No	**Presumed absent.** No suitable habitat is present on site.
Elanus leucurus white-tailed kite	Fed: None CA: FP	Occurs in low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Uses trees with dense canopies for cover. Important prey item is the California vole.	No	**Presumed absent.** No suitable habitat is present on site.
Empidonax traillii extimus southwestern willow flycatcher	Fed: **END** CA: **END**	Occurs in riparian woodlands in southern California. Typically requires large areas of willow thickets in broad valleys, canyon bottoms, or around ponds and lakes. These areas typically have standing or running water, or are at least moist.	No	**Presumed absent.** No suitable habitat is present on site.
Emys marmorata western pond turtle	Fed: None CA: CSC	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater. Found at elevations from sea level to over 5,900 feet (1,800 m).	No	**Presumed absent.** No suitable habitat is present on site.
Eremophila alpestris actia California horned lark	Fed: None CA: WL	Generally found in shortgrass prairies, grasslands, disturbed fields, or similar habitat types. Flocks in groups.	No	**Presumed absent.** No suitable habitat is present on site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Eumops perotis californicus western mastiff bat	Fed: None CA: CSC	Primarily a cliff-dwelling species, roost generally under exfoliating rock slabs. Roosts are generally high above the ground, usually allowing a clear vertical drop of at least three meters below the entrance for flight. In California, it is most frequently encountered in broad open areas. Its foraging habitat includes dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas.	No	**Presumed absent.** No suitable habitat is present on site.
Falco columbarius merlin	Fed: None CA: WL	Nest in forested openings, edges, and along rivers across northern North America. Found in open forests, grasslands, and especially coastal areas with flocks of small songbirds or shorebirds.	No	**Presumed absent.** No suitable habitat is present on site.
Icteria virens yellow-breasted chat	Fed: None CA: CSC	Primarily found in tall, dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. Breeding habitat must be dense to provide shade and concealment. It winters south the Central America.	No	**Presumed absent.** No suitable habitat is present on site.
Lanius ludovicianus loggerhead shrike	Fed: None CA: CSC	Often found in broken woodlands, shrublands, and other habitats. Prefers open country with scattered perches for hunting and fairly dense brush for nesting.	No	**Presumed absent.** No suitable habitat is present on site.
Lasiurus xanthinus western yellow bat	Fed: None CA: CSC	Roosts in palm trees in foothill riparian, desert wash, and palm oasis habitats with access to water for foraging.	No	**Presumed absent.** No suitable habitat is present on site.
Lepus californicus bennettii San Diego black-tailed jackrabbit	Fed: None CA: CSC	Occurs in diverse habitats, but primarily is found in arid regions supporting shortgrass habitats. Openness of open scrub habitat is preferred over dense chaparral.	No	**Presumed absent.** No suitable habitat is present on site.
Myotis yumanensis Yuma myotis	Fed: None CA: None	Common and widespread in California. Found in a wide variety of habitats ranging from sea level to 11,000 feet, but it is uncommon to rare above 8,000 feet. Optimal habitats are open forests and woodlands with sources of water over which to feed.	No	**Presumed absent.** No suitable habitat is present on site.
Neotoma lepida intermedia San Diego desert woodrat	Fed: None CA: CSC	Occurs in coastal scrub communities between San Luis Obispo and San Diego Counties. Prefers moderate to dense canopies, and especially rocky outcrops.	No	**Presumed absent.** No suitable habitat is present on site.
Numenius americanus long-billed curlew	Fed: None CA: WL	Feed in open prairies, usually in grassy hallows, or edges of prairie sloughs and ponds. Breed in prairies and grassy, moist meadows, generally near water.	No	**Presumed absent.** No suitable habitat is present on site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Nycticorax nyctucorax black-crowned night heron	Fed: None CA: None	Fairly common, yearlong resident in lowlands and foothills through most of California, including the Salton Sea and Colorado River areas, and very common locally in large nesting colonies. Feeds along the margins of lacustrine, large riverine, and fresh and saline emergent habitats and rarely, on kelp beds in marine subtidal habitats. Nests and roosts in dense-foliaged trees and dense emergent wetlands.	No	**Presumed absent.** No suitable habitat is present on site.
Nyctinomops femorosaccus pocketed free-tailed bat	Fed: None CA: CSC	Often found in pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis.	No	**Presumed absent.** No suitable habitat is present on site.
Onychomys torridus ramona southern grasshopper mouse	Fed: None CA: CSC	Ranges southward from Los Angeles County to the Mexican border, generally west of the desert. Inhabits mesas and valleys along the Pacific slope of the Peninsular and Transverse Ranges in southwestern California and extreme northwestern Baja California, Mexico.	No	**Presumed absent.** No suitable habitat is present on site.
Perognathus longimembris brevinasus Los Angeles pocket mouse	Fed: None CA: CSC	Occurs in lower elevation grasslands and coastal sage scrub communities in and around the Los Angeles Basin. Prefers open ground with fine sandy soils. May not dig extensive burrows, but instead will seek refuge under weeds and dead leaves instead.	No	**Presumed absent.** No suitable habitat is present on site.
Phrynosoma blainvillii coast horned lizard	Fed: None CA: CSC	Occurs in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. In inland areas, this species is restricted to areas with pockets of open microhabitat, created by disturbance (i.e. fire, floods, roads, grazing, fire breaks). The key elements of such habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low, but relatively dense shrubs for refuge.	No	**Presumed absent.** No suitable habitat is present on site.
Plegadis chihi white-faced ibis	Fed: None CA: WL	Prefers to feed in fresh emergent wetland, shallow lacustrine waters, muddy ground of wet meadows, and irrigated or flooded partures and croplands. Nests in dense, fresh emergent wetland.	No	**Presumed absent.** No suitable habitat is present on site.
Polioptila californica californica coastal California gnatcatcher	Fed: **THR** CA: CSC	Obligate resident of sage scrub habitats that are dominated by California sagebrush. This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. It prefers habitat with more low-growing vegetation.	No	**Presumed absent.** No suitable habitat is present on site.
Setophaga petechia yellow warbler	Fed: None CA: CSC	Nests over all of California except the Central Valley, the Mojave Desert region, and high altitudes and the eastern side of the Sierra Nevada. Winters along the Colorado River and in parts of Imperial and Riverside Counties. Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders or in mature chaparral. May also use oaks, conifers, and urban areas near stream courses.	No	**Presumed absent.** No suitable habitat is present on site.

Scientific Name Common Name	**Status**	**Habitat**	**Observed Onsite**	**Potential to Occur**
Spea hammondii western spadefoot	Fed: None CA: CSC	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washed, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rainpools which do not contain bullfrogs, fish, or crayfish are necessary for breeding.	No	**Presumed absent.** No suitable habitat is present on site.
Streptocephalus woottoni Riverside fairy shrimp	Fed: **END** CA: None	Restricted to deep vernal pools and pools with chemistry and temperature conditions specific to nonmarine and nonriverine waters. Habitat lies within annual grasslands.	No	**Presumed absent.** No suitable habitat is present on site.
Taxidea taxus American badger	Fed: None CA: CSC	Primarily occupy grasslands, parklands, farms, tallgrass and shortgrass prairies, meadows, shrub-steppe communities and other treeless areas with sandy loam soils where it can dig more easily for its prey. Occasionally found in open chaparral (with less than 50% plant cover) and riparian zones.	No	**Presumed absent.** No suitable habitat is present on site.
Vireo bellii pusillus least Bell's vireo	Fed: **END** CA: **END**	Primarily occupy Riverine riparian habitat that typically feature dense cover within 1 -2 meters of the ground and a dense, stratified canopy. Typically it is associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodlands, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities. It uses habitat which is limited to the immediate vicinity of water courses, 2,000 feet elevation in the interior.	No	**Presumed absent**. No suitable habitat is present. The site does not contain the large sections of riparian forest that this species prefers.
PLANT SPECIES				
Abronia villosa* var. *aurita chaparral sand-verbena	Fed: None CA: None CNPS: 1B.1	Found on the coastal side of the southern California mountains in chaparral and coastal sage scrub plant communities in areas of full sun and sandy soils. Found at elevations ranging from 262 to 5,249 feet. Blooming period is from January to September.	No	**Presumed absent.** No suitable habitat is present on site.
Atriplex coronata* var. *notatior San Jacinto Valley crownscale	Fed: **END** CA: None CNPS: 1B.1	Prefers playas, vernal pools, valley and foothill grassland (mesic) habitats. Found at elevations ranging from 456 to 1,640 feet. Blooming period is from April to August.	No	**Presumed absent.** No suitable habitat is present on site.
Atriplex pacifica south coast saltbrush	Fed: None CA: None CNPS: 1B.2	Habitat types include coastal bluff scrub, coastal dunes, coastal scrub, and playas. Found at elevations ranging from 0 to 459 feet. Blooming period is from March to October.	No	**Presumed absent.** No suitable habitat is present on site.
Atriplex parishii Parish's brittlescale	Fed: None CA: None CNPS: 4.2	Grows in alkaline soils within chenopod scrub, playas, and vernal pool habitat. Found at elevations ranging from 82 to 6,234 feet. Blooming period is from June to October.	No	**Presumed absent.** No suitable habitat is present on site.
Atriplex serenana* var. *davidsonii Davidson's saltscale	Fed: None CA: None CNPS: 1B.1	Habitats include coastal bluff scrub and coastal scrub habitat. Found at elevations ranging from 32 to 656 feet. Blooming period is from April to October.	No	**Presumed absent.** No suitable habitat is present on site.

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
Brodiaea filifolia thread-leaved brodiaea	Fed: **THR** CA: **END** CNPS: 1B.1	Found in clay soils within chaparral openings, cismontane woodland, coastal scrub, playas, vernal pools, valley and foothill grassland. Found at elevations ranging from 82 to 3,675. Blooming period is from March to June.	No	**Presumed absent.** No suitable habitat is present on site.
California macrophylla round-leaved filaree	Fed: None CA: None CNPS: 1B.1	Habitats include cismontane woodland, valley and foothill grassland in clay soils. Found at elevations ranging from 49 to 3,937 feet. Blooming period is from March to May.	No	**Presumed absent.** No suitable habitat is present on site.
Caulanthus simulans Payson's jewflower	Fed: None CA: None CNPS: 4.2	Prefers sandy and granitic soils within chaparral and coastal scrub habitats. Found at elevations ranging from 295 to 7,218 feet. Blooming period is from February to June.	No	**Presumed absent.** No suitable habitat is present on site.
Centromadia pungens* ssp. *laevis smooth tarplant	Fed: None CA: None CNPS: 1B.1	Occurs in alkaline soils within chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland habitats. Grows in elevation ranging from 0 to 2,100 feet. Blooming period ranges from April to September.	Yes	**Present.** Species was observed during the 2015 site visit.
Chorizanthe polygonoides* var. *longispina long-spined spineflower	Fed: None CA: None CNPS: 1B.2	Grows in clays soils within chaparral, coastal scrub, vernal pools, valley and foothill grassland, and meadows and seeps. Found at elevations ranging from 98 to 5,019 feet. Blooming period ranges from April to July.	No	**Presumed absent.** No suitable habitat is present on site.
Deinandra paniculata paniculate tarplant	Fed: None CA: None CNPS: 4.2	Occurs on clay soils in coastal scrub, vernal pools, valley and foothill grassland habitats. Found at elevations ranging from 82 to 3,084 feet. Blooming period is from April to November.	No	**Presumed absent.** No suitable habitat is present on site.
Hordeum intercedens vernal barley	Fed: None CA: None CNPS: 3.2	Prefers coastal dunes, coastal scrub, vernal pools, valley and foothill grassland habitats. Found at elevations ranging from 16 to 3,281 feet. Blooming period is from March to June.	No	**Presumed absent.** No suitable habitat is present on site.
Lasthenia glabrata* ssp. *coulteri Coulter's goldfields	Fed: None CA: None CNPS: 1B.1	Habitats include playas, vernal pools, marshes and swamps. Found at elevations ranging from 3 to 4,003 feet. Blooming period is from February to June.	No	**Presumed absent.** No suitable habitat is present on site.
Navarretia fossalis spreading navarretia	Fed: **THR** CA: None CNPS: 1B.1	Grows in chenopod scrub, playas, vernal pools, marshes and swamps habitat. Found at elevations ranging from 98 to 2,149 feet. Blooming period is from April to June.	No	**Presumed absent.** No suitable habitat is present on site.
Trichocoronis wrightii* var. *wrightii Wright's trichocoronis	Fed: None CA: None CNPS: 2B.1	Occurs in vernal pool, riparian forest, meadows and seeps, marshes and swamp habitats. Found at elevations ranging from 16 to 1,427 feet. Blooming period is from May to September.	No	**Presumed absent.** No suitable habitat is present on site.

U.S. Fish and Wildlife Service (USFWS) - Federal
END- Federal Endangered
THR- Federal Threatened

California Department of Fish and Wildlife (CDFW) - California
END- California Endangered
CSC- California Species of Concern
WL- Watch List
FP- California Fully Protected

California Native Plant Society (CNPS)
California Rare Plant Rank
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
4 Plants of Limited Distribution – A Watch List

Threat Ranks
0.1- Seriously threatened in California
0.2- Moderately threatened in California
0.3- Not very threatened in California

AIRPORT LAND USE COMMISSION HEARING
REPORT OF ACTIONS
MAY 12, 2016

5-31-16

COMMISSIONERS PRESENT: Simon Housman, Rod Ballance, Arthur Butler, Glen Holmes, John Lyon, Steve Manos, Russell Betts, alternate for Greg Pettis

COMMISSIONERS ABSENT: Greg Pettis

2.0 PUBLIC HEARING: CONTINUED ITEM

2.1 Staff report recommended: **CONSISTENT**

Staff recommended at hearing: **CONSISTENT**

ALUC Commission Action: **CONSISTENT (Vote 7-0)**

ZAP1185MA16 – Vogel Properties (Representative: Nick Johnson) – City of Moreno Valley Case No. PA16-0002 (Site Plan Review). The applicant is proposing to develop a 446,350 square foot manufacturing/distribution center on 19.61 acres. The building floor plan consists of 347,080 square feet of warehouse area, 89,270 square feet of manufacturing area, and 10,000 square feet of 2nd floor mezzanine/office area. The project site is located northerly of Harley Knox Boulevard, southerly of the westerly extension of Grove View Road, easterly of Heacock Street, and westerly of Indian Street. (Airport Compatibility Zones B2 and C1 of the March Air Reserve Base/Inland Port Airport Influence Area). ALUC Staff Planner: Paul Rull at (951) 955-6893, or e-mail at prull@rctlma.org

3.0 PUBLIC HEARING: NEW ITEMS

3.1 Staff report recommended: **CONSISTENT (GPA, CZ); CONDITIONALLY CONSISTENT (Tract Map)**

Staff recommended at hearing: **CONSISTENT (GPA, CZ, Tract Map) - FAA received for Tract Map. Amend Condition No. 5 and add Condition Nos. 6 through 9.**

ALUC Commission Action: **CONSISTENT (GPA, CZ, Tract Map) with amended and added conditions, as recommended. (Vote 7-0)**

ZAP1067FV16 – Davidson Communities, LLC (Representative: Sean Kilkenny) - City of Murrieta Case Nos. GPA 2015-684 (General Plan Amendment), CZ 2015-685 (Zone Change), and Tentative Tract Map No. 37108. The applicant proposes to divide 67.58 acres (Assessor's Parcel Numbers 963-060-001, 963-060-004, and 963-060-069) located westerly of Briggs Road, northerly of Porth Road, and easterly of Liberty Road into 229 single-family residential lots, plus additional lots for open space, detention and water quality basins, and landscaping ("Liberty Fields"). In order to attain the requested density, the applicant proposes to amend the General Plan designation of the project site from Large Lot Residential (0.1 to 1.0 dwelling units per acre) to Single Family Residential (1.1 to 10.0 dwelling units per acre) and to change the zoning of the property from Rural Residential (0.1 to 0.4 dwelling units per acre) to SF-2 [Single Family Residential 2] (5.1 to 10.0 dwelling units per acre, 5,000 square foot minimum lot size). (Airport Compatibility Zones C and D of the French Valley Airport Influence Area – no homes proposed in Zone C). ALUC Staff Planner: Paul Rull at (951) 955-6893, or e-mail at prull@rctlma.org

CDS:

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Attachment: Appendix I - Airport Compatability Documentation to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001)

AIRPORT LAND USE COMMISSION HEARING
REPORT OF ACTIONS
MAY 12, 2016

3.2 Staff report recommended: **CONSISTENT(GPA, Zone Change); CONDITIONALLY CONSISTENT (Development Plan Review)**

Staff recommended at hearing: **CONSISTENT (GPA, Zone Change, Development Plan Review) – FAA received for DPR. Amend Condition No. 8 and add condition Nos. 9 through 12.**

ALUC Commission Action: **CONSISTENT (GPA, Zone Change, Development Plan Review) with amended and added conditions as recommended. (Vote 7-0)**

ZAP1009PV16 – Metz & A, LLC/Nicholas Brose (Representative: Jei Kim, Pacific Coast Land Consultants) – City of Perris Planning Case Nos. GPA 16-05031 (General Plan Amendment), Zone ZC 16-05030 (Zone Change) and DPR 16-00002 (Development Plan Review). The applicant is proposing a General Plan Amendment and Zone Change to change the City of Perris General Plan land use designation and zoning classification of 17.29 acres (Assessor's Parcel Numbers 311-040-013, -015, -021, -024, and -026) located at the northeast corner of "A" Street and Metz Road from R-6000 (Single-Family Residential, 6,000 square foot minimum lots) to MFR-22 (Multi-Family Residential, up to 22 dwelling units per acre), and a Development Plan Review to construct a 376 unit apartment complex on the property, consisting of 28 apartment buildings with a maximum building height of 40 feet, 518 parking spaces with a mixture of covered and uncovered stalls, a single-story 4,482 square foot clubhouse with a 616 square foot covered outdoor gallery/corridor, and 1 drainage/detention basin. (Airport Compatibility Zone D of March Air Reserve Base/Inland Port Airport Influence Area and partially in Airport Compatibility Zone E of Perris Valley Airport Influence Area). ALUC Staff Planner: Paul Rull at (951) 955-6893, or e-mail at prull@rctlma.org

3.3 Staff report recommended: **CONSISTENT (SPA, Parcel Map); CONDITIONALLY CONSISTENT (Development Plan Review)**

Staff recommended at hearing: **CONSISTENT (SPA, Parcel Map, Development Plan Review) - FAA received for DPR. Amend Condition No. 9 and add Condition Nos. 10 through 13.**

ALUC Commission Action: **CONSISTENT (SPA, Parcel Map, Development Plan Review) with amended and added conditions, as recommended. (Vote 7-0)**

ZAP1192MA16 – Nicol Investment Company/NIC Oleander LLC (Representative: Dierdre McCollister, MIG Hogle-Ireland) – City of Perris Planning Case Nos. PLN16-00003 (Specific Plan Amendment), PLN16-05050 (Development Plan Review), and PLN16-05049 (Parcel Map). The applicant proposes to construct/develop a 380,000 square foot industrial warehouse/distribution building on 21.89 acres (Assessor's Parcel Numbers 294-210-008, -034, -035, -037, -038, -044, -046, and -056) located northerly of West Oleander Avenue, southerly and westerly of Harley Knox Boulevard, and easterly of Interstate 215 in the City of Perris. The building floor plan provides for 347,000 square feet of warehouse area, 10,000 square feet of first floor office area, and 23,000 square feet of second floor mezzanine office area. In order to provide for this use, the applicant is also proposing to amend the Perris Valley Commerce Center Specific Plan land use designation of this property from Commercial to Light Industrial. The associated Parcel Map would merge the eight existing parcels so as to include the entire facility on a single lot. (Airport Compatibility Zone B2 of the March Air Reserve Base/Inland Port Airport Influence Area). ALUC Staff Planner: Paul Rull at (951) 955-6893, or e-mail at prull@rctlma.org

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AIRPORT LAND USE COMMISSION HEARING
REPORT OF ACTIONS
MAY 12, 2016

3.4 Staff report recommended:
CONSISTENT

Staff recommended at hearing:
CONSISTENT

ALUC Commission Action:
CONSISTENT (Vote 7-0)

ZAP1191MA16 – Perris Mini-Storage Inc. (Representative: Charles Ware) – City of Perris Planning Case Nos. 16-05075 (Major Modification to Conditional Use Permit [CUP] No. 02-0061), 16-05076 (Minor Adjustment to CUP No. 02-0061), and 16-05077 (Specific Plan Amendment). The applicant proposes a Major Modification to CUP No. 02-0061 in order to construct five mini-storage buildings totaling 34,848 square feet (single-story buildings with a maximum height of 22-feet) on 1.57 acres (Assessor's Parcel Number 305-030-052) located along the westerly side of Perris Boulevard, northerly of Walnut Street and southerly of Rider Street, as an expansion of the existing mini-storage facility to the southwest. The applicant also proposes an amendment to the Perris Valley Commerce Center Specific Plan and use designation of both this parcel and the existing facility parcel (Assessor's Parcel Number 305-030-050) from Commercial to Light Industrial (total amendment area of 7.48 acres), and a Minor Adjustment to CUP No. 02-0061 to allow a maximum lot coverage of 56%, rather than 50%. (Airport Compatibility Zones B1-APZ II, B2 and C1 of the March Air Reserve Base/Inland Port Airport Influence Area). ALUC Staff Planner: Paul Rull at (951) 955-6893, or e-mail at prull@rctlma.org

3.5 Staff report recommended:
CONTINUE to 6-9-16

Staff recommended at hearing:
CONTINUE to 6-9-16 with the consent of the City

ALUC Commission Action:
CONTINUED to 6-9-16 with the consent of the City (Vote 7-0)

ZAP1194MA16 – City of Riverside (Representative: Doug Darnell) – City Case No. P15-1010 (General Plan Amendment). A proposal by the City of Riverside to amend its General Plan 2025 so as to bring that Plan into consistency with the 2014 March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan. Accordingly, the proposal includes amendments to the Land Use and Urban Design, Public Safety, Noise, and Circulation and Community Mobility Elements of the General Plan, as well as the Introduction section. (Airport Compatibility Zones B1-APZ II, B1, C1, C2, D, and E of the March Air Reserve Base/Inland Port Airport Influence Area). ALUC Staff Planner: John Guerin at (951) 955-0982, or e-mail at jguerin@rctlma.org

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AIRPORT LAND USE COMMISSION HEARING
REPORT OF ACTIONS
MAY 12, 2016

3.6 Staff report recommended:
INCONSISTENT

Staff recommended at hearing:
CONTINUE to 6-9-16
(Applicant's request)

ALUC Commission Action:
CONTINUED to 6-9-16 with the consent of the applicant (Vote 7-0)

ZAP1010PV16 – Raintree Investment Corporation (Representative: Melissa Perez, Albert A. Webb and Associates) – City of Perris Case No. 15-05181 (Tentative Tract Map No. 36988). A proposal to divide 37.65 acres (Assessor's Parcel Numbers 330-150-015 and 330-150-016) located westerly of Murrieta Road and northerly of Ethanac Road into 168 single-family residential lots and four open space lots. The proposed subdivision is located within the Green Valley Specific Plan in the City of Perris. (Airport Compatibility Zones D and E of the Perris Valley Airport Influence Area and Airport Compatibility Zone E of the March Air Reserve Base/Inland Port Airport Influence Area). ALUC Staff Planner: Paul Rull at (951) 955-6893, or e-mail at prull@rctlma.org

3.7 Staff report recommended:
INCONSISTENT

Staff recommended at hearing:
CONTINUE to 6-9-16
(Applicant's request)

ALUC Commission Action:
CONTINUED to 6-9-16 with the consent of the applicant (Vote 7-0)

ZAP1011PV16 – Raintree Investment Corporation (Representative: Melissa Perez, Albert A. Webb and Associates) – City of Perris Planning Case No. 15-05180 (Tentative Tract Map No. 36989). A proposal to divide 37.09 acres (Assessor's Parcel Numbers 330-150-011, 330-150-012, 330-150-013) located westerly of Murrieta Road, northerly of Ethanac Road, and easterly of Goetz Road into 147 single-family residential lots and three open space lots. The proposed subdivision is located within the Green Valley Specific Plan in the City of Perris. (Airport Compatibility Zones C and D of the Perris Valley Airport Influence Area and Airport Compatibility Zone E of the March Air Reserve Base/Inland Port Airport Influence Area). ALUC Staff Planner: Paul Rull at (951) 955-6893, or e-mail at prull@rctlma.org

3.8 Staff report recommended:
INCONSISTENT

Staff recommended at hearing:
INCONSISTENT

ALUC Commission Action:
INCONSISTENT (Vote 6-1, Holmes dissenting)

ZAP1076RI16 – Alta Vista Public Charter, Inc. (Representative: Kyle Knowland) – City of Riverside Planning Case No. P16-0161 (Conditional Use Permit). The applicant proposes to utilize a 10,250 square foot suite of an existing building located at 5188 Arlington Avenue in the Heritage Plaza shopping center on the south side of Arlington Avenue, easterly of its intersection with California Avenue/Streeter Avenue and westerly of its intersection with Madison Street, as a resource center for Alta Vista Public Charter School. The center would serve adolescents of high school age (14-19) pursuing an independent study program. Students would come to the resource center once a week for a one-hour individual session with their teachers. The number of persons in the suite at any given time is not expected to exceed the

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number that would be present if the suite were used as an office or a counseling center. A resource center is identified in California Education Code 47605.1 (c) (1) as a "facility [that] is used exclusively for the educational support of pupils who are enrolled in non classroom-based independent study." (Airport Compatibility Zones C and D of the Riverside Municipal Airport Influence Area). ALUC Staff Planner: Paul Rull at (951) 955-6893, or e-mail at prull@rctlma.org

4.0 ADMINISTRATIVE ITEMS

4.1 Director's Approvals - Information Only

4.2 Specific Delegation of Authority: Animal Hospital in March Zone C2

Nancy Hall, project representative, requested that the Commission delegate authority for a finding of consistency for this project. She stated that the previous tenant was a tae kwondo studio. This project is a one-veterinarian animal hospital. There would not be more than 15 people there at any one time. Riverside City Planning had missed this requirement. Having to wait for a June ALUC hearing would mean having to wait until late July or August to obtain the City permit, but the lessee has been paying rent since May 1. Commissioner Holmes expressed concern regarding Planning Departments not fully informing applicants regarding the need for ALUC review. Commissioner Manos advised that commercial lease contracts should include contingencies so that lessees do not have to pay rent until all City or County permits have been granted. Commissioner Holmes wondered whether the Commission should authorize expedited consideration and delegation on a regular basis in these situations. Chairman Housman believed it would be best to continue handling on a case-by-case basis. He asked ALUC Director Ed Cooper if he would be willing to accept the delegation of authority in this case. Mr. Cooper responded in the affirmative. The Commission authorized the specific delegation by a 7-0 vote.

5.0 APPROVAL OF MINUTES

The ALUC Commission by a unanimous vote of 7-0 approved the April 14, 2016 minutes.

6.0 ORAL COMMUNICATION ON ANY MATTER NOT ON THE AGENDA

None

7.0 COMMISSIONER'S COMMENTS

Commissioner Betts noted that the Chairman had to request several times that an exhibit be retained on the screen in situations where the video was showing one of the Commissioners or a speaker. Chairman Housman explained that the screens are showing the live streaming, which is required in order to use the Board of Supervisors' hearing room. The record of Commission hearings has been by audio CD, but is now by video (with audio backup). The technical staff have to balance what the Commissioners wish to view with what the public may wish to see. However, Commissioners may request a different image at any time, and the request would be honored.

The Chairman referred to the Commission's action in March finding the textile factory project consistent. The Air Force had a substantially different opinion on the matter. He noted that ALUC staff has subsequently had several meetings with the Air Force in order to more effectively address their concerns, and to have a better understanding of the reasons for the Air Force's

CDS:
The entire discussion of numbered agenda items can be found on CDs as indicated. For a copy of the CD, please contact Barbara Santos, ALUC Commission Secretary, at (951) 955-5132 or E-mail at basantos@rctlma.org

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position regarding types and intensities of land use in Accident Potential Zones. He commended ALUC Director Ed Cooper and Base Commander Brig. Gen. Russell Muncy for their efforts in improving communications, and noted that, as a result of these meetings, the Air Force and the local jurisdictions are now working much more closely.

Vice Chairman Ballance noted that Perris Valley Airport is now also serving the needs of the military and should be considered when evaluating the contributions of the military to the local economy. He also advised the Commissioners regarding a display of remotely piloted aircraft to occur on Saturday (May 14) at 9 a.m. at March Air Museum.

Y:\ALUC Report of Actions\2016 ROA\ROA5-12-16.doc

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SOLAR GLARE HAZARD ANALYSIS

Background

The City of Moreno Valley has a Solar Incentive Program. This program is limited to funds available on a first-come-first-served basis. The Program Requirements, effective July 1, 2015 state that "for commercial customers that fall under the Performance Based Incentive, the incentive is 4 cents per kWh for installations over 30 kWup to 500 kW. For installations over 500 kW up to 1 MW, the incentive will be determined on a case by case basis." In general, the use of solar is encouraged in the City of Moreno Valley. Chapter 9 of the city's General Plan, which outlines goals and objectives has two policies that specifically point to this:

> Policy 2.13.4 – Encourage installation of advanced technology infrastructure, including, but not limited to, infrastructure for high speed internet access and solar energy.
>
> Policy 7.5.5 – Encourage the use of solar power and other renewable energy systems.

Standard of Review

Because of the project's proximity to March Air Reserve Base, the FAA's policies addressing use of solar panels should be considered. The FAA's Interim Policy[1], FAA Review of Solar Energy System Projects on Federally Obligated Airports states that "proponents of solar energy systems located off-airport property or on non-federally-obligated airports are strongly encouraged to consider the requirements of this policy." In certain situations the glass surfaces of the solar energy systems can reflect sunlight and produce glint and glare. This glint and glare could result in an ocular impact to pilots or air traffic controllers and compromise safety. The interim solar policy further states:

- To obtain … a ''no objection'' to a Notice of Proposed Construction Form 7460–1, the airport sponsor will be required to demonstrate that the proposed solar energy system meets the following standards:

  1. No potential for glint or glare in the existing or planned Airport Traffic Control Tower (ATCT) cab, and
  2. No potential for glare or ''low potential for after-image'' (shown in green) along the final approach path for any existing landing threshold or future landing thresholds.

- Ocular impact must be analyzed over the entire calendar year in one (1) minute intervals from when the sun rises above the horizon until the sun sets below the horizon.

- In cooperation with the DOE, the FAA is making available free-of-charge the Solar Glare Hazard Analysis Tool (SGHAT). The SGHAT was designed to determine whether a proposed solar energy project would result in the potential for ocular impact as depicted on the Solar Glare Hazard Analysis Plot. Users must first register for the use of the tool at this web address: www.sandia.gov/glare.

[1] Federal Register, Volume 78, No. 205, Wednesday, October 23, 2013, Department of Transportation, Federal Aviation Administration, Interim Policy, FAA Review of Solar Energy System Projects on Federally Obligated Airports, Pages 63276-63279.

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Solar Glare Hazard Analysis Findings

Johnson Aviation performed a solar glare hazard analysis (the "Analysis") using Sandia Labs Solar Glare Hazard Analysis Tool (SGHAT) for a potential solar photovoltaic (Solar PV) site that could encompass the entire roof top of the Project (See Figures 1 and 2). This Analysis is based on the location of the March ARB Airport Traffic Control Tower (ATCT) and for the final approach paths to Runway 32, Runway 14 as encouraged by the FAA.

The findings of the Analysis are that there is ***No Glare*** potential for the air traffic controllers in the ATCT cab, ***No Glare*** potential for pilots approaching Runway 14 and a ***"low potential for after-image"*** in two locations along the final approach path to Runway 32 (See Figure 3). These findings meet the requirements recommended by the FAA for off-airport Solar PV installations and would therefore present ***no hazard to air navigation***. Findings from the Analysis are presented in the figures that follow.

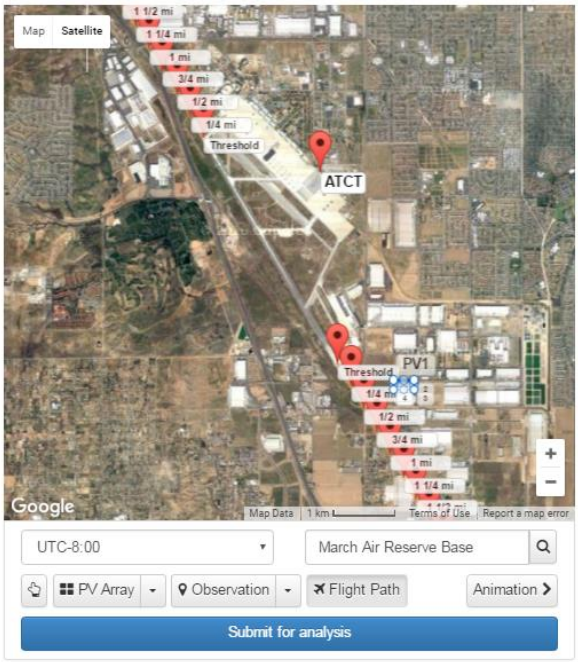
Figure 1: Project Site Location – 17845 Indian St., Moreno Valley, CA



Figure 2: Potential Roof Top Solar PV Site



Figure 3: SGHAT Analysis Tool Summary of Results



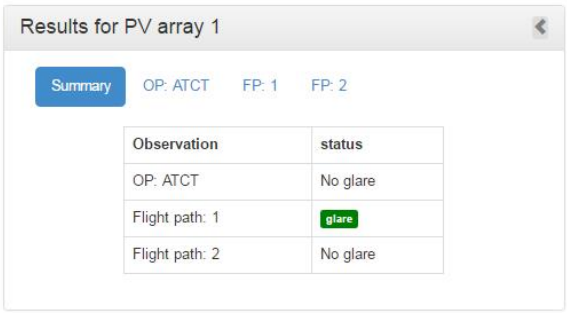




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Figure 4: SGHAT Analysis Tool Results for Air Traffic Control Tower (ATCT) Cab

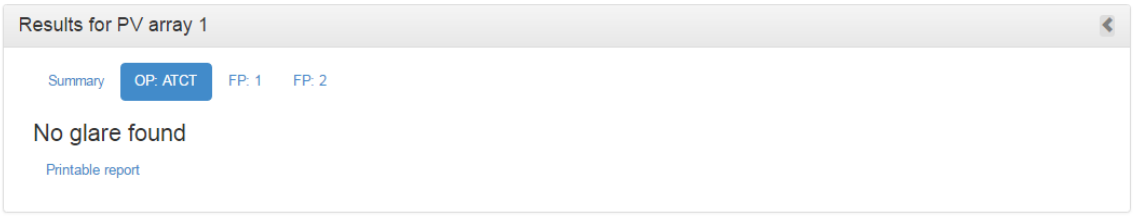

Figure 5: SGHAT Analysis Tool Results for Flight Path 1 – Final Approach to March ARB Runway 32



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Figure 6: Glare Occurrence Plot – ¼ Mile from March ARB Runway 32 Threshold

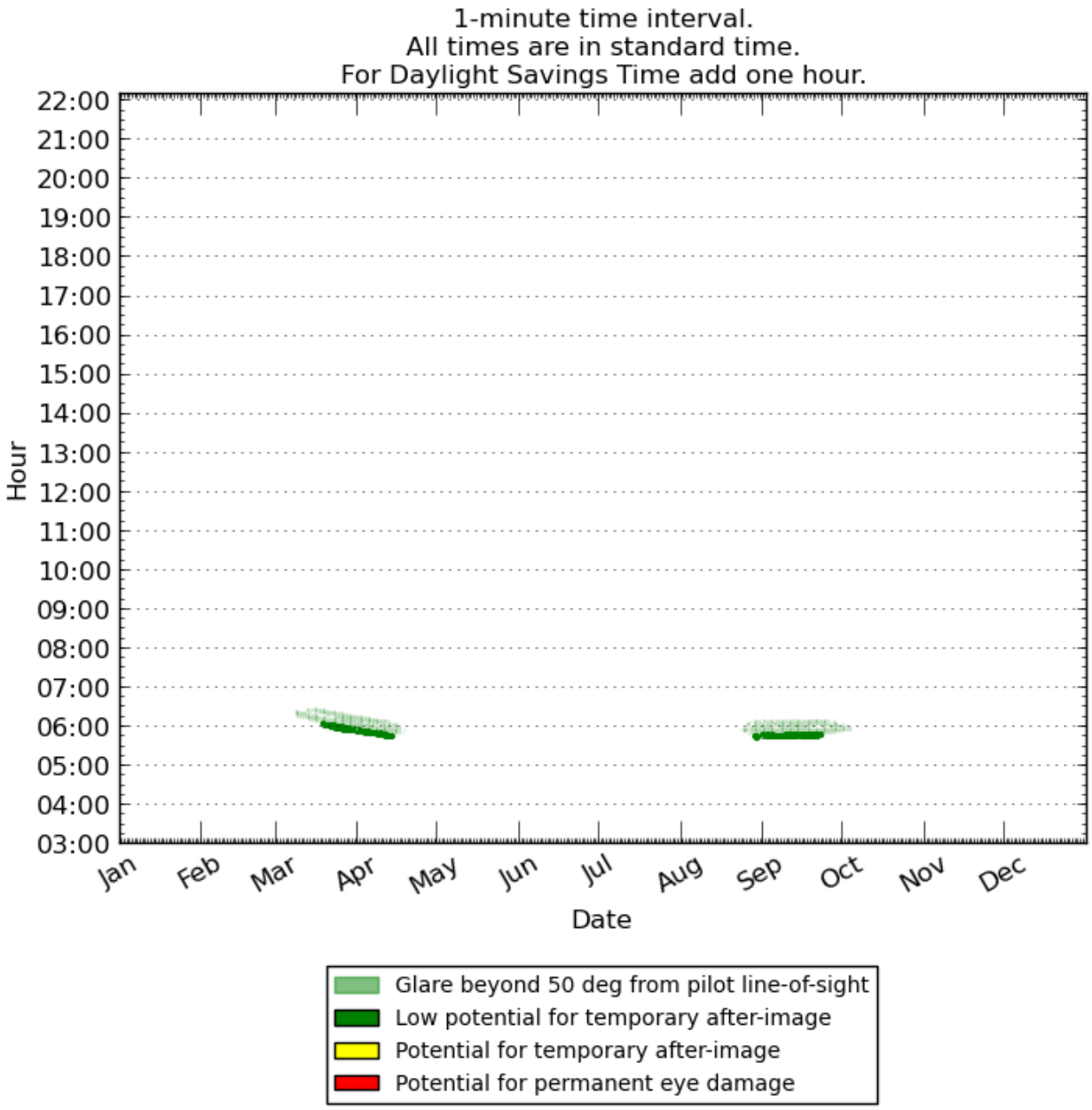

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Figure 7: Glare Occurrence Plot – 1/2 Mile from March ARB Runway 32 Threshold

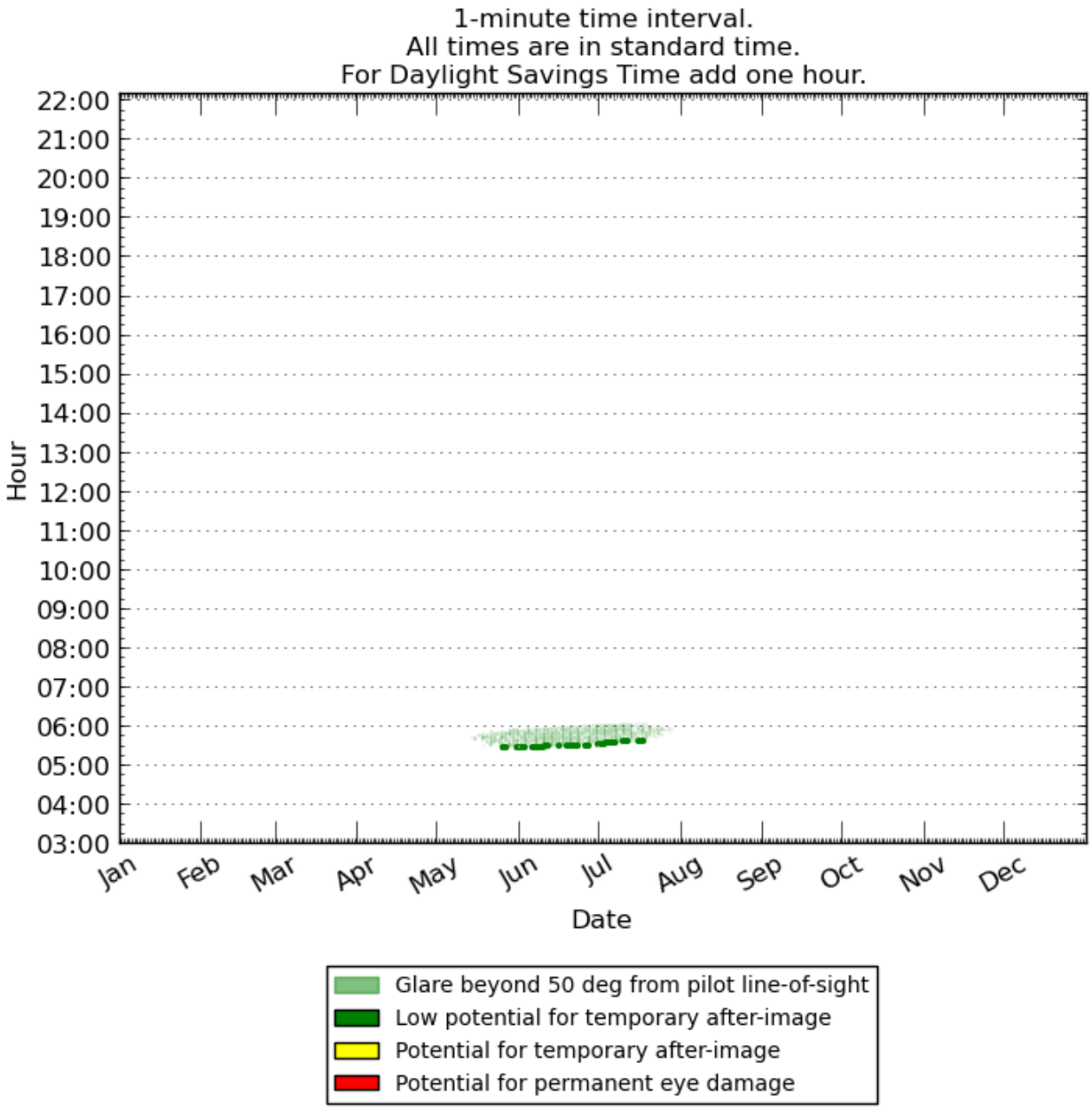

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Figure 8: SGHAT Analysis Tool Results for Flight Path 2 – Final Approach to March ARB Runway 14



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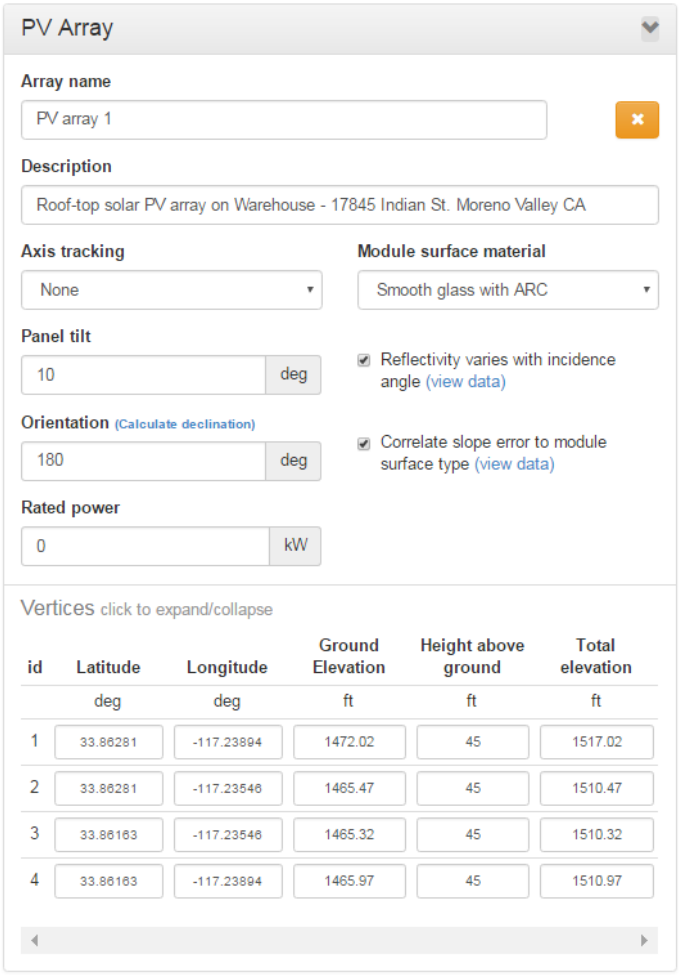
Solar Glare Hazard Analysis Technical Input Parameters

The following figures provide detailed technical input parameters to the SGHAT model that produced the findings of the Analysis. The PV Array is assumed in the Analysis to be a roof top solar array on the Project site. Figures 9 through 12 provides the SGHAT input parameters.

Figure 9: PV Array Input Parameters



PV Array

Array name

PV array 1

Description

Roof-top solar PV array on Warehouse - 17845 Indian St. Moreno Valley CA

Axis tracking: None

Module surface material: Smooth glass with ARC

Panel tilt: 10 deg

Reflectivity varies with incidence angle (view data)

Orientation (Calculate declination): 180 deg

Correlate slope error to module surface type (view data)

Rated power: 0 kW

Vertices click to expand/collapse

id	Latitude	Longitude	Ground Elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	33.86281	-117.23894	1472.02	45	1517.02
2	33.86281	-117.23546	1465.47	45	1510.47
3	33.86163	-117.23546	1465.32	45	1510.32
4	33.86163	-117.23894	1465.97	45	1510.97

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Figure 10: Flight Path 1 Input Parameters – March Air Reserve Base Runway 32

Flight Path(s)

Flight path name

1

Description

Final approach to March Air Reserve Base Runway 32

Direction

330 deg

Consider pilot visibility from cockpit

Glide slope

3 deg

Max downward viewing angle

30 deg

Threshold crossing height

59 ft

Azimuthal viewing angle

180 deg

Path observation points click to expand/collapse

	Latitude	Longitude	Ground Elevation	Eye-level height above ground
	deg	deg	ft	ft
Threshold	33.86514	-117.2483	1495.81	59
1/4 mi	33.86201	-117.24613	1480.86	143.13
1/2 mi	33.85888	-117.24395	1472.29	220.89
3/4 mi	33.85575	-117.24177	1470.35	292
1 mi	33.85262	-117.23959	1471.48	360.04
1 1/4 mi	33.84949	-117.23742	1468.53	432.17
1 1/2 mi	33.84636	-117.23524	1469.07	500.81
1 3/4 mi	33.84323	-117.23306	1476.67	562.4
2 mi	33.8401	-117.23089	1461.03	647.21

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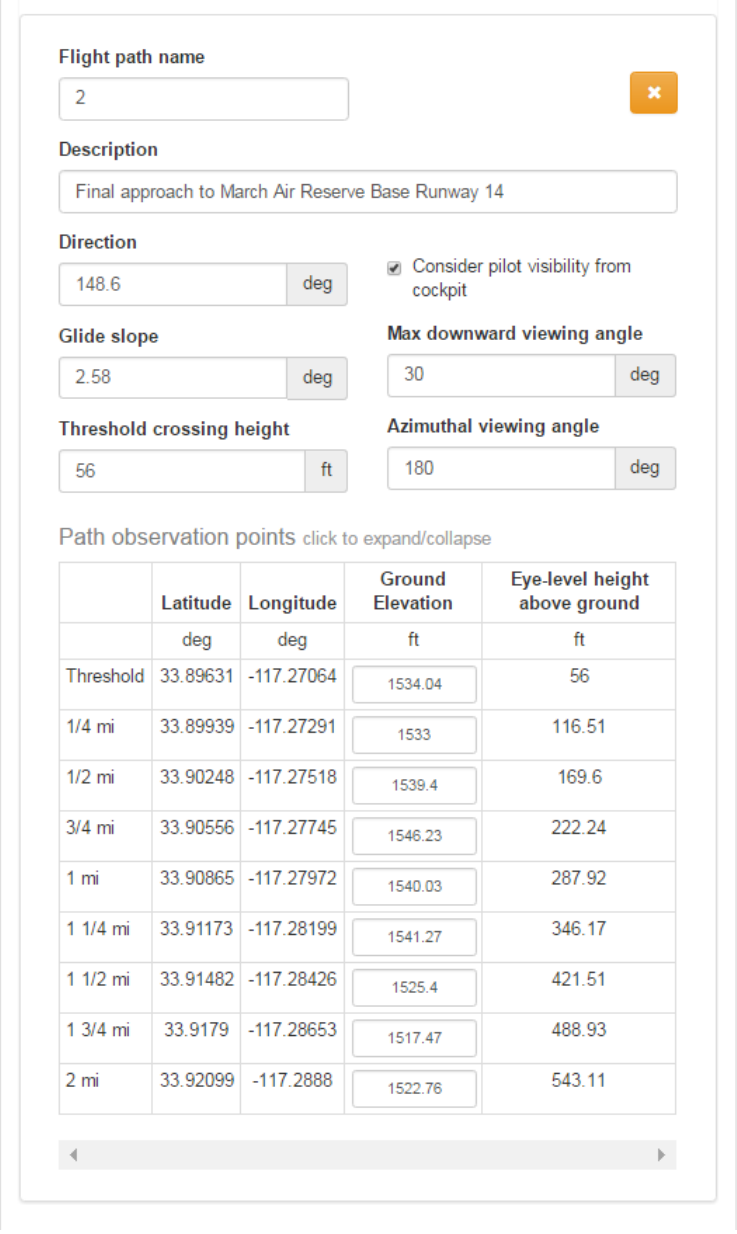
Figure 11: Flight Path 2 Input Parameters – March Air Reserve Base Runway 14



Flight path name

2

Description

Final approach to March Air Reserve Base Runway 14

Direction

148.6 deg

Consider pilot visibility from cockpit

Glide slope

2.58 deg

Max downward viewing angle

30 deg

Threshold crossing height

56 ft

Azimuthal viewing angle

180 deg

Path observation points click to expand/collapse

	Latitude	Longitude	Ground Elevation	Eye-level height above ground
	deg	deg	ft	ft
Threshold	33.89631	-117.27064	1534.04	56
1/4 mi	33.89939	-117.27291	1533	116.51
1/2 mi	33.90248	-117.27518	1539.4	169.6
3/4 mi	33.90556	-117.27745	1546.23	222.24
1 mi	33.90865	-117.27972	1540.03	287.92
1 1/4 mi	33.91173	-117.28199	1541.27	346.17
1 1/2 mi	33.91482	-117.28426	1525.4	421.51
1 3/4 mi	33.9179	-117.28653	1517.47	488.93
2 mi	33.92099	-117.2888	1522.76	543.11

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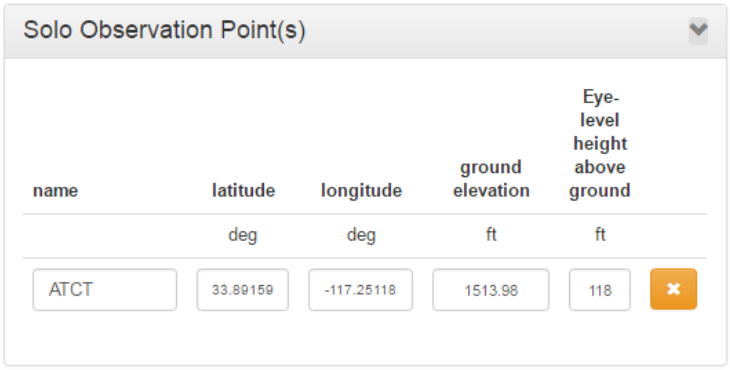
Figure 12: March Air Reserve Base Airport Traffic Control Tower (ATCT)



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Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No
2016-AWP-4583-OE

Issued Date: 07/29/2016

Patrick Russell
SRG Aquisitions, LLC
18802 Bardeen Avenue
Irvine, CA 92612-1521

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building MV Indian Street -4
Location:	Moreno Valley, CA
Latitude:	33-51-41.05N NAD 83
Longitude:	117-14-20.09W
Heights:	1469 feet site elevation (SE)
	43 feet above ground level (AGL)
	1512 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 L.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 01/29/2018 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

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6 months of the date of this determination. In such case, the determination expires on the da prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-AWP-4583-OE.

Signature Control No: 291689832-300365240 (DNE)
Karen McDonald
Specialist

Attachment(s)
Map(s)

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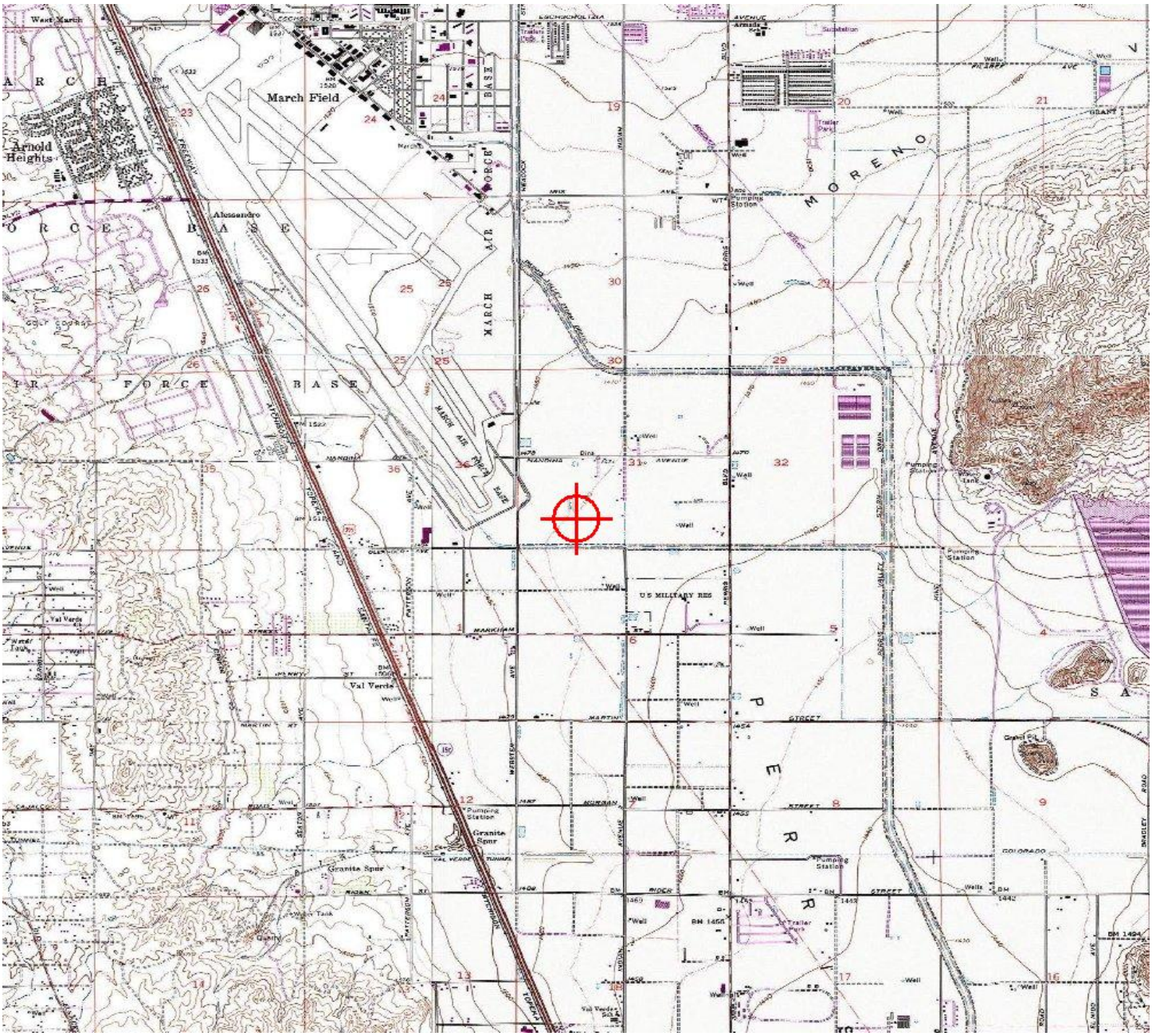

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Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No
2016-AWP-4582-OE

Issued Date: 07/29/2016

Patrick Russell
SRG Aquisitions, LLC
18802 Bardeen Avenue
Irvine, CA 92612-1521

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building MV Indian Street -3
Location:	Moreno Valley, CA
Latitude:	33-51-40.87N NAD 83
Longitude:	117-14-08.06W
Heights:	1469 feet site elevation (SE)
	43 feet above ground level (AGL)
	1512 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

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__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 L.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 01/29/2018 unless:

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If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-AWP-4582-OE.

Signature Control No: 291689831-300365241 (DNE)
Karen McDonald
Specialist

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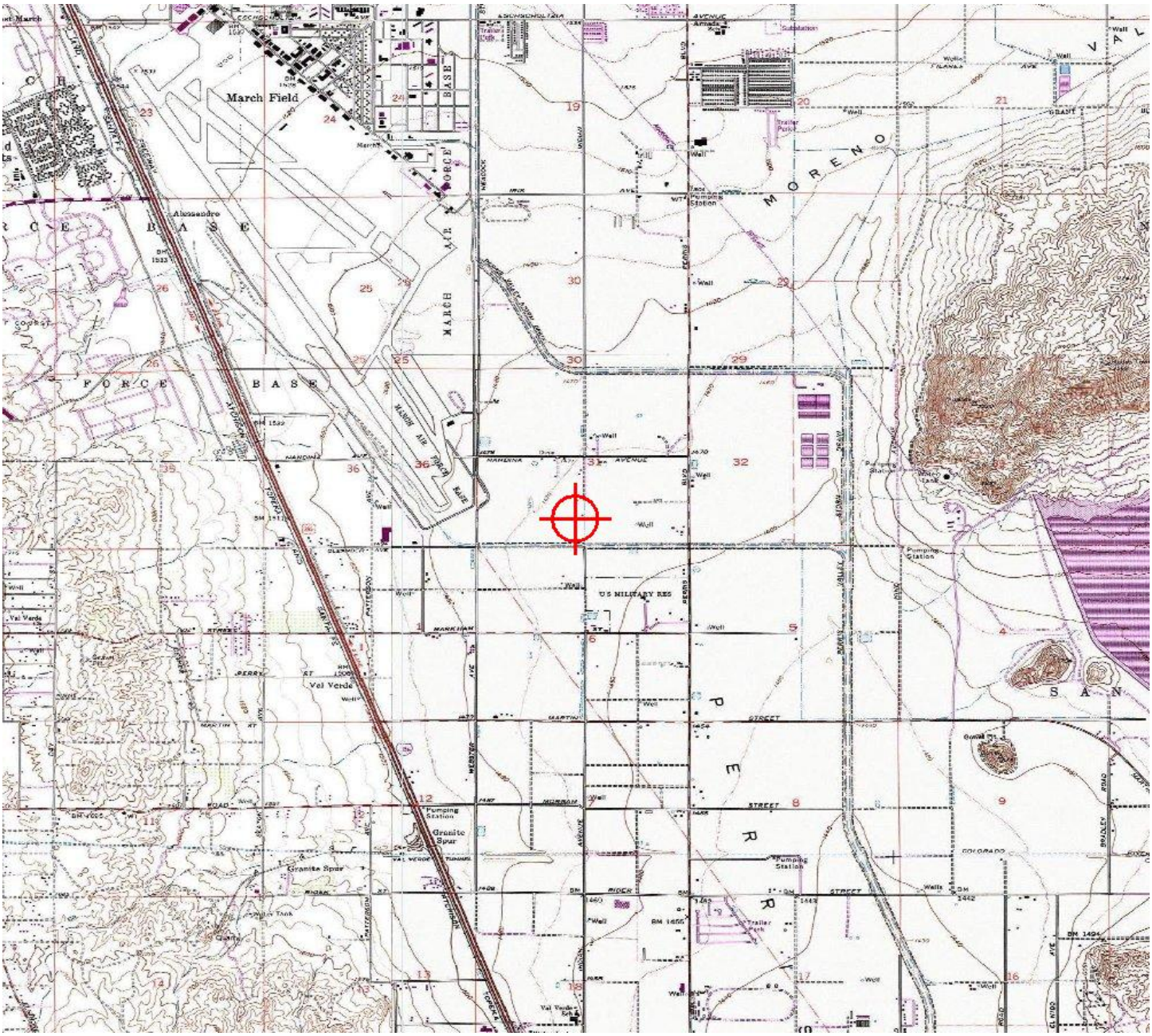

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10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No
2016-AWP-4581-OE

Issued Date: 07/29/2016

Patrick Russell
SRG Aquisitions, LLC
18802 Bardeen Avenue
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NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

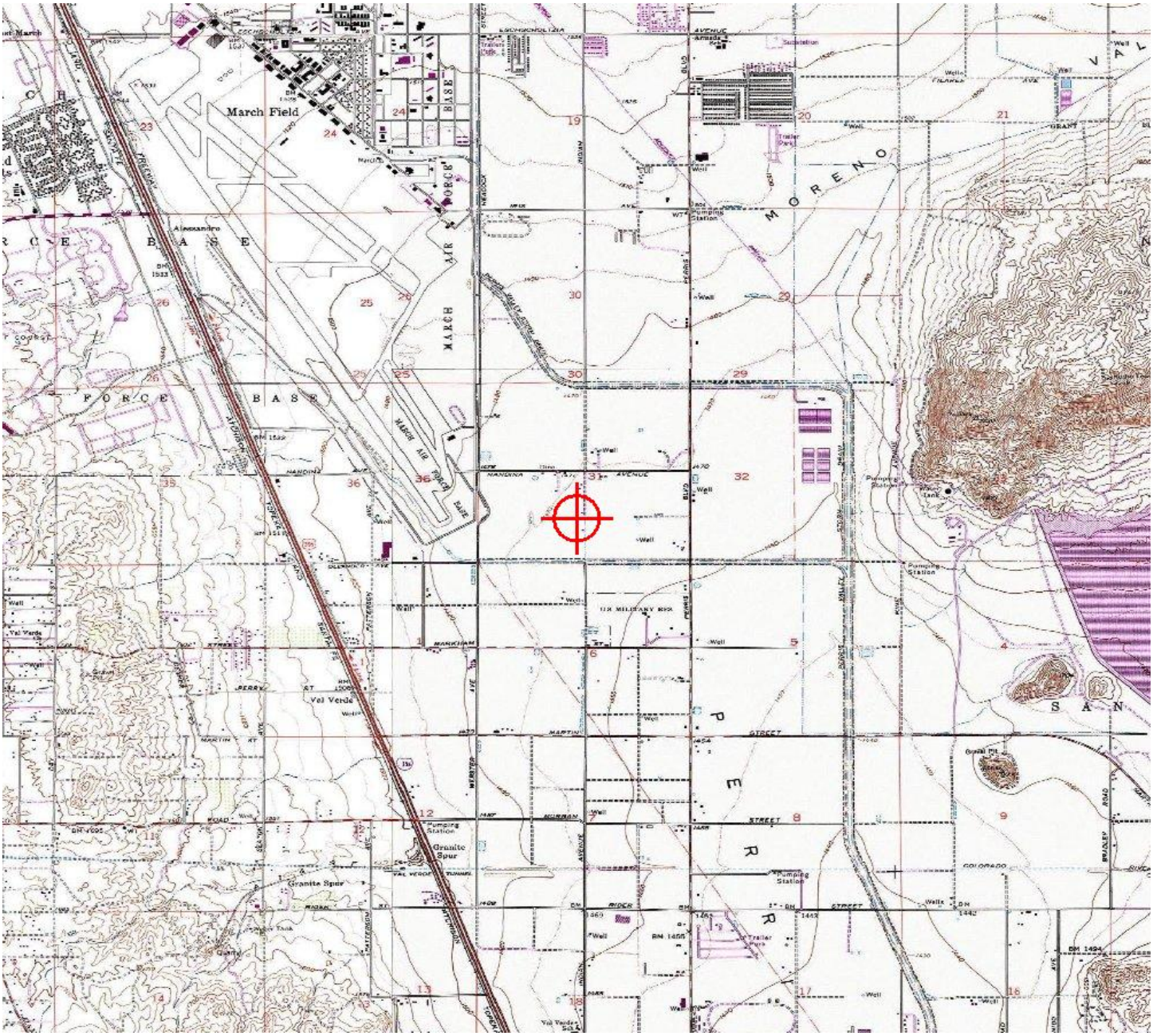
Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-AWP-4581-OE.

Signature Control No: 291689830-300365239 (DNE)
Karen McDonald
Specialist

Attachment(s)
Map(s)

Attachment: Appendix I - Airport Compatability Documentation to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001)



Attachment: Appendix I - Airport Compatability Documentation to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001)

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No
2016-AWP-4580-OE

Issued Date: 07/29/2016

Patrick Russell
SRG Aquisitions, LLC
18802 Bardeen Avenue
Irvine, CA 92612-1521

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building MV Indian Street -1
Location:	Moreno Valley, CA
Latitude:	33-51-45.42N NAD 83
Longitude:	117-14-20.10W
Heights:	1469 feet site elevation (SE)
	43 feet above ground level (AGL)
	1512 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 L.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 01/29/2018 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

Attachment: Appendix I - Airport Compatability Documentation to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001)

6 months of the date of this determination. In such case, the determination expires on the da prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

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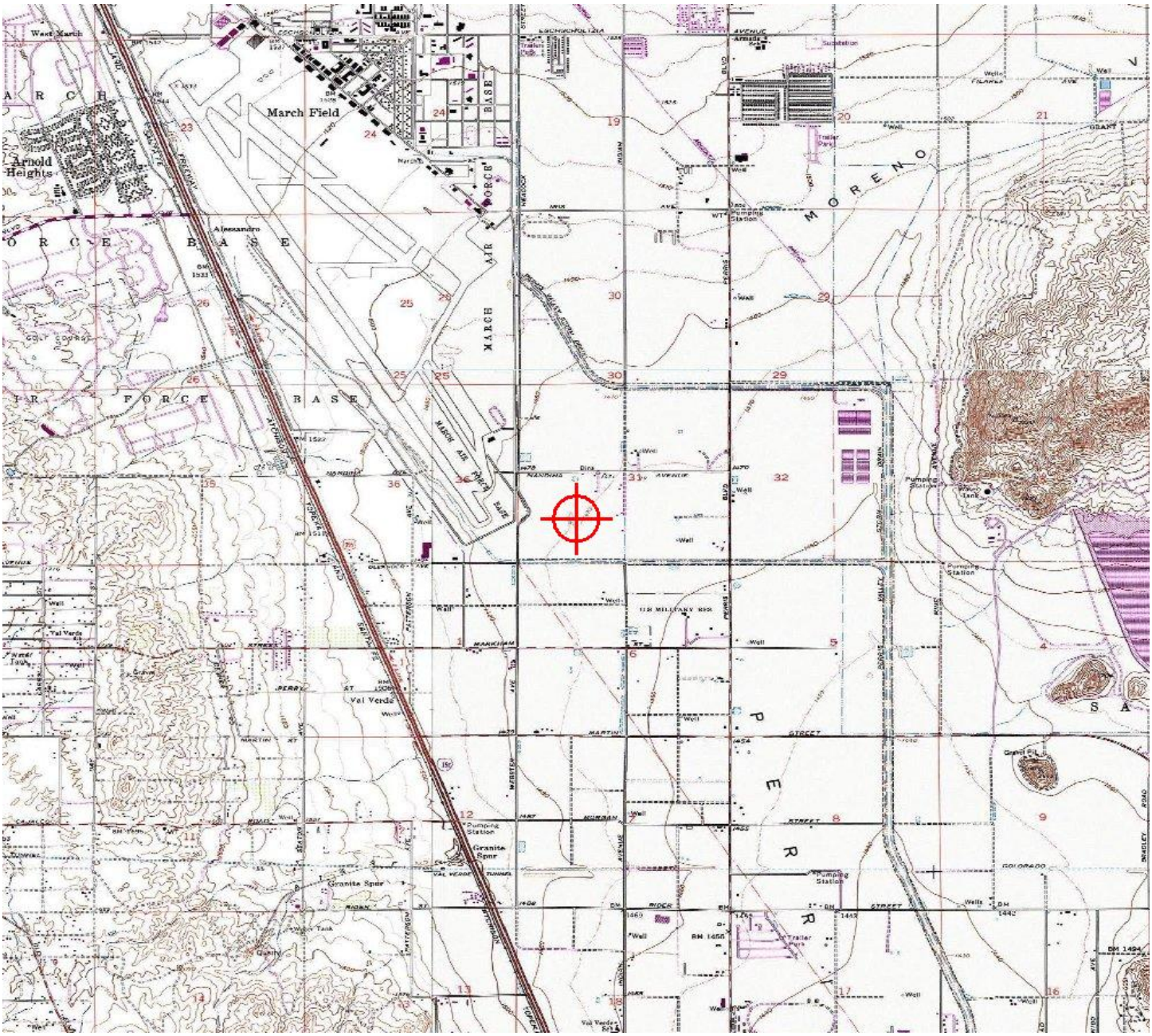
If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-AWP-4580-OE.

Signature Control No: 291689829-300365242 (DNE)
Karen McDonald
Specialist

Attachment(s)
Map(s)

Attachment: Appendix I - Airport Compatability Documentation to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001)



Attachment: Appendix I - Airport Compatability Documentation to EIR [Revision 2] (2416 : A PUBLIC HEARING FOR AN APPEAL (PAA16-0001)

Report to City Council

TO:	Mayor and City Council
FROM:	Ahmad R. Ansari, P.E., Public Works Director/City Engineer
AGENDA DATE:	February 7, 2017
TITLE:	MUNICIPAL CODE UPDATE – SECTION 8.12.140 - DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR

RECOMMENDED ACTION

Recommendations: That the City Council:

1. Conduct a Public Hearing on proposed amendment to Section 8.12.140 of the City of Moreno Valley Municipal Code.

2. Introduce Ordinance No. 919, an Ordinance of the City Council of the City of Moreno Valley, California, thereby amending the City of Moreno Valley Municipal Code Section 8.12.140 related to floodplain development approvals.

3. Set the second reading and adoption of the Ordinance for the next regularly scheduled Council Meeting on February 21, 2017.

SUMMARY

This report recommends adoption of an Ordinance to amend the City's Municipal Code Chapter 8.12 "Flood Damage Prevention and Implementation of National Flood Insurance Program." The Chapter currently requires that development projects within floodplains are to have Federal Emergency Management Administration (FEMA) Letter of Map Revisions (LOMRs) approved prior to building permit. In order to streamline the development process, an Ordinance is proposed to amend the Municipal Code to allow the approval of the LOMR prior to issuance of a certificate of occupancy.

DISCUSSION

The timing of FEMA LOMR approvals per the City's Municipal Code (8.12.140) has been in conflict with typical construction practices. Currently, a developer has to have

an approved LOMR prior to Building Permit. This requirement can result in extensive delays to projects. Typically, a development site is graded to prepare the site for building construction. Once grading is complete, the LOMR has to be prepared and then submitted to FEMA for approval per the current Municipal Code requirements. This is typically a three to six month process. Meanwhile, the developer is waiting to move forward with construction incurring costs due to the delay in receiving the Building Permit.

City staff reviewed other jurisdictions' practices regarding LOMR approval in preparation of this proposed Ordinance. The County of Riverside, City of Corona, City of Perris, and City of Ontario require LOMR approval prior to a certificate of occupancy. The City of Murrieta and City of Rancho Cucamonga require the LOMR to be submitted to FEMA within six months of the information becoming available. Therefore, the proposed revision to the Municipal Code would be consistent with other jurisdictions within the Inland Empire.

Finally, City staff reached out to County of Riverside staff since the County's Ordinance had recently been audited by FEMA and the California Department of Water Resources (DWR). The County Ordinance was found to be in conformance with FEMA and DWR requirements. City staff then followed up with FEMA and DWR staff that conducted the audit regarding a potential change to the City of Moreno Valley Municipal Code with regards to the approval of LOMRs. Both FEMA and DWR responded that a change to LOMR approval prior to issuance of a certificate of occupancy would meet the requirements of the California Ordinance Review Checklist. Thus, it would not impact the City's standing as a part of the National Flood Insurance Program (NFIP). The NFIP is a program administered by FEMA enabling property owners in participating communities to purchase insurance as protection against flood losses. The City of Moreno Valley is a part of the NFIP-Community Rating System (CRS) and is required to submit annual reports on City activities related to the program. There are audits conducted every five years in which a score is assigned, most recently in 2012. This score sets how much of a discount flood insurance policy holders will receive. The scoring is established based upon several criteria ranging from Elevation Certificates to Floodplain Management Planning. Based upon the 2012 audit, a five percent discount is available to flood insurance policy holders in Moreno Valley.

The proposed Ordinance will streamline the delivery of development projects. This is consistent with the intent of the Momentum MoVal Priority 1 - Economic Development business opportunities and job creation.

ALTERNATIVES

1. Introduce and read by title only the proposed Ordinance to amend Section 8.12.140 of the Moreno Valley Municipal Code regarding the approval of LOMRs. *Staff recommends this alternative in order to streamline development within floodplains.*

2. Do not approve the recommended action as presented in this staff report. *Staff does not recommend this alternative because development construction within floodplains will continue to be delayed during the FEMA LOMR approval process.*

FISCAL IMPACT

There is no fiscal impact to the General Fund associated with the proposed ordinance.

NOTIFICATION

A 1/8 page public hearing notice for this code amendment was published in the local newspaper on January 28, 2017.

PREPARATION OF STAFF REPORT

Prepared By:
Michael Lloyd, P.E.
Engineering Division Manager

Department Head Approval:
Ahmad R. Ansari, P.E.
Public Works Director/City Engineer

CITY COUNCIL GOALS

Positive Environment. Create a positive environment for the development of Moreno Valley's future.

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

See the Discussion section above for details of how this action supports the City Council's Strategic Priorities.

ATTACHMENTS

1. CC Newspaper Notice
2. LOMR Approval Ordinance

APPROVALS

Budget Officer Approval	✓ Approved	1/24/17 1:56 PM
City Attorney Approval	✓ Approved	1/25/17 9:47 AM

City Manager Approval ✓ Approved 1/26/17 9:53 AM

NOTICE OF CITY COUNCIL PUBLIC HEARING

THE CITY COUNCIL WILL CONSIDER AN ORDINANCE AMENDING SECTION 8.12.140 OF CHAPTER 8.12 OF TITLE 8 OF THE CITY OF MORENO VALLEY MUNICIPAL CODE, DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR

The Municipal Code revision will adjust the development process within floodplains. Required approvals for FEMA Letters of Map Revisions will be at the time of the issuance of a certificate of occupancy with the proposed action.

Any person interested in the proposed project may contact Michael Lloyd, Engineering Division Manager at (951) 413-3120 in the Public Works Department at 14177 Frederick Street, Moreno Valley, California, during normal business hours (7:30 a.m. to 5:30 p.m., Monday – Thursday and 7:30 a.m. to 4:30 p.m. on Fridays) or may telephone (951) 413-3120 for further information.

If you challenge any of these items in court, you may be limited to raising only those issues you or someone else raised at the Public Hearing described in this notice, or in written correspondence delivered to the City Council on or before the following meeting date:

Tuesday, February 7, 2017
6:00 P.M.
City Council Chamber
14177 Frederick Street.
Moreno Valley, CA 92552-0805

Attachment: CC Newspaper Notice [Revision 1] (2408 : MUNICIPAL CODE UPDATE – SECTION 8.12.140 - DUTIES)

ORDINANCE NO. 919

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, AMENDING SECTION 8.12.140 OF CHAPTER 8.12 OF TITLE 8 OF THE CITY OF MORENO VALLEY MUNICIPAL CODE, DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR

WHEREAS, the City Council of the City of Moreno Valley seeks to streamline the development process for consistency with construction practices, specifically projects within designated floodplains requiring federal approvals;

WHEREAS, the City is a member of the National Floodplain Insurance Program Community Rating System that affords flood insurance policy holders a discount; and

WHEREAS, the adoption of this Ordinance will make City procedures for floodplain administration consistent with County of Riverside procedures that are consistent with the National Floodplain Insurance Program Community Rating System;

The City Council of the City of Moreno Valley does ordain as follows:

SECTION 1. RECITALS

The recitals set forth above are true and correct and are incorporated herein by reference.

SECTION 2: MUNICIPAL CODE AMENDED

Title 8 of the City of Moreno Valley Municipal Code is hereby amended as follows:

Section 8.12.140(A)(5) of Chapter 8.12 of Title 8 of the City of Moreno Valley Municipal Code is deleted and replaced with the following:

"8.12.140(A)(5) All Letters of Map Revision (LOMRs) for projects shall be approved prior to issuance of any certificates of occupancy. Building Permits may be issued on Conditional Letters of Map Revision (CLOMRs)."

Section 8.12.140(D)(2)(b) of Chapter 8.12 of Title 8 of the City of Moreno Valley Municipal Code is deleted and replaced with the following:

"8.12.140(D)(2)(b) All LOMRs for projects shall be approved prior to issuance of any certificates of occupancy. Building Permits may be issued on CLOMRs."

Attachment: LOMR Approval Ordinance [Revision 2] (2408 : MUNICIPAL CODE UPDATE – SECTION 8.12.140 - DUTIES)

SECTION 3. SEVERABILITY

That should any provision, section, paragraph, sentence or word of this ordinance be rendered or declared invalid by any final court action in a court of competent jurisdiction or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences or words of this ordinance as hereby adopted shall remain in full force and effect.

SECTION 4. REPEAL OF CONFLICTING PROVISIONS

All provisions of the City of Moreno Valley Municipal Code as heretofore adopted that are in conflict with the provisions of this ordinance are hereby repealed.

SECTION 5. EFFECT OF ENACTMENT:

Except as specifically provided herein, nothing contained in this ordinance shall be deemed to modify or supersede any prior enactment of the City Council which addresses the same subject addressed herein.

SECTION 6. NOTICE OF ADOPTION:

Within fifteen days after the date of adoption hereof, the City Clerk shall certify to the adoption of this ordinance and cause it to be posted in three public places within the City.

SECTION 7. EFFECTIVE DATE:

This ordinance shall take effect thirty days after the date of its adoption.

APPROVED AND ADOPTED this 21st day of February, 2017.

_____
Mayor

ATTEST:

_____
City Clerk

Attachment: LOMR Approval Ordinance [Revision 2] (2408 : MUNICIPAL CODE UPDATE – SECTION 8.12.140 - DUTIES)

APPROVED AS TO FORM:

_____
City Attorney

Attachment: LOMR Approval Ordinance [Revision 2] (2408 : MUNICIPAL CODE UPDATE – SECTION 8.12.140 - DUTIES)

ORDINANCE JURAT

STATE OF CALIFORNIA)

COUNTY OF RIVERSIDE) ss.

CITY OF MORENO VALLEY)

I, Marie Macias, MMC, Interim City Clerk of the City of Moreno Valley, California, do hereby certify that Ordinance No. 919 had its first reading on February 7, 2017 and had its second reading on February 21, 2017 and was duly and regularly adopted by the City Council of the City of Moreno Valley at a regular meeting thereof held on the 21st day of February, 2017, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

(Council Members, Mayor Pro Tem and Mayor)

_____

INTERIM CITY CLERK

(SEAL)

Attachment: LOMR Approval Ordinance [Revision 2] (2408 : MUNICIPAL CODE UPDATE – SECTION 8.12.140 - DUTIES)

Report to City Council

TO:	Mayor and City Council
FROM:	Ahmad R. Ansari, P.E., Public Works Director/City Engineer
AGENDA DATE:	February 7, 2017
TITLE:	PUBLIC HEARING FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM MAIL BALLOT PROCEEDING

RECOMMENDED ACTION

Recommendations: That the City Council:

1. Conduct the Public Hearing and accept public testimony regarding the mail ballot proceeding for In-N-Out Burgers for approval of the National Pollutant Discharge Elimination System (NPDES) maximum commercial/industrial regulatory rate to be applied to the property tax bill.

2. Direct the City Clerk to count the returned NPDES ballot.

3. Verify and accept the results of the mail ballot proceeding as maintained by the City Clerk on the Official Tally Sheet.

4. Receive and file the Official Tally Sheet with the City Clerk's office.

5. If approved, authorize and impose the NPDES maximum commercial/industrial regulatory rate to the Assessor's Parcel Numbers mentioned in this report.

SUMMARY

The action before the City Council is to conduct a Public Hearing for a National Pollutant Discharge Elimination System (NPDES) mail ballot proceeding. The process to accept two parcels into the City's NPDES funding program affects one property owner, not the general citizens or taxpayers of the City.

The City requires property owners of new development projects to mitigate the cost of certain impacts created by the proposed development, such as the cost of complying

with the state and federal NPDES requirements. As a condition of approval, the property owners are required to provide an ongoing funding source to offset those costs. The City offers a funding program to assist property owners in satisfying the funding requirement. After a property owner approves the City's NPDES rate through a mail ballot proceeding, the City can levy the rate on the property tax bill of the authorized parcel(s). Attachment 2 outlines the steps to participate in the City's NPDES funding program.

The revenue generated by this program provides a funding source to monitor pollution control of storm water runoff into municipally owned drainage facilities, lessening the financial impact of compliance with the state and federal requirements on the general taxpayer in Moreno Valley.

In-N-Out Burgers ("Property Owner") is conditionally approved to construct a 1.5 acre paved parking lot and drive-thru extension (southeast corner of Pigeon Pass Rd. and Hemlock Ave.). The Property Owner has requested the City conduct a mail ballot proceeding, which if approved, will satisfy their condition of approval to provide a funding source for the NPDES Program.

DISCUSSION

The Clean Water Act of 1987 established requirements for the discharge of Urban Runoff from Municipal Separate Storm Sewer Systems under the NPDES Program. The Santa Ana Regional Water Quality Control Board administers the NPDES Program through the issuance of a Permit. The NPDES Program requires public agencies to obtain coverage under the Permit to discharge urban storm water runoff from municipally owned drainage facilities, including streets, highways, storm drains, and flood control channels. The City's current NPDES Permit requires all new development projects to comply with storm water management requirements.

As a condition of approval for development projects, the Land Development Division (Public Works Department) requires property owners to provide an ongoing funding source for the NPDES Program. The City Council adopted the NPDES residential regulatory rate on June 10, 2003, and the NPDES commercial/industrial regulatory rate on January 10, 2006. These funds support the increased compliance activities related to the development. They also reduce the financial impact to the General Fund to maintain compliance with the unfunded requirements of the Permit. The City's storm water management activities include annual and periodic facility inspections for site design, NPDES permit compliance, implementation of Best Management Practices and maintenance for specified facilities.

The Property Owner is required to provide an ongoing funding source for the NPDES program as a condition of approval. Detailed information for the property subject to the condition of approval is listed in the following table.

Property Owner/Project	Assessor's Parcel Numbers	Location	FY 2016/17 NPDES Maximum Rate(s)
In-N-Out Burgers PA15-0026	292-250-001 and 292-250-002	southeast corner of Pigeon Pass Rd. and Hemlock Ave.	$232.28/parcel commercial/industrial

The Property Owner has two options to satisfy the condition of approval:

1) Approve the NPDES rate and authorize the City to collect it on the annual Riverside County property tax bill through participation in a mail ballot proceeding; or

2) Fund an endowment.

The Property Owner has decided to have the NPDES rate applied to the annual property tax bill. Before the City can levy the rate onto the annual property tax bill, the Property Owner must first approve it and authorize the City to do so through a mail ballot proceeding. A mail ballot proceeding is a legally required process to approve new charges or an increase to existing charges on property tax bills (Proposition 218). The Property Owner was mailed a notice and ballot to cast their vote (Attachment 1). The notice detailed the purpose and amount of the charge and the potential annual inflationary adjustment. The City is required to provide the Property Owner with 45 days to review the notice and an opportunity to address the City Council. The Property Owner will have an opportunity to address the City Council during the public comment portion of the Public Hearing. The ballot is due to the City Clerk prior to the close of the Public Hearing. At the close of the Public Hearing, the ballot can be opened and counted, and results announced.

Approval of the NPDES rate and authorization to levy it on the annual property tax bill will satisfy the project's condition of approval. In the event the Property Owner does not return their ballot, does not approve the ballot, or returns an invalid ballot (unmarked or unsigned), this condition of approval will remain unsatisfied and may delay occupancy of the project.

This action meets the Strategic Plan Priorities by managing and maximizing Moreno Valley's public infrastructure to ensure an excellent quality of life, develop and implement innovative, cost effective infrastructure maintenance programs, public facilities management strategies, and capital improvement programming and project delivery.

ALTERNATIVES

1. Conduct the Public Hearing and upon its close, count and verify the returned ballot and accept the results. *Staff recommends this alternative as it will satisfy the project's condition of approval if the Property Owner approves their ballot.*

2. Open the Public Hearing and continue it to a future regular City Council meeting. *Staff does not recommend this alternative as it will delay announcement of the ballot results and may delay project development.*

3. Do not conduct the Public Hearing. *Staff does not recommend this alternative as it will delay the Property Owner from satisfying the condition of approval and may delay project development. Additional costs will be incurred to restart the 45-day noticing period.*

4. Do not conduct the Public Hearing at this time but reschedule it to a date certain during a regular City Council meeting. *Staff does not recommend this alternative as it may delay project development and will incur additional costs to restart the 45-day noticing period.*

FISCAL IMPACT

The fiscal year (FY) 2016/17 NPDES maximum commercial/industrial regulatory rate is $232.28 per parcel, and any division thereof. The NPDES maximum regulatory rate for FY 2017/18 and each subsequent FY is subject to an annual inflationary adjustment, provided the City Council approves such increase each year. The annual increase cannot exceed the annual inflationary adjustment without approval of the property owners subject to the charge.

Revenue received from the NPDES rate is restricted and can only be used within the storm water management program. This revenue offsets storm water management program expenses, which reduces financial impacts to the General Fund to maintain compliance with the unfunded requirements of the Permit. The NPDES rate is only applied to the property tax bills of parcels wherein their property owners have previously provided approval.

NOTIFICATION

The ballot documents were mailed to the Property Owner at least 45-days in advance of the Public Hearing. The documents included a notice to the Property Owner, map of the project area, NPDES ballot, NPDES commercial/industrial rate schedule, instructions for marking and returning the ballot, and a postage paid return envelope addressed to the City Clerk.

Newspaper advertising for the February 7, 2017 Public Hearing was published in The Press-Enterprise on January 12, 2017 and again on January 19, 2017.

PREPARATION OF STAFF REPORT

Prepared by:
Jennifer Terry,
Senior Management Analyst

Department Head Approval:
Ahmad R. Ansari, P.E.,
Public Works Director/City Engineer

Concurred by:
Candace E. Cassel,

Concurred by:
Michael Lloyd,

Special Districts Division Manager Land Development Division Manager

CITY COUNCIL GOALS

Advocacy. Develop cooperative intergovernmental relationships and be a forceful advocate of City policies, objectives, and goals to appropriate external governments, agencies and corporations.

Revenue Diversification and Preservation. Develop a variety of City revenue sources and policies to create a stable revenue base and fiscal policies to support essential City services, regardless of economic climate.

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

See the Discussion section above for details of how this action supports the City Council's Strategic Priorities.

ATTACHMENTS

1. In-N-Out Burgers Mail Ballot Documents
2. Flowchart

APPROVALS

Budget Officer Approval	✓ Approved	1/19/17 11:51 AM
City Attorney Approval	✓ Approved	1/25/17 9:41 AM
City Manager Approval	✓ Approved	1/26/17 9:59 AM

TEL: 951.413.3480
FAX: 951.413.3498
WWW.MOVAL.ORG

MORENO VALLEY
WHERE DREAMS SOAR

14331 FREDERICK STREET, SUITE 2
P. O. BOX 88005
MORENO VALLEY, CA 92552-0805

IN-N-OUT BURGERS
Attn: Jennifer Sheu, Real Estate Department
13502 Hamburger Lane
Baldwin Park, CA 91706

December 5, 2016

NOTICE TO PROPERTY OWNER - MAIL BALLOT PROCEEDING FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) MAXIMUM COMMERCIAL/INDUSTRIAL REGULATORY RATE FOR ASSESSOR'S PARCEL NUMBERS 292-250-001 AND 292-250-002

******* OFFICIAL BALLOT ENCLOSED *******

Introduction

In November of 1996, California voters passed Proposition 218 ("The Right to Vote on Taxes Act"). As a result, any new or proposed increase in a property-related charge requires approval by the property owner of record. In compliance with Proposition 218 legislation, the City of Moreno Valley Special Districts Division is conducting a mail ballot proceeding to provide the owner of Assessor's Parcel Numbers (APNs) 292-250-001 and 292-250-002 the opportunity to express support for or opposition to the approval of the NPDES Maximum Commercial/Industrial Regulatory Rate and services. Approval of the NPDES Maximum Commercial/Industrial Regulatory Rate through a mail ballot proceeding fulfills Land Development Division's Condition of Approval LD28 to provide a funding source for the NPDES financial program.

Background

The Clean Water Act of 1987 established requirements for the discharge of Urban Runoff from Municipal Separate Storm Sewer Systems under the National Pollution Discharge Elimination System (NPDES) Program. The NPDES Program is administered by the Santa Ana Regional Water Quality Control Board through the issuance of a Permit. The City's current NPDES Permit mandates all new development projects comply with storm water management activities. The NPDES Program requires public agencies to obtain coverage under the Permit to discharge urban storm water runoff from municipally owned drainage facilities, including streets, highways, storm drains, and flood control channels.

Services Provided

In compliance with the Federal Clean Water Act, the City of Moreno Valley shall provide annual and periodic facility inspections for site design, NPDES permit compliance, and Best Management Practices implementation and maintenance for specified facilities.

Attachment: In-N-Out Burgers Mail Ballot Documents (2393 : PUBLIC HEARING FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION

How is the Amount of the Charge Determined?

Each fiscal year (FY), the City of Moreno Valley determines the type of services necessary to comply with NPDES Permit requirements and levies the rate applicable for that service, not to exceed the rate previously approved by the property owner.

Proposed Charge

For FY 2016/17, the NPDES Maximum Commercial/Industrial Regulatory Rate is $232.28 per parcel. The total amount of the NPDES rates levied for FY 2016/17 for the program as a whole was $460,001.98.

Annual Adjustment

Beginning in FY 2017/18, the NPDES Maximum Commercial/Industrial Regulatory Rate will be subject to an annual adjustment based on the percentage change calculated for the previous year in the Los Angeles-Riverside-Orange County Regional Consumer Price Index for All Urban Consumers, as published by the Department of Labor's Bureau of Labor Statistics.

Duration of the Charge

Upon approval of the NPDES Maximum Commercial/Industrial Regulatory Rate, the annual levy amount will be assessed to APNs 292-250-001 and 292-250-002 (and any division thereof) and shall be placed on the Riverside County property tax bill or included as a monthly charge on a utility bill. The NPDES Maximum Commercial/Industrial Regulatory Rate will be levied each following year at the proposed rate, which includes an annual inflation adjustment.

Public Hearing

To provide information concerning this mail ballot proceeding the City has scheduled a Public Hearing, which will be held at the **Moreno Valley City Hall Council Chamber located at 14177 Frederick Street, Moreno Valley.**

Public Hearing

Tuesday, February 7, 2017
6:00 P.M.
(Or As Soon Thereafter As The Matter May Be Called)

Tabulation of returned ballots will commence after the close of the public testimony portion of the Public Hearing. All ballots received shall be tabulated under the direction of the City Clerk in compliance with the City's Policy For Conducting Mail Ballot Proceedings Policy #1.12.

Effect if the Charge is Approved

Approval of the NPDES Maximum Commercial/Industrial Regulatory Rate will be confirmed if the ballot is marked in favor of the NPDES rate. Approving the NPDES Maximum Commercial/Industrial Regulatory Rate through a mail ballot proceeding will fulfill the Land Development Division's Condition of Approval LD28 to provide an ongoing funding source for the NPDES financial program.

Effect if the Charge is Not Approved

Not approving the NPDES Maximum Commercial/Industrial Regulatory Rate to meet state and federally mandated NPDES Permit requirements will not satisfy the Land Development

Attachment: In-N-Out Burgers Mail Ballot Documents (2393 : PUBLIC HEARING FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION

Division's Condition of Approval LD28 to provide a funding source for the NPDES financial program. If the returned ballot is marked "No", the NPDES rate will not be levied on the property tax bill.

Effect if the Ballot is Deemed Invalid or Incomplete

Not marking the corresponding box on the ballot in support of or opposition to the proposed program and annual rate and/or not signing the ballot will result in an invalid ballot. In order to satisfy the Land Development Division's Condition of Approval LD28 by placement of the NPDES rate on the annual property tax bill, the mail ballot proceeding and 45-day noticing period will need to start over. Reinitiating the process will require payment of the mail ballot proceeding fee.

For More Information

If you have any questions about the mail ballot proceeding process, please contact Jennifer Terry, Senior Management Analyst, with the City's Special Districts Division at 951.413.3505 or via email at JenniferT@moval.org during the City's business hours.

Questions regarding the NPDES financial program, the annual rate, or the Land Development Division's Conditions of Approval should be directed to the Land Development Division at 951.413.3120 or via email at landdevelopment@moval.org during the City's business hours.

The City's business hours are Monday through Thursday from 7:30 a.m. to 5:30 p.m. and Friday from 7:30 a.m. to 4:30 p.m.

Completing Your Ballot

Please follow the instructions below to complete and return your ballot. Procedures for the completion, return, and tabulation of the ballot are also on file in the City Clerk's office.

1. Mark the enclosed ballot in support of or opposition to the proposed program and annual rate **by placing a mark in the corresponding box.** Ballots received without a designated vote will be considered invalid.
2. Sign your name on the ballot. Ballots received without signature(s) will be considered invalid *and will not be counted.*
3. Mail or personally deliver your completed ballot in a sealed envelope to the City Clerk's office, 14177 Frederick Street, Moreno Valley, California, 92553. For your convenience, a postage-paid envelope has been included for return of the ballot.
4. Ballot(s) must be **received** by the City Clerk prior to the close of the public testimony portion of the Public Hearing scheduled for **Tuesday, February 7, 2017**, at the Moreno Valley City Hall Council Chamber. The Public Hearing will be held at 6:00 p.m. or as soon thereafter as the matter may be called. Ballots received after the close of the Public Hearing cannot be legally counted.

Ballot Marks

Appropriate ballot markings include any one of the following for either the YES/Approved or NO/Not Approved blank box:

Attachment: In-N-Out Burgers Mail Ballot Documents (2393 : PUBLIC HEARING FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION



A check mark substantially inside a box;



An X mark substantially inside a box;



A dot or oval mark substantially inside a box;



A completely shaded or filled mark substantially inside a box;



A line, single or dashed, or combination of lines, through the box area. Lines may be any one of the following marks: horizontal, vertical, or diagonal. The mark may either run from side to side or corner to corner. All valid lines must be substantially within the box area and not marking any part of another blank box on the ballot;



A circle around the box and/or associated clause; or

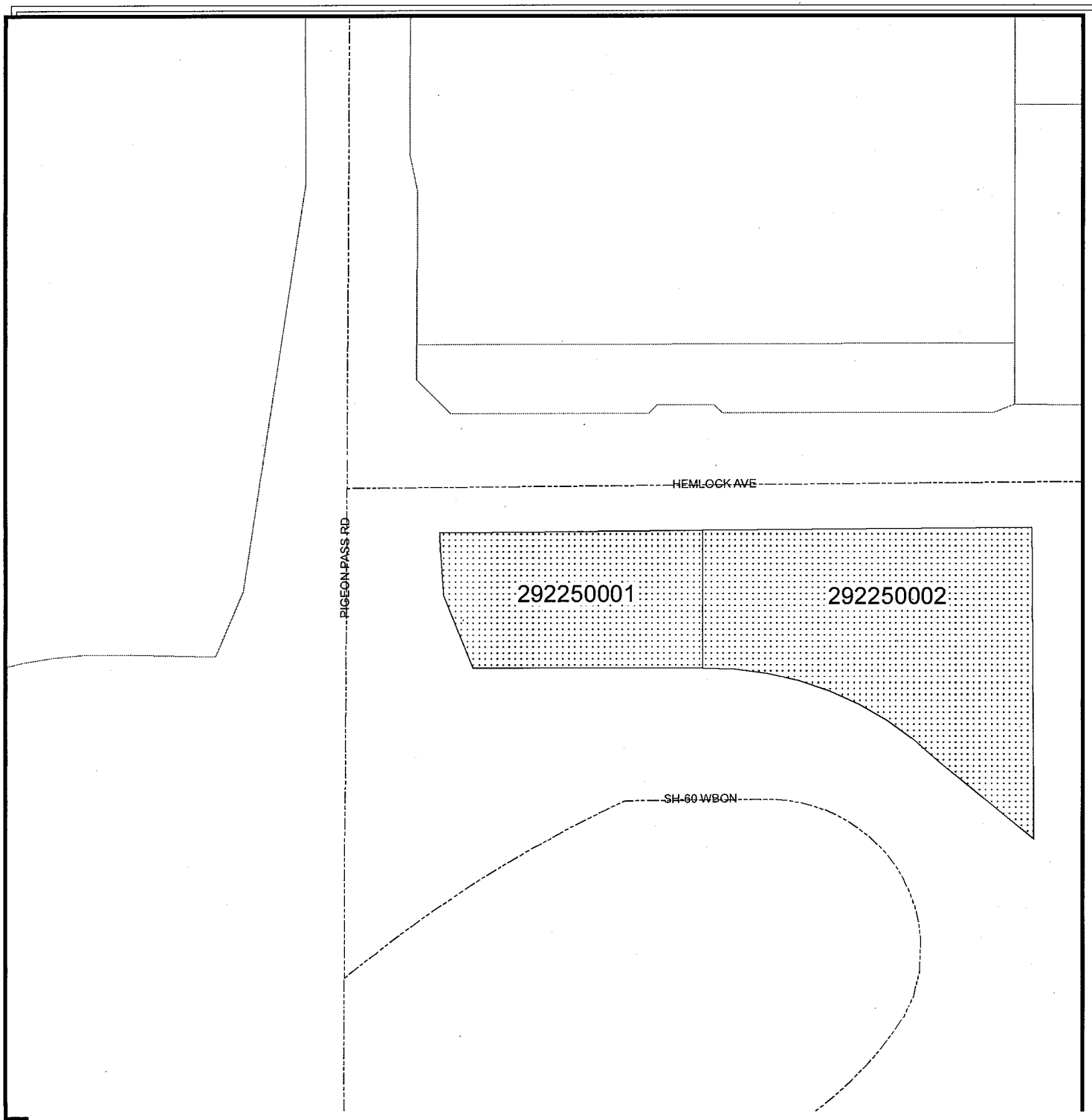


A square or rectangle around the box and/or associated clause.

Balloting marks shall not extend past one box area into any portion of another nor surround the perimeter or any portion of more than one box area. Markings that extend past one box area into any portion of another or surround the perimeter or any portion of more than one box area shall be considered invalid and not counted.

Ballot Mark Revisions (Changes): An error or desire to revise (change) a selection made on the ballot may be completed and returned any time **prior** to the conclusion of public testimony at the Public Hearing. **The revision must be initialed by the record owner(s) of property. Initials must be clearly printed and placed at the right top corner of the revised selection**.

Attachment: In-N-Out Burgers Mail Ballot Documents (2393 : PUBLIC HEARING FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION



IN-N-OUT BURGERS
PA15-0026

292250001

292250002

Parcels

City Boundary

Roads

Map reflects all changes indicated on Riverside County Assessor Maps as of November 29, 2016.

N

0 50 100 150 200 Feet

G:\AVP\SDA\IN N OUT PA15-0026.mxd

The information shown on this map was compiled from the Riverside County GIS and the City of Moreno Valley GIS. The land base and facility information on this map is for display purposes only and should not be relied upon without independent verification as to its accuracy. Data and information on this map is subject to update and modification. Riverside County and City of Moreno Valley will not be held responsible for any claims, losses or damages resulting from the use of this map. This map is not to be recopied or resold.

MORENO VALLEY
WHERE DREAMS SOAR

COMMON INTEREST, COMMERCIAL, INDUSTRIAL AND QUASI-PUBLIC USE NPDES RATE SCHEDULE
Adopted by the City Council on January 10, 2006

LEVEL 1	LEVEL II
NPDES Administration	**Site Design, Source Control and Treatment Control BMPs Monitoring and Maintenance**
(Not covered by CSA 152) Costs associated with personnel, administration and management of the storm water management program. Administrative tasks include development and filing of various stormwater reports and data collection and management. Level I is levied on all parcels conditioned for the NPDES Rate Schedule.	Costs associated with stormwater and non-stormwater runoff monitoring, inspection of the project's site design, source control and treatment control BMPs; evaluation of site stormwater compliance activities, review of site-specific technical reports and treatment control BMP maintenance records.

Fiscal Year (FY) 2005/2006 - Base Year Calculation, subject to an annual inflation factor based on the Los Angeles-Riverside-Orange County Regional Consumer Price Index for All Urban Consumers, as published by the Department of Labor's Bureau of Labor Statistics

	Per Month	Per Year		Per Month	Per Year
PARCEL RATE	$3.39	$40.62	PARCEL RATE	$15.97	$191.66

Inflation Factor Adjustments

FY 2006/2007 - 4.5% = ($33.00 & $158.00)
FY 2007/2008 - 3.1% = ($34.00 & $163.00)
FY 2008/2009 - 4.2% = ($35.00 & $170.00)
FY 2009/2010 - no change = ($35.00 & $170.00)
FY 2010/2011 - no change = ($35.00 & $170.00)
FY 2011/2012 - 3.8% = ($36.00 & $176.00)
FY 2012/2013 - 2.7% = ($37.00 & $181.00)
FY 2013/2014 - 2.0% = ($38.00 & $185.00) rounded to the nearest dollar
FY 2014/2015 - 1.14% = ($39.52 & $186.49) Pursuant to City Council approval on June 10, 2014.
FY 2015/2016 - 0.73% = ($39.81 & $187.85)
FY 2016/2017 - 2.03% = ($40.62 & $191.66)

OFFICIAL MAIL BALLOT for Assessor's Parcel Numbers (APNs) 292-250-001 and 292-250-002
National Pollutant Discharge Elimination System (NPDES) Maximum Commercial/Industrial Regulatory Rate

YES* — as property owner of APNs 292-250-001 and 292-250-002, **I approve** the NPDES Maximum Commercial/Industrial Regulatory Rate and services. For fiscal year (FY) 2016/17, the NPDES Maximum Commercial/Industrial Regulatory Rate is $232.28 per parcel. Upon approval of the maximum regulatory rate, the annual levy amount shall be placed on the annual Riverside County property tax bill or included as a monthly charge on a utility bill. Beginning FY 2017/18, the maximum regulatory rate will be subject to an annual adjustment based on the percentage change calculated for the previous year in the Los Angeles-Riverside-Orange County Regional Consumer Price Index for All Urban Consumers, as published by the Department of Labor's Bureau of Labor Statistics. The City shall provide annual and periodic facility inspections for site design, NPDES permit compliance, and Best Management Practices implementation and maintenance for specified facilities.

NO** — as property owner of APNs 292-250-001 and 292-250-002, **I do not approve** the NPDES Maximum Commercial/Industrial Regulatory Rate and services. I understand that not approving the NPDES Maximum Commercial/Industrial Regulatory Rate to fund state and federally mandated NPDES Permit requirements will not satisfy the project's Conditions of Approval. The NPDES maximum commercial/industrial regulatory rate will not be levied on the annual Riverside County property tax bill.

YES*	NO**	Weighted Ballot Count*	Fiscal Year 2016/17 NPDES Maximum Commercial/Industrial Regulatory Rate per Parcel
☐	☐	2	$232.28

*Each Assessor's Parcel Number equals 1 Weighted Ballot.

This ballot must be received by the City Clerk of the City of Moreno Valley prior to the close of the public testimony portion of the Public Hearing to be held on February 7, 2017, at the Moreno Valley City Hall Council Chamber, 14177 Frederick Street, Moreno Valley, California. The Public Hearing will be held at 6:00 p.m. or as soon thereafter as the matter may be called.

_____

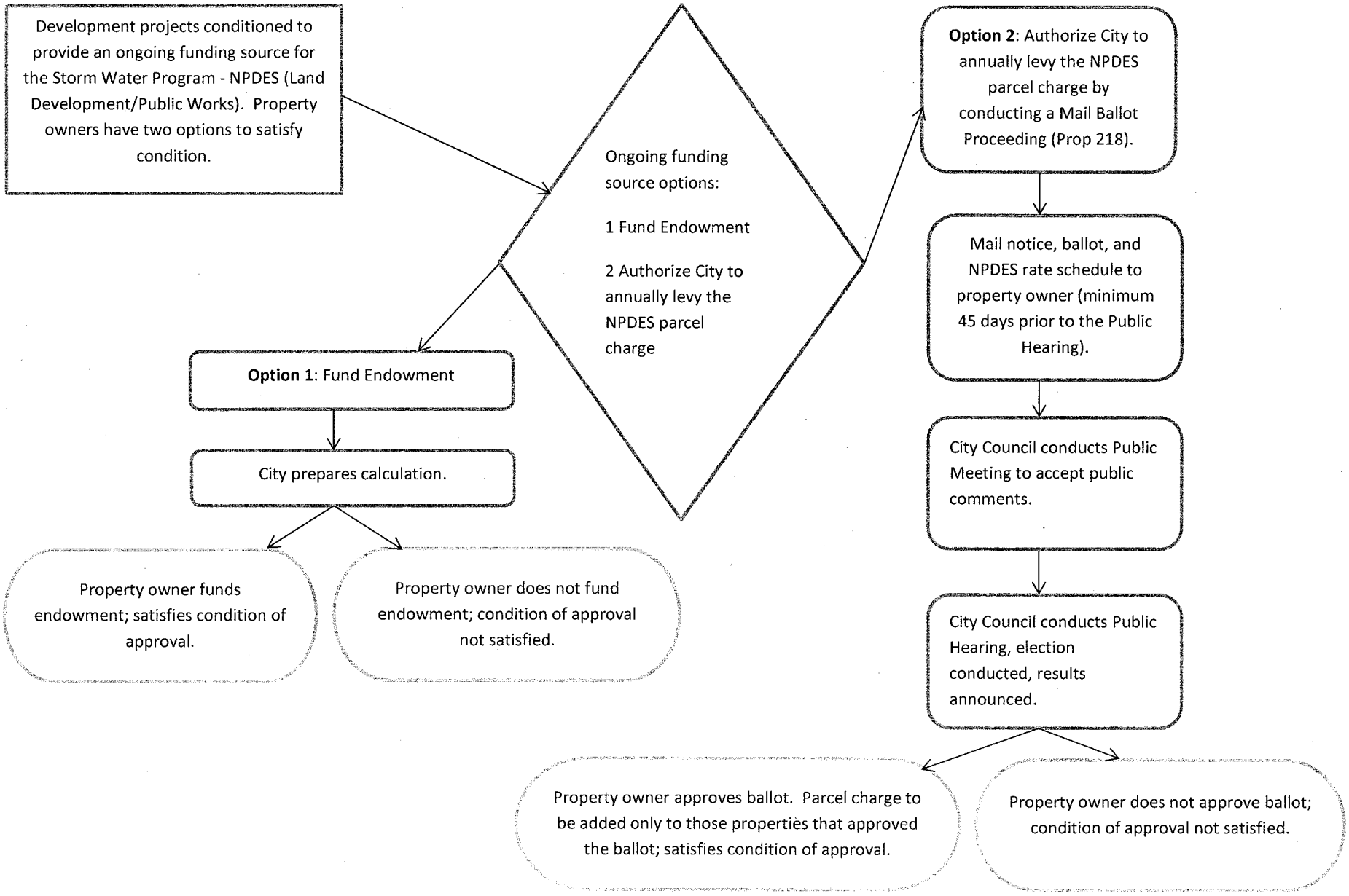
PROPERTY OWNER SIGNATURE DATE

Please remember to mark the appropriate box, sign and date the ballot, and return to the City Clerk's office in the enclosed envelope prior to the close of the public testimony portion of the February 7, 2017 Public Hearing.

Ballot(s) deemed invalid or incomplete will be discarded and a new process must be initiated in order to place the charge on the annual Riverside County property tax bill, which includes payment of the mail ballot fee.

Attachment: In-N-Out Burgers Mail Ballot Documents (2393 : PUBLIC HEARING FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION

Process Flow for Property Owners/Developers to Satisfy Funding Requirement for the Storm Water Program



This process flow is simplified for illustration purposes. Contact the Special Districts Division at 951.413.3480 for the detailed process.

November 12, 2014

Attachment: Flowchart (2393 : PUBLIC HEARING FOR THE NATIONAL POLLUTANT DISCHARGE

Report to City Council

TO:	Mayor and City Council
FROM:	Marshall Eyerman, Chief Financial Officer Michelle Dawson, City Manager
AGENDA DATE:	February 7, 2017
TITLE:	APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST QUARTER BUDGET AMENDMENTS, AND OPERATING AND CAPITAL CARRYOVERS FROM FISCAL YEAR 2015/16

RECOMMENDED ACTION

Recommendations: That the City Council:

1. Receive and file the Fiscal Year 2016/17 First Quarter Budget Review. (Attachment 1)

2. Adopt Resolution No. 2017-09. A resolution of the City Council of the City of Moreno Valley, California, adopting the revised operating budgets for fiscal year 2016/17.

3. Approve the creation of a new Senior Management Analyst position to support the Economic Development Department.

4. Approve the reactivation of the unfunded Deputy City Attorney position to support the City Attorney's Office.

5. Approve the elimination of the vacant Senior Engineer, P.E. within Transportation Division.

6. Approve the Position Control Roster. Specific positions are discussed within this staff report and listed on Attachment 9 to this staff report.

Recommendations: That the CSD:

1. Adopt Resolution No. CSD 2017-01. A resolution of the Moreno Valley Community Services District of the City of Moreno Valley, California, adopting the revised operating and capital budgets for Fiscal Year (FY) 2016/17.

Recommendations: That the HA:

1. Adopt Resolution No. HA 2017-02. A resolution of the Moreno Valley Housing Authority of the City of Moreno Valley, California, adopting the revised operating and capital budgets for Fiscal Year (FY) 2016/17.

Recommendations: That the SA:

1. Adopt Resolution No. SA 2017-01. A resolution of the Moreno Valley Successor Agency to the Community Redevelopment Agency of the City of Moreno Valley, California, adopting the revised operating and capital budgets for Fiscal Year (FY) 2016/17.

SUMMARY

This report provides the First Quarter Budget Report which updates the Mayor and City Council regarding current year financial trends and provides the Fiscal Year 2016/17 First Quarter Budget Review through September 30, 2016.

This report also requests the approval of certain FY 2016/17 revenue and expenditure budget amendments along with requests for approval of the carryover of certain FY 2015/16 revenue and expenditure appropriations as previously approved by City Council. At the end of FY 2015/16, all unexpended appropriations lapse and revert to fund balance. Once the fiscal year-end closing process has identified the items that are encumbered by purchase order, contract, or other commitment at June 30th, these items may be presented to Council for approval as continuing appropriations in the new fiscal year (FY 2016/17). Approval of continuing appropriations is a long-standing and annual recurring budgetary procedure of the City.

DISCUSSION

On June 23, 2015, the City Council adopted the Two-Year Operating Budget for Fiscal Years 2015/16 – 2016/17. The budget included all component units of the City, including the General Fund, Community Services District, Housing Authority and Successor Agency. During the two-year budget period, the City Council will be kept informed of the City's financial condition through the process of First Quarter and Mid-Year Budget Reviews. This ongoing process ensures a forum to review expenditure and revenue changes from the estimates made in the budget document. Additionally, any significant changes in projected revenue or unanticipated expenditures will be shared with the City Council should they occur. This report provides the FY 2016/17 First Quarter Review for the first three months of FY 2016/17, July through September. The first quarter budget review will focus primarily on the City's General Fund. This review will also present three-month operational results from other key funds.

As the prior fiscal year closes, certain budget activities and projects remain in process and have not yet been completed. Staff routinely reviews these items during the annual process to close the books and returns to City Council with a request to approve the carryover of budgets for projects still in process as a continuing appropriation. Encumbrances, which are commitments related to contracts for goods and services that are in process and not yet completed, are included in the continuing appropriations request. These carryover requests are included within this report.

The City Council's direction of "Maintain a Balanced General Fund Budget" continues to be the goal regarding the fiscal status of City operations. Changes were considered where necessary to adjust for expenditure needs that could not be absorbed within current approved appropriations and to correct some one-time requirements in some funds. This report identifies the budget adjustments as recommended by the City Manager.

FISCAL YEAR 2016/17 FIRST QUARTER REVIEW:

This First Quarter Report updates the Mayor and City Council regarding current year financial trends and provides the opportunity for the City Council to review the recommended actions as they relate to revenues and expenditures.

General Fund Revenue Update

Revenue receipts do not follow an even schedule. Although 25% of the fiscal year has elapsed, based on historic trends revenues are estimated to be at approximately 10% of the budgeted amount. Actual revenues received are currently 10% of budget. Revenue amounts continue to be stable. Although there will be variances in some of the amounts budgeted, the total is expected to remain within 1% of the amended budget for the year. Total General Fund revenue is estimated to be $97.4 million. It should be noted that the lag in timing of revenue receipts is one reason an operating cash reserve is necessary.

General Fund Expenditure Update

Although not all expenditures follow a straight-line spending pattern, operating expenditures should track close to within 25% of budget for the year at the end of the first three months. As of September 30, 2016 total General Fund expenditures were at 24%. This pace is within expectations for most activities in the General Fund.

FISCAL YEAR 2016/17 BUDGET ADJUSTMENTS

Based on economic activity and revenue collections through September 2016, staff is not anticipating that total revenues will produce any significant increases over the amounts originally budgeted. Although there are some increases noted by revised estimates, there are offsetting adjustments that negate these impacts. The increase to the FY 2016/17 General Fund revenues is $219,061 to approximately $95.6 million as

presented on Exhibit A. This is primarily due to adjustments to the Property Tax In-Lieu VLF revenue projections.

The FY 2016/17 General Fund expenditures budget, as currently amended, totals approximately $95.0 million. The recommended first quarter budget changes increase expenditures by $30,842 to $95 million. The fund continues to be structurally balanced, without the use of fund balance. The specific budget adjustments for the General Fund are summarized in Exhibit A attached to the City Council Resolution recommended for approval.

Fund	Type (Rev/Exp)	FY 16/17 Budget	Proposed Adjustments ($)	Proposed Adjustments (%)	FY 16/17 Amended Budget (1)
General Fund	Rev	$95,403,458	$219,061	<1%	$95,622,519
General Fund	Exp	$94,992,940	$30,842	<1%	$95,023,782

(1) Does not reflect any proposed carryovers.

Position Control Action

The Position Control Roster as amended by the City Council serves as an important internal control tool for City Council to establish authorized positions for the City while enabling staff to manage within the authorized and funded approved positions. Position Control addresses career authorized positions and does not include temporary positions. As a result of operational changes an additional position is being requested based on current and projected demands for this position.

Staff recommends updating the Position Control Roster to reflect the addition of a Senior Management Analyst (C27 $75,322 - $106,048) position to the Economic Development Department. This adjustment will allow for increased services and focused efforts, aligning with the City's Strategic Plan. This position will support business attraction, marketing efforts, business support services and small business development.

Staff also recommends reactivating an existing Deputy City Attorney (C31 $91,554 – $128,902) job classification, which is currently an unfunded position in the City Attorney's office. This would result in long term costs savings realized by decreasing outside counsel billing, while providing a wider range of legal services on an in-house basis. The reactivated Deputy City Attorney position would be primarily tasked with handling code enforcement litigation and assisting in contract review. It is expected that portion of the cost of the position would be recovered through fines and Court awards of costs and attorney's fees. Reactivation of the position would also provide greater capacity to both, City Attorney and Assistant City Attorney to handle some of the more complex matters and expand the breadth of in-house legal services.

Staff is recommending the defunding of the vacant Senior Engineer, P.E. position in the Transportation Division. The reduction of the budget will match predicted actuals.

The following table provides a summary of all position changes:

Department / Position Title		FY 2016/17 Adj.	Budget Impacts
Economic Development Department			
Senior Management Analyst	FT	1	$124,564
City Attorney			
Deputy City Attorney	FT	1	$75,000 (1)
Transportation			
Senior Engineer, P.E.	FT	1	($170,000)

(1) The full cost is estimated $165,000. A portion of funding shall be available for this position through savings on contract legal services.

Summaries of Other Major Funds

The following provides a summary of some of the proposed budget adjustments to other major funds. A complete list of all changes is identified in Exhibit A to the Resolutions.

Gas Tax (Fund 2000)

There is a budget adjustment recommended for the first quarter that decreases expenditures by $358,213 due to updated projected annual expenditures and a reduction in staffing. Revenue is increasing by $48,206 based on the updated revenue projections provided by the State.

Measure A (Fund 2001)

There is a budget adjustment recommended for the first quarter that increases expenditures by $218,000 for FY 2016/17 due to requested design changes from the residents for the Reche Vista Realignment project. The costs are primarily for construction engineering, inspection, and project administration related to the said design changes and additional work.

Special Districts (Funds 2050, 5013, 5110, 5112, 5114)

There is a budget adjustment recommended for the first quarter that decreases revenue by $100,559 for FY 2016/17 due to an adjustment to the parcel charge revenue to match applied fixed charges with Riverside County.

LMD 2014-01 (Fund 5014)

There is a budget adjustment recommended for the first quarter that increases expenditures by $99,516 for FY 2016/17 to establish a budget for Zone 9 expenses. Zone 9 consists of perimeter landscaping on the south side of Fir Street, the north side

of Eucalyptus Avenue and the east side of Morrison Street.

FISCAL YEARS 2016/17 CARRYOVER ADJUSMENT:

As the prior fiscal year closes, certain budget activities and projects remain in process and have not yet been completed. Staff routinely reviews these items during the annual process to close the books and returns to City Council with a request to approve the carryover of budgets for projects still in process as a continuing appropriation. Encumbrances, which are commitments related to contracts for goods and services that are in process and not yet completed, are included in the continuing appropriations request. The requested carryovers are summarized in Exhibits B & C attached. The following provides a summary of the impacts.

	FY 2016/17 Carryover Adjustment (1,2)
General Fund	
Revenues	$1,860,909
Expenditures	$2,393,124
Non-General Funds	
Revenues	$470,837
Expenditures	$3,934,580
Capital Project Expenditures	
Non-General Funds	$570,721
General Funds	$42,410

(1) Expenditures approved in FY 2015/16 by Council but not spent will revert back to fund balance at year end. The carryover of these expenditures will utilize these fund balances.

(2) As part of the prior CIP adoption process some carryovers were previously approved. The revenues for these projects will continue to be recognized through the current proposed carryovers.

Exhibits B and C to the Resolution provides the details of staff's request for continuing appropriations for the FY 2016/17 Budget for operating and capital expenses.

ALTERNATIVES

1. Recommend approval of proposed Recommended Actions as set forth in this staff report, including the approval of the proposed resolutions adopting the carryover appropriations and budget adjustments to the FY 2016/17 operating and capital budgets, as presented in Exhibits A, B and C. The approval of these items will allow for ongoing activities to be carried out in the current fiscal year as previously approved in FY 2015/16 and the City is able to modify budgets and operations as necessary through this quarterly review. *Staff recommends this alternative.*

2. Do not recommend approval of proposed Recommended Actions as set forth in this staff report, including the resolutions adopting the carryover appropriations and budget adjustments to the FY 2016/17 operating and capital budgets, as presented in Exhibits A, B and C; or recommended actions. *Staff does not recommend this alternative.*

FISCAL IMPACT

The City's Operating and Capital Budgets provide the funding and expenditure plan for all funds. As such, they serve as the City's financial plan for the fiscal year. The fiscal impacts for the proposed budget amendments and carryovers are identified in Exhibits A, B and C to the Resolutions.

NOTIFICATION

Publication of the agenda.

PREPARATION OF STAFF REPORT

Prepared By:
Stephanie Cuff
Management Analyst

Department Head Approval:
Marshall Eyerman
Chief Financial Officer/City Treasurer

CITY COUNCIL GOALS

Revenue Diversification and Preservation. Develop a variety of City revenue sources and policies to create a stable revenue base and fiscal policies to support essential City services, regardless of economic climate.

Public Facilities and Capital Projects. Ensure that needed public facilities, roadway improvements, and other infrastructure improvements are constructed and maintained.

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

Objective 1.1: Proactively attract high-quality businesses.

Objective 1.2: Market all the opportunities for quality industrial development in Moreno Valley by promoting all high-profile industrial and business projects that set the City apart from others.

Objective 1.8: Evaluate staff resources and dedicate City funding to invest in aggressive Economic Development activities that will result in increased revenues to the City, additional employment opportunities, and enhanced quality of life for our residents.

Objective 1.9: Ensure the City's General Plan articulates the vision for how Moreno Valley wants to evolve over time, and provides an orderly and predictable process through which this vision is developed and implemented, including new attention to economic development, sustainability, public health, and innovation.

Objective 6.2: Improve health, wellness and fitness for Moreno Valley youth through recreation and sports programs.

ATTACHMENTS

1. FY 2016-17 First Qrtr Financial Rep
2. City Resolution 2017-09
3. Exhibit A - Amendments
4. Exhibit B - Carryover
5. Exhibit C - CIP Carryover
6. CSD Resolution 2017-01
7. Housing Resolution 2017-02
8. SA Resolution 2017-01
9. Position Control Roster 16-17
10. Sr Management Analyst
11. Deputy City Attorney

APPROVALS

Budget Officer Approval	✓ Approved	1/19/17 1:06 PM
City Attorney Approval	✓ Approved	1/25/17 12:31 PM
City Manager Approval	✓ Approved	1/26/17 1:20 PM

Attachment: FY 2016-17 First Qtr Financial Rep (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

City of Moreno Valley
Fiscal Year 2016/17
First Quarter Financial Summary

TO: Mayor and City Council

FROM: Marshall Eyerman, Chief Financial Officer/City Treasurer

DATE: February 7, 2017

INTRODUCTION

On June 23, 2015, the City Council adopted the Two-Year Operating Budget for Fiscal Years (FY) 2015/16 – 2016/17. During the two-year budget period the City Council will be kept apprised of the City's financial condition through the process of First Quarter, Mid-Year Budget and Third Quarter Reviews. This ongoing process ensures a forum to look at expenditure and revenue deviations from the estimates made in the budget document. Additionally, any significant variances in projected revenue or unanticipated expenditures will be shared with the City Council should they occur.

This report provides a review of the unaudited financial results at the first quarter of FY 2016/17 (July 2016 – September 2016, 25% of the fiscal year).

CITYWIDE OPERATING EXPENDITURE SUMMARY

The following table contains a summary of the adopted budget, amended budget and the First Quarter expenditures. The totals represent each major fund type and component unit of the City.

Table 1. Citywide Operating Expenditures

Fund/Component Unit	FY 2016/17 Adopted Budget	FY 2016/17 Amended Budget	Actuals as of 9/30/16 (unaudited)	% of Amended Budget
General Fund	$ 94,411,033	$ 94,989,877	$ 22,752,020	24.0%
Community Services District (CSD)	$ 15,644,223	$ 15,650,569	$ 3,264,022	20.9%
Successor Agency	$ 5,395,517	$ 5,389,517	$ 1,293,193	24.0%
Housing Fund	$ 72,000	$ 72,000	$ 24,318	33.8%
Special Revenue Funds	$ 27,188,046	$ 47,384,435	$ 5,578,504	11.8%
Capital Projects Funds	$ 2,410,500	$ 12,962,959	$ 1,820,133	14.0%
Electric Utility Funds	$ 23,549,201	$ 39,491,364	$ 3,740,450	9.5%
Internal Service Funds	$ 11,915,579	$ 12,301,652	$ 2,995,833	24.4%
Debt Service Funds	$ 6,670,800	$ 6,670,800	$ 47,126	0.7%
Total	**$ 187,256,899**	**$ 234,913,173**	**$ 41,515,600**	**17.7%**

Actions taken by the City Council subsequent to the June 23, 2015 adoption of the two-year budget and included in the Amended Budget are:

- On May 26, 2015, the City Council approved the Capital Improvement Plan including approx. $29.3 million ($24,000 General Fund) of one-time carryovers from FY 2014/15.
- On September 22, 2015, the City Council approved the first phase of the City's El Niño Storm Preparation Strategy and the expenditure of $325,000 for preparation and response.
- On October 13, 2015, the City Council approved the appropriation of $200,000 for planning and design efforts of the Hubbard Street Storm Drain to fast track the project. These funds will be reimbursed by the Riverside County Flood Control and Water Conservation District.
- On November 10, 2015, the City Council approved one-time carryovers from FY 2014/15 with a net impact to the General Fund of $389,734.
- Throughout the fiscal year there are also budget amendments to reflect the acceptance of grants and adjustments to contractual services and material/supplies. The individual amendments are reviewed as part of separate City Council agenda items.

The majority of this first quarter update will focus on the General Fund, as it supports all basic services provided to City residents. Highlights for other key component funds will be discussed at a summary level as well.

Attachment: FY 2016-17 First Qrtr Financial Rep (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

GENERAL FUND OPERATING

Table 2. General Fund Operations

	FY 2016/17 Adopted Budget	FY 2016/17 Amended Budget	Actuals as of 9/30/2016 (unaudited)	% of Amended Budget
Revenues:				
Taxes:				
Property Tax	$ 12,736,197	$ 12,736,197	$ 474,356	3.7%
Property Tax in-lieu	$ 16,597,580	$ 16,597,580	$ -	0.0%
Utility Users Tax	$ 16,092,542	$ 16,092,542	$ 3,064,147	19.0%
Sales Tax	$ 20,486,866	$ 20,486,866	$ 1,506,771	7.4%
Other Taxes	$ 9,452,668	$ 9,452,668	$ 827,894	8.8%
Licenses & Permits	$ 2,126,877	$ 2,096,377	$ 703,943	33.6%
Intergovernmental	$ 215,000	$ 215,000	$ 109,138	50.8%
Charges for Services	$ 10,971,363	$ 11,026,143	$ 2,434,926	22.1%
Use of Money & Property	$ 3,469,962	$ 3,469,962	$ (854,755)	-24.6%
Fines & Forfeitures	$ 629,073	$ 629,073	$ 98,620	15.7%
Miscellaneous	$ 103,400	$ 53,400	$ 28,740	53.8%
Total Revenues	**$ 92,881,528**	**$ 92,855,808**	**$ 8,393,780**	**9.0%**
Expenditures:				
Personnel Services	$ 17,007,883	$ 17,137,428	$ 4,152,175	24.2%
Contractual Services	$ 64,934,778	$ 65,176,678	$ 16,088,428	24.7%
Material & Supplies	$ 3,569,633	$ 3,569,633	$ 258,982	7.3%
Fixed Charges	$ 5,603,063	$ 5,603,063	$ 1,395,071	24.9%
Fixed Assets	$ 50,000	$ 255,100	$ 45,370	17.8%
Total Expenditures	**$ 91,165,357**	**$ 91,741,902**	**$ 21,940,026**	**23.9%**
Excess (Deficiency) of Revenues Over (Under) Expenditures	$ 1,716,171	$ 1,113,906	$ (13,546,247)	
Transfers:				
Transfers In	$ 2,547,650	$ 2,547,650	$ 636,912	25.0%
Transfers Out	$ 3,245,676	$ 3,247,975	$ 811,994	25.0%
Net Transfers	**$ (698,026)**	**$ (700,325)**	**$ (175,082)**	
Total Revenues & Transfers In	$ 95,429,178	$ 95,403,458	$ 9,030,692	9.5%
Total Expenditures & Transfers Out	$ 94,411,033	$ 94,989,877	$ 22,752,020	24.0%
Net Change of Fund Balance	**$ 1,018,145**	**$ 413,581**	**$ (13,721,329)**	

Attachment: FY 2016-17 First Qrtr Financial Rep (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

General Fund Operating Revenues

The General Fund is comprised of several revenue types. However, the main sources include property tax, utility users tax, and sales tax. Each of these is affected by different economic activity cycles and pressures.

Table 3. General Fund Operating Revenues

	FY 2016/17 Adopted Budget	FY 2016/17 Amended Budget	Actuals as of 9/30/2016 (unaudited)	% of Amended Budget
Revenues:				
Taxes:				
Property Tax	$ 12,736,197	$ 12,736,197	$ 474,356	3.7%
Property Tax in-lieu	$ 16,597,580	$ 16,597,580	$ -	0.0%
Utility Users Tax	$ 16,092,542	$ 16,092,542	$ 3,064,147	19.0%
Sales Tax	$ 20,486,866	$ 20,486,866	$ 1,506,771	7.4%
Other Taxes	$ 9,452,668	$ 9,452,668	$ 827,894	8.8%
Licenses & Permits	$ 2,126,877	$ 2,096,377	$ 703,943	33.6%
Intergovernmental	$ 215,000	$ 215,000	$ 109,138	50.8%
Charges for Services	$ 10,971,363	$ 11,026,143	$ 2,434,926	22.1%
Use of Money & Property	$ 3,469,962	$ 3,469,962	$ (854,755)	-24.6%
Fines & Forfeitures	$ 629,073	$ 629,073	$ 98,620	15.7%
Miscellaneous	$ 103,400	$ 53,400	$ 28,740	53.8%
Total Revenues	**$ 92,881,528**	**$ 92,855,808**	**$ 8,393,780**	**9.0%**

Property Taxes/Property Taxes In-Lieu

Property taxes were budgeted to increase by 5.2% from the FY 2015/16 Amended Budget. The annual schedule of property tax payments from the County of Riverside will provide payments to the City based on the following estimated schedule:

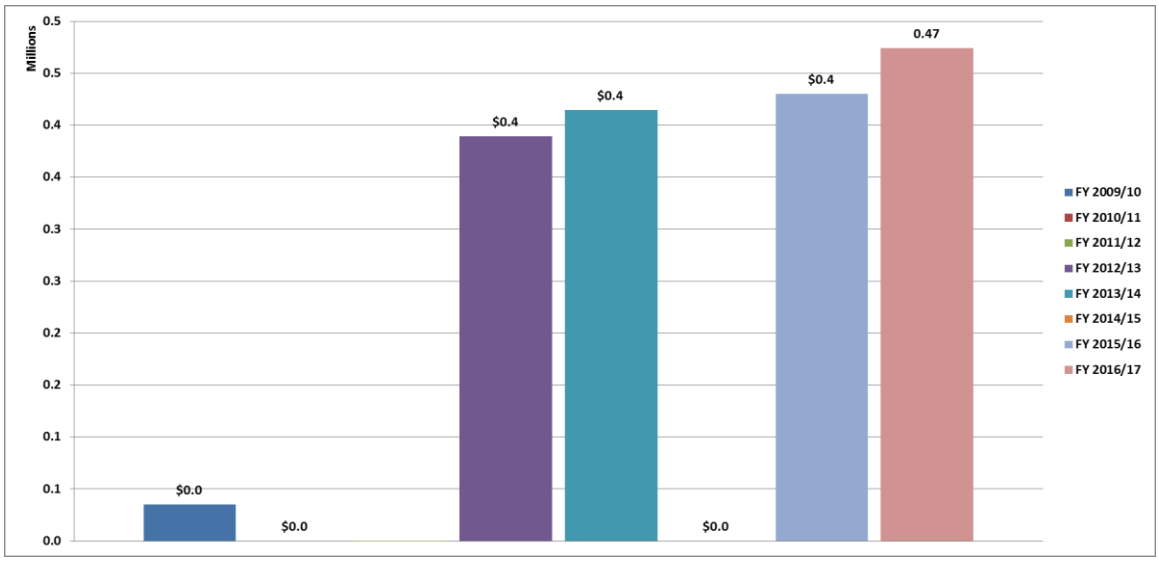
Secured Property Tax Payment Dates

Settlement 1	January
Settlement 2	May
Settlement 3	August
Teeter Settlement	October

Based on historical averages of actual receipts, the City is estimated to receive 1% of the budgeted property tax revenue through first quarter. The City has currently received 2% through first quarter. Property taxes will continue to be monitored as property valuations may adjust through the year based on property sales and assessment appeals filed with the County.

Attachment: FY 2016-17 First Qtr Financial Rep (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

Chart 1. General Fund First Quarter Revenue Trend – Property Taxes



Note: FYs 2010/11, 2011/12 and 2014/15 did not receive any property tax revenues in the first quarter.

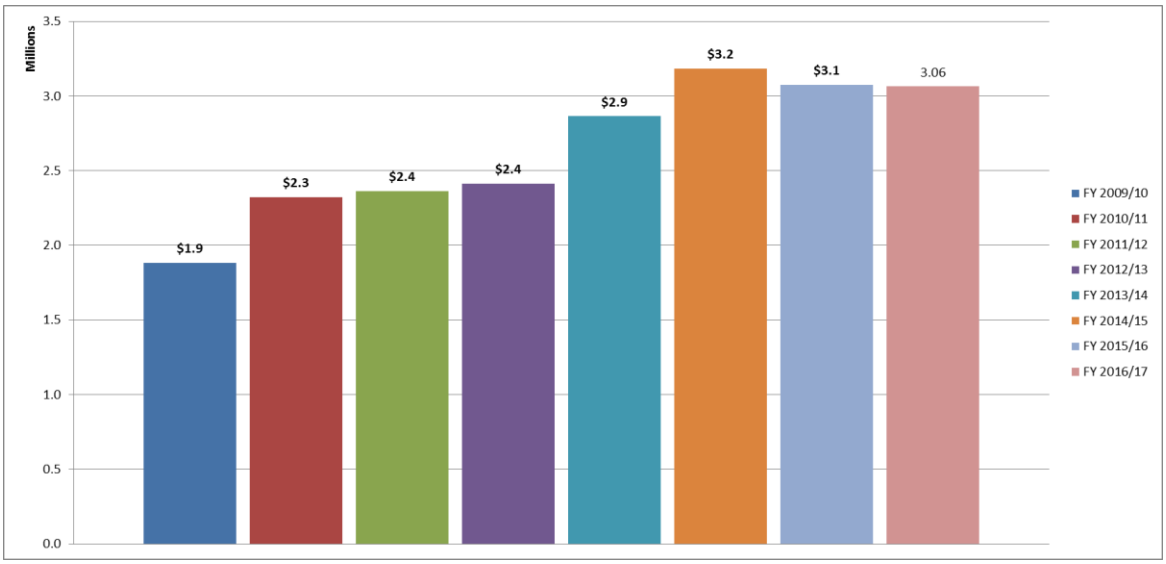
Utility Users Tax

Utility Users taxes were budgeted to remain flat from the FY 2015/16 Amended Budget. This projection is primarily due to competitive forces within the communications markets. Both the wireless and wired markets experienced downturns year over year. Based on our discussions with utility tax experts, there are a couple of causes for this trend. First is competition and bundling practices within the market as more small players continue to join the market. Second is the migration of customers from contract plans to prepaid plans. Currently there is no method within the State to capture UUT related to prepaid wireless plans. There is currently legislation in Sacramento trying to address this and close that gap.

Based on historical averages of actual receipts, the City is estimated to receive 17% of the budgeted utility users tax revenue through first quarter. The City has currently received 19% through first quarter.

Attachment: FY 2016-17 First Qtr Financial Rep (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

Chart 2. General Fund First Quarter Revenue Trend – Utility Users Taxes

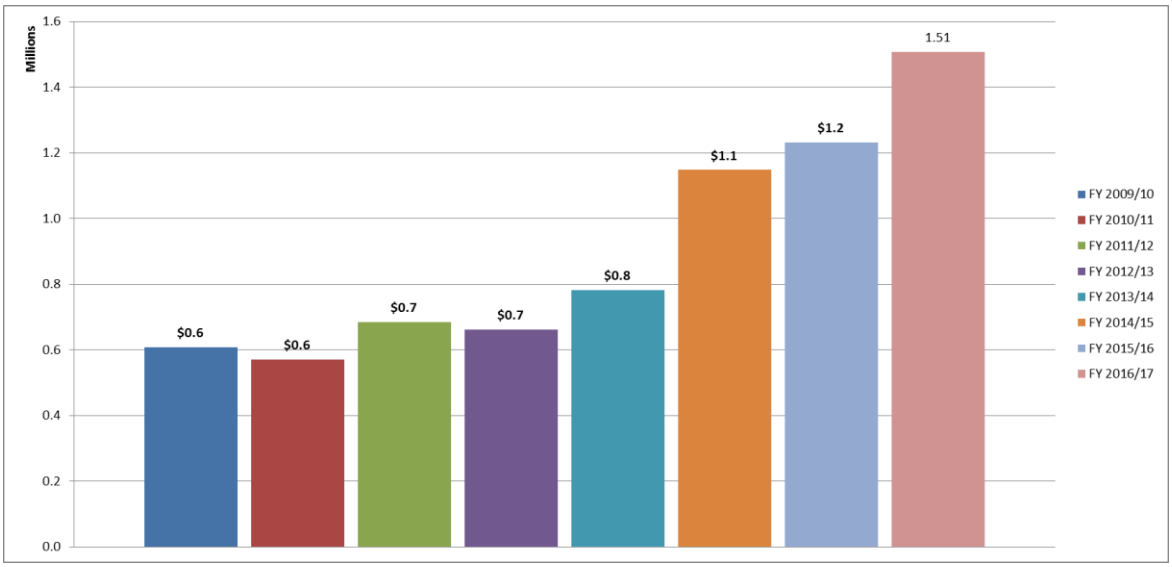


Sales Taxes

Based on the recovering economy and new businesses that began operating in the City, the FY 2016/17 sales tax budget was increased by 6%. Sales tax receipts will need to be continually monitored through the year to determine if current trends begin to plateau or begin to decrease.

Based on historical averages of actual receipts, the City is estimated to receive 6% of the budgeted sales tax revenue through first quarter. The City has currently received 7% through first quarter.

Chart 3. General Fund First Quarter Revenue Trend – Sales Taxes



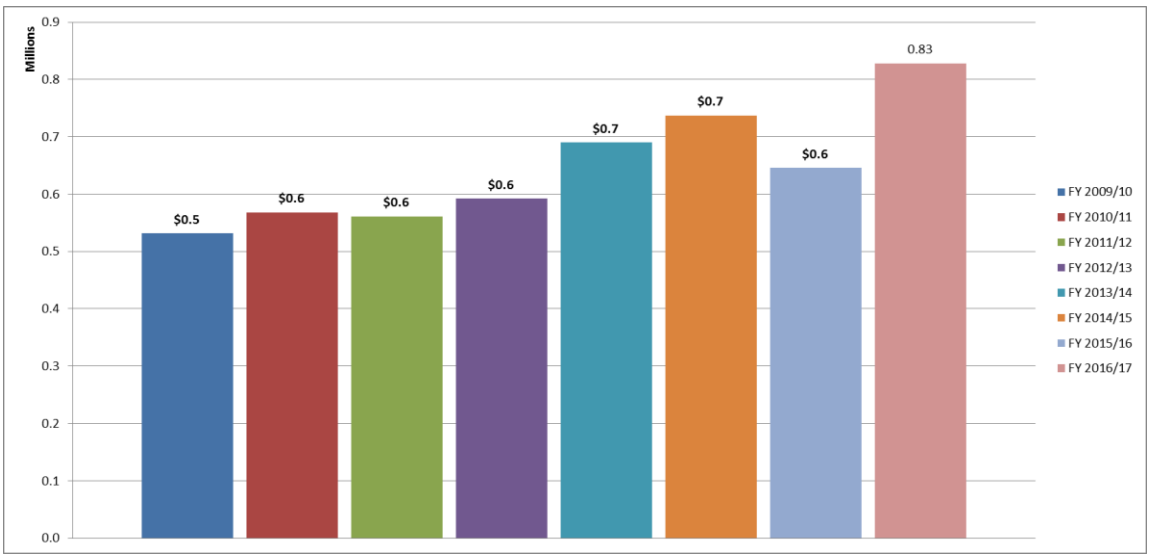
Attachment: FY 2016-17 First Qtr Financial Rep (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

Other Taxes

Other taxes are primarily composed of Business Gross Receipts, Transient Occupancy Tax, Documentary Transfer Tax, and Franchise Fees. Collectively, other taxes were budgeted to increase 3.1% from the FY 2015/16 Amended Budget.

Based on historical averages of actual receipts, the City is estimated to receive 8% of the budgeted Other Taxes revenue through first quarter. The City has currently received 9% through first quarter.

Chart 4. General Fund First Quarter Revenue Trend – Other Taxes



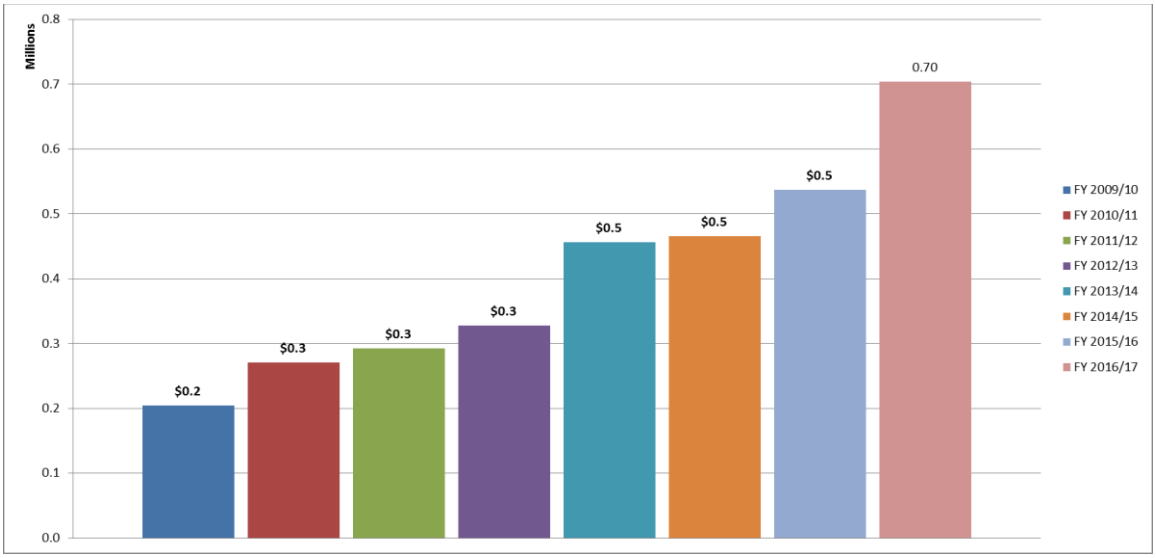
Licenses & Permits

Licenses & Permits are primarily composed of Business and Animal Licenses, along with Building, Electrical, Mechanical, Plumbing and other permits. Collectively, Licenses & Permits were budgeted to decrease 36% from the FY 2015/16 Amended Budget.

Based on historical averages of actual receipts, the City is estimated to receive 23% of the budgeted Licenses & Permits revenue through first quarter. The City has currently received 34% through first quarter. The higher growth rate is related primarily to the recent building permit activities.

Attachment: FY 2016-17 First Qrtr Financial Rep (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

Chart 5. General Fund First Quarter Revenue Trend – Licenses & Permits

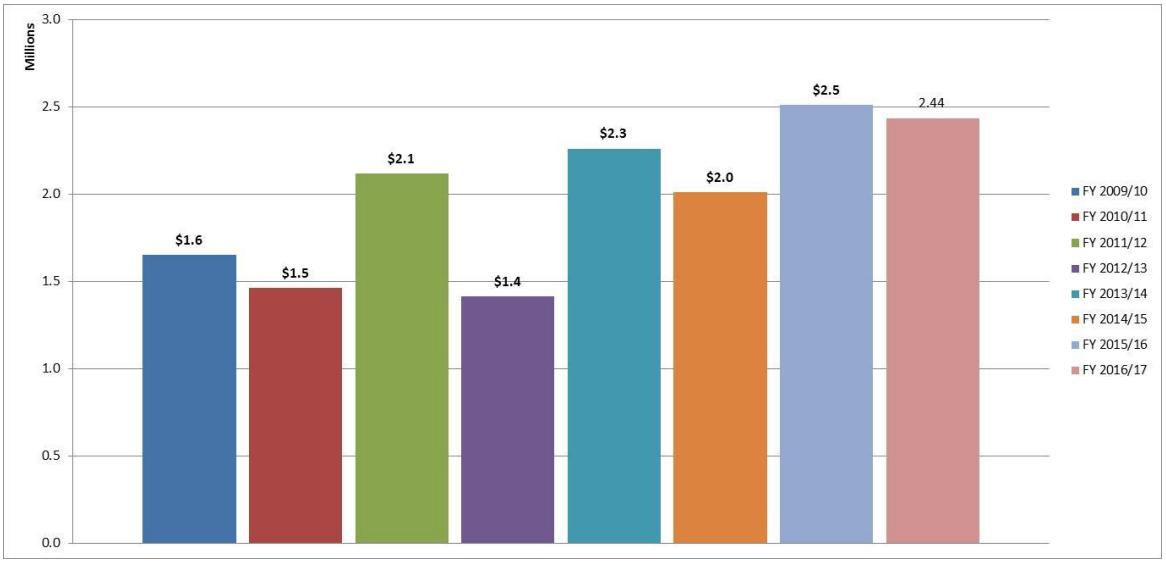


Charges for Services

Charges for Services are primarily composed of Plan Check Fees, Inspection Fees, Administrative Charges to other funds, and Parking Control Fines. Collectively, Charges for Services were budgeted to increase 2% from the FY 2015/16 Amended Budget.

Based on historical averages of actual receipts, the City is estimated to receive 22% of the budgeted Charges for Services revenue through first quarter. The City has currently received 22% through first quarter.

Chart 6. General Fund First Quarter Revenue Trend – Charges for Services



Attachment: FY 2016-17 First Qrtr Financial Rep (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

Use of Money and Property

Investment income continues to remain low due to extremely low rates of return for fixed income investments. The investments managed by Chandler Asset Management totaled $83,379,424 at par and achieved a Yield to Maturity (YTM) for September 2016 of 1.49%. This compares to a YTM in September 2015 of 1.41% and a YTM in June 2016 of 1.49%. The investments managed by Insight Investments totaled $54,722,092 at par and achieved a Yield to Maturity (YTM) for September 2016 of 1.10%. This compares to a YTM in September 2015 of 1.08% and a YTM in June 2016 of 1.09%. In addition, the City maintained $37,892,341 in the State Local Agency Investment Fund Pool (LAIF) with a YTM of 0.63%. This is a very low rate of return compared to historical experience, but is indicative of how investment income is performing everywhere. As the market begins to move upward, there will be less opportunity for the trading gains that are generally available under an active management approach.

General Fund Expenditures

Expenditures are being spent in-line with prior year expenditures. Each Department's activities will be monitored throughout the year as they may be impacted by different economic activity cycles and pressures.

Table 4. General Fund Expenditures

	FY 2016/17 Adopted Budget	FY 2016/17 Amended Budget	Actuals as of 9/30/16 (unaudited)	% of Amended Budget
Department				
City Council	$ 638,925	$ 985,598	$ 241,815	24.5%
City Clerk	$ 689,746	$ 689,746	$ 88,076	12.8%
City Manager	$ 1,656,313	$ 5,382,783	$ 1,069,360	19.9%
City Attorney	$ 728,616	$ 828,616	$ 125,756	15.2%
Community Development	$ 5,706,871	$ 5,826,871	$ 1,173,384	20.1%
Economic Development	$ 1,097,783	$ 1,097,783	$ 236,916	21.6%
Financial & Management Services	$ 7,596,922	$ 3,501,011	$ 777,151	22.2%
Administrative Services	$ 3,934,529	$ 3,995,245	$ 913,081	22.9%
Public Works	$ 8,015,264	$ 8,418,761	$ 1,090,716	13.0%
Non-Departmental	$ 3,571,676	$ 3,489,075	$ 1,848,437	53.0%
Non-Public Safety Subtotal	$ 33,636,645	$ 34,215,489	$ 7,564,692	22.1%
Public Safety				
Police	$ 41,952,136	$ 41,952,136	$ 10,502,004	25.0%
Fire	$ 18,822,252	$ 18,822,252	$ 4,685,325	24.9%
Public Safety Subtotal	$ 60,774,388	$ 60,774,388	$ 15,187,329	25.0%
Total	**$ 94,411,033**	**$ 94,989,877**	**$ 22,752,020**	

Attachment: FY 2016-17 First Qtr Financial Rep (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

Attachment: FY 2016-17 First Qrtr Financial Rep (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

OTHER KEY FUNDS

The following summaries describe other major funds in the City.

Moreno Valley Community Services District

The Moreno Valley Community Services District (CSD) was formed by the voters in 1984 to collect fees and certain taxes to provide an array of services including parks, recreation and community services, streetlights, landscaping and ongoing maintenance. The CSD provides these services through separate "zones" that define the services that are provided.

For certain zones, the primary revenue source used to provide services to properties is parcel fees or taxes levied on properties via their annual tax bill. Proposition 218, passed by California voters in November 1996, and has posed a serious challenge to managing the future operation of the CSD zones. Prop. 218 requires any revenue increase to be addressed through a voting process by affected property owners. For a period following the initial implementation of Prop. 218, the CSD was successful in receiving approval for some new or increased revenues. There were also revenue increases due to the growth of developed parcels within the zones. However, due to cost increases that exceed any offsetting increases in the revenues over the past years, and the recent economic downturn slowing new parcel growth, property owners have been resistant to efforts to fully fund service levels.

Table 5. CSD Operations

	FY 2016/17 Adopted Budget	FY 2016/17 Amended Budget	Actuals as of 9/30/2016 (unaudited)	% of Amended Budget
Revenues:				
Taxes:				
Property Tax	$ 4,172,457	$ 4,172,457	$ 157,660	3.8%
Other Taxes	$ 6,413,100	$ 6,413,100	$ -	0.0%
Charges for Services	$ 3,189,250	$ 3,189,250	$ 311,533	9.8%
Use of Money & Property	$ 737,163	$ 732,964	$ 116,575	15.9%
Fines & Forfeitures	$ 50,000	$ 50,000	$ 8,997	18.0%
Miscellaneous	$ 9,150	$ 9,150	$ 714,810	7812.1%
Transfers In	$ 647,147	$ 649,446	$ 162,360	25.0%
Total Revenues	$ 15,218,267	$ 15,216,367	$ 1,471,935	9.7%
Expenditures:				
Library Services Fund (5010)	$ 1,779,473	$ 1,779,473	$ 443,549	24.9%
Zone A Parks Fund (5011)	$ 9,250,791	$ 9,245,073	$ 2,151,885	23.3%
Zone C Arterial Street Lighting Fund (5110)	$ 1,033,249	$ 1,033,249	$ 148,269	14.3%
Zone D Standard Landscaping Fund (5111)	$ 1,204,716	$ 1,204,716	$ 166,402	13.8%
Zone E Extensive Landscaping Fund (5013)	$ 531,589	$ 531,589	$ 28,601	5.4%
Zone M Median Fund (5112)	$ 199,740	$ 199,740	$ 25,885	13.0%
CFD No. 1 (5113)	$ 1,590,216	$ 1,602,280	$ 289,662	18.1%
Zone S (5114)	$ 54,449	$ 54,449	$ 9,770	17.9%
Total Expenditures	$ 15,644,223	$ 15,650,569	$ 3,264,022	20.9%
Net Change or Adopted Use of Fund Balance	**$ (425,956)**	**$ (434,202)**	**$ (1,792,088)**	

Community Services District Zone A – Parks & Community Services

The largest Zone within the CSD is Zone A. It accounts for the administration and maintenance of the Parks & Community Services facilities and programs. Funding sources for these services come from a combination of property taxes, fees for service and smaller amounts from other City funds.

Attachment: FY 2016-17 First Qtr Financial Rep (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

Table 6. CSD Zone A Operations

	FY 2016/17 Adopted Budget	FY 2016/17 Amended Budget	Actuals as of 9/30/16 (unaudited)	% of Amended Budget
Revenues:				
Taxes:				
Property Tax	$ 2,250,887	$ 2,250,887	$ 83,494	3.7%
Other Taxes	$ 4,930,000	$ 4,930,000	$ -	0.0%
Charges for Services	$ 1,114,350	$ 1,114,350	$ 291,507	26.2%
Use of Money & Property	$ 681,200	$ 677,001	$ 155,225	22.9%
Miscellaneous	$ 7,150	$ 7,150	$ 4,032	56.4%
Transfers In	$ 521,021	$ 521,021	$ -	0.0%
Total Revenues	$ 9,504,608	$ 9,500,409	$ 534,258	5.6%
Expenditures:				
35010 Parks & Comm Svcs - Admin	$ 500,638	$ 506,984	$ 94,114	18.6%
35210 Park Maintenance - General	$ 3,472,640	$ 3,453,369	$ 808,720	23.4%
35211 Contract Park Maintenance	$ 502,650	$ 502,650	$ 65,588	13.0%
35212 Park Ranger Program	$ 386,369	$ 386,369	$ 76,509	19.8%
35213 Golf Course Program	$ 278,757	$ 334,224	$ 89,616	26.8%
35214 Parks Projects	$ 207,700	$ 207,700	$ 46,344	22.3%
35310 Senior Program	$ 571,615	$ 571,615	$ 114,620	20.1%
35311 Community Services	$ 189,741	$ 157,611	$ 45,454	28.8%
35312 Community Events	$ 82,767	$ 90,767	$ 23,168	25.5%
35313 Conf & Rec Cntr	$ 492,927	$ 492,927	$ 123,261	25.0%
35314 Conf & Rec Cntr - Banquet	$ 343,393	$ 343,393	$ 77,952	22.7%
35315 Recreation Programs	$ 1,344,500	$ 1,344,500	$ 354,548	26.4%
35317 July 4th Celebration	$ 134,594	$ 134,594	$ 46,259	34.4%
35318 Sports Programs	$ 676,447	$ 652,317	$ 134,629	20.6%
35319 Towngate Community Center	$ 66,053	$ 66,053	$ 14,847	22.5%
95011 Non-Dept Zone A Parks	$ -	$ -	$ 36,256	
Total Expenditures	$ 9,250,791	$ 9,245,073	$ 2,151,885	23.3%
Net Change or Adopted Use of Fund Balance	**$ 253,817**	**$ 255,336**	**$ (1,617,627)**	

Electric Utility

The Moreno Valley Utility (MVU) manages the operation, maintenance and business planning of the City's electric utility. MVU's basic purpose is to purchase and distribute electricity to customers in newly developed areas of the City. The City began serving new customers in February 2004, and now serves more than 5,600 customers. As it reaches fiscal and operational maturity, MVU will continue to be a key component of the City's economic development strategy. The City Council has established special tiered rates for electric utility customers based upon factors such as the number of jobs created.

The main revenue source for this fund is derived from charges for services. The customer base includes residential, commercial and industrial customers. The growth in customer base will continue to provide for the ability to create rate stabilization and replacement reserve funding.

Attachment: FY 2016-17 First Qrtr Financial Rep (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

Table 7. MVU Operations

	FY 2016/17 Adopted Budget	FY 2016/17 Amended Budget	Actuals as of 9/30/2016 (unaudited)	% of Amended Budget
Revenues:				
Taxes:				
Charges for Services	$ 28,475,344	$ 27,020,305	$ 8,400,612	31.1%
Use of Money & Property	$ 80,500	$ 80,500	$ (71,829)	-89.2%
Miscellaneous	$ 86,625	$ 86,625	$ 27,270	31.5%
Total Revenues	$ 28,642,469	$ 27,187,430	$ 8,356,053	30.7%
Expenditures:				
45510 Electric Utility - General	$ 18,508,368	$ 18,514,714	$ 3,625,802	19.6%
45511 Public Purpose Program	$ 2,903,183	$ 1,008,000	$ 31,345	3.1%
Taxable Lease Rev Bonds	$ 1,834,700	$ 1,834,700	$ -	0.0%
80005 CIP - Electric Utility	$ -	$ 17,831,000	$ 83,303	0.5%
96032 Non-Dept 2014 Refunding 2005 LRB	$ 122,500	$ 122,500	$ -	0.0%
Total Expenditures	$ 23,368,751	$ 39,310,914	$ 3,740,450	9.5%
Net Change or Adopted Use of Fund Balance	**$ 5,273,718**	**$ (12,123,484)**	**$ 4,615,604**	

MVU's revenues and expenses will fluctuate annually based on energy demands.

SUMMARY

The City of Moreno Valley is experiencing certain levels of growth and continues to maintain a balanced Budget without the use of reserves.

Although the City has experienced positive results in some areas through FY 2015/16 and through the first quarter of FY 2016/17, the City should remain cautiously optimistic as we proceed through the fiscal year.

As positive fund balances begin to grow, we will bring back to the City Council for discussion options to address the other challenges and unfunded liabilities, as well as examining the reserve fund balances held by the City.

Attachment: FY 2016-17 First Qrtr Financial Rep (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

RESOLUTION NO. 2017-09

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, ADOPTING THE REVISED OPERATING AND CAPITAL BUDGETS FOR FISCAL YEAR 2016/17

WHEREAS, the City Council approved the Operating and Capital Budgets for the City for Fiscal Year 2016/17, a copy of which, as may have been amended by the City Council, is on file in the Office of the City Clerk and is available for public inspection; and

WHEREAS, the City Council approves amendments to the budgets throughout the fiscal year and such prior amendments are reflected within the current amended budget and further ratified as part of the adoption of the 1st Quarter budget amendments; and

WHEREAS, the City Manager has heretofore submitted to the City Council proposed amendments to the Operating and Capital Budgets for the City for Fiscal Year 2016/17, a copy of which, as may have been amended by the City Council, is on file in the Office of the City Clerk and is available for public inspection; and

WHEREAS, the said proposed amendments to the Operating and Capital Budgets contain estimates of the services, activities and projects comprising the budget, and contains expenditure requirements and the resources available to the City; and

WHEREAS, the said proposed amendments to the Operating and Capital Budgets contain the estimates of uses of fund balance as required to stabilize the delivery of City services during periods of operational deficits; and

WHEREAS, the City Council has made such revisions to the proposed amended Operating and Capital Budgets as so desired; and

WHEREAS, the amended Operating and Capital Budgets, as herein approved, will enable the City Council to make adequate financial plans and will ensure that City officers can administer their respective functions in accordance with such plans.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

1. The proposed amendments to the Operating and Capital Budgets, as Exhibits A, B and C to this Resolution and as on file in the Office of the City Clerk, and as may have been amended by the City Council, are hereby approved and adopted as the annual Operating and Capital Budgets of the City of Moreno Valley for the Fiscal Year 2016/17.

Attachment: City Resolution 2017-09 [Revision 1] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

2. The Proposed Amendments to Position Control included within the staff report and contained in the Position Control Roster attached as Attachment 9 and on file in the Office of the City Clerk, and as may have been amended by the City Council, is hereby adopted as part of the Approved Position Control of the City of Moreno Valley for Fiscal Years 2016/17.
3. The amounts of proposed expenditures, which include the uses of fund balance specified in the approved budget, are hereby appropriated for the various budget programs and units for said fiscal year.
4. Within fifteen (15) days after the adoption of this Resolution, the City Clerk shall certify to the adoption hereof and, as so certified, cause a copy to be posted in at least three (3) public places within the City.

BE IT FURTHER RESOLVED that this Resolution shall take effect immediately upon its adoption.

APPROVED AND ADOPTED this 7th day of February, 2017.

_____
Mayor of the City of Moreno Valley

ATTEST:

_____
Interim City Clerk

APPROVED AS TO FORM:

_____
City Attorney

Attachment: City Resolution 2017-09 [Revision 1] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

RESOLUTION JURAT

STATE OF CALIFORNIA)

COUNTY OF RIVERSIDE) ss.

CITY OF MORENO VALLEY)

I, Marie Macias, MMC, Interim City Clerk of the City of Moreno Valley, California, do hereby certify that Resolution No. 2017-09 was duly and regularly adopted by the City Council of the City of Moreno Valley at a regular meeting thereof held on the 7th day of February, 2017 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

(Council Members, Mayor Pro Tem and Mayor)

_____

INTERIM CITY CLERK

(SEAL)

Attachment: City Resolution 2017-09 [Revision 1] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

CITY OF MORENO VALLEY
GENERAL FUND
FY 2016/17 Proposed Amendments

Department	Fund	Account Description	General Ledger Account	Project	Fiscal Year 2016/17 Amended Budget	Proposed Amendment	Revised Budget	Description - Proposed Adjustment
Financial & Management Svcs	1010	Transfers to 2011 PRIV PLACE REF. 97 LRBS	1010-99-99-91010-903751		$ 339,000	(150,000)	$ 189,000	Record Recognized Obligation Payment Schedule (ROPS) 16/17A&B approved debt service transfer with the Department of Finance, reducing General Fund Transfer.
Public Works	1010	Transfers to LMD 2014-02	1010-99-99-91010-905014		$ 220,529	(18,722)	$ 201,807	LMD GF Contribution 1) Adjust GF contribution to be consistent with FY 2016/17 Engineer's Report 2) Created General Benefit line item for Zone 09 (new Zone from May 2015)
Economic Development	1010	Salaries, Regular	1010-22-25-20010-611110		423,495	124,564	$ 548,059	Senior Management Analyst: Adjustment to personnel based on Strategic Plan compliance (Initiatives 1.8.1 and 1.8.2) to support Business Attraction Marketing efforts and Business Support Services / Small Business Development. This position is needed to comply with the 6 month Strategic Plan hiring deadlines. Economic Development Department is requesting one Senior Management Analyst. This budget adjustment request reflects funding for one Senior Management Analyst.
City Attorney	1010	Salaries, Regular	1010-14-10-14010-611110		256,030	75,000	$ 331,030	Reactivation of an existing Deputy City Attorney (C31 $91,554 – $128,902) job classification, which is currently an unfunded position in the City Attorney's office. This would result in long term costs savings realized by decreasing outside counsel billing, while providing a wider range of legal services on an in-house basis.
EXPENSES TOTAL					**$ 1,239,054**	**30,842**	**$ 1,269,896**	
Financial & Management Svcs	1010	Business Gross Receipts	1010-30-37-25210-405000		$ 1,778,000	222,000	$ 2,000,000	Revenue budget projection revision.
Financial & Management Svcs	1010	False Alarm Fees	1010-30-37-25210-500100		145,000	(45,000)	$ 100,000	Revenue budget projection revision.
Financial & Management Svcs	1010	Property Tax - Redevelopment Redistribution	1010-40-45-30110-401065		281,626	119,000	$ 400,626	Revenue budget projection revision.
Financial & Management Svcs	1010	Property Tax - Redevelopment Redistribution	1010-99-99-91010-401065		286,503	114,000	$ 400,503	Revenue budget projection revision.
Financial & Management Svcs	1010	Sales Tax - General	1010-99-99-91010-402000		14,875,474	4,642,783	$ 19,518,257	Revenue budget projection revision.
Financial & Management Svcs	1010	Property Tax in Lieu-Sales Tax	1010-99-99-91010-402030		5,611,392	(5,611,392)	$ -	Revenue budget projection revision.
Financial & Management Svcs	1010	Transient Occupancy Tax	1010-99-99-91010-403000		1,105,650	195,000	$ 1,300,650	Revenue budget projection revision.
Financial & Management Svcs	1010	Documentary Transfer Tax	1010-99-99-91010-406000		500,000	200,000	$ 700,000	Revenue budget projection revision.
Financial & Management Svcs	1010	Interest Income - Investments	1010-99-99-91010-460010		2,000,000	(500,000)	$ 1,500,000	Revenue budget projection revision.
Financial & Management Svcs	1010	Interest Income - Other	1010-99-99-91010-460200		9,090	300,000	$ 309,090	Revenue budget projection revision.
Financial & Management Svcs	1010	Franchise Fees	1010-99-99-91010-500010		5,856,838	(250,000)	$ 5,606,838	Revenue budget projection revision.
Financial & Management Svcs	1010	Property Tax in Lieu-VLF	1010-99-99-91010-401060		16,597,580	832,670	$ 17,430,250	Revenue budget projection revision.
REVENUE TOTAL					**$ 49,047,153**	**219,061**	**$ 49,266,214**	

CITY OF MORENO VALLEY
NON - GENERAL FUND
FY 2016/17 Proposed Amendments

Department	Fund	Account Description	General Ledger Account		Fiscal Year 2016/17 Amended Budget	Proposed Amendment	Revised Budget	Description - Proposed Adjustment
Financial & Management Svcs	4800	Transfers to 2011 PRIV PLACE REF. 97 LRBS	4800-99-99-94800-903751		0	150,000	150,000	Record ROPS 16/17B (amended) approved debt service transfer with the Department of Finance, reducing General Fund Transfer.
Financial & Management Svcs	4800	Agreement Reimbursements	4800-99-99-94800-680310		0	414,331	414,331	
Financial & Management Svcs	2200	Salaries, Regular	2200-70-78-77311-611110		17,942	(6,316)	11,626	Adjust beverage container recycling budget to actual grant revenue remainging to be expended.
Financial & Management Svcs	2200	Salaries, Overtime	2200-70-78-77311-611210		4,536	(2,000)	2,536	
Financial & Management Svcs	2200	Salaries, Addl - Other	2200-70-78-77311-611699		2,913	(1,000)	1,913	
Financial & Management Svcs	2200	Benefits - PERS & ERPD Def Comp	2200-70-78-77311-612110		5,526	(2,500)	3,026	
Financial & Management Svcs	2200	Benefits - Bank	2200-70-78-77311-612120		4,744	(2,500)	2,244	
Financial & Management Svcs	2200	Benefits - Medicare	2200-70-78-77311-612130		329	(100)	229	
Financial & Management Svcs	2200	Salaries, Overtime	2200-70-78-77311-620510		2,400	(2,000)	400	
Financial & Management Svcs	2200	Salaries, Overtime	2200-70-78-77311-620610		2,790	(2,000)	790	
Financial & Management Svcs	2200	Salaries, Overtime	2200-70-78-77311-620620		12,837	(8,000)	4,837	
Financial & Management Svcs	2503	Salaries, Regular	2503-40-47-74105-611110		37,909	(37,909)	0	Adjust budget to actuals for 2015 - Fully expended Emergency Management Grant (EMPG) grant.
Financial & Management Svcs	2503	Salaries, Addl - Other	2503-40-47-74105-611699		6,131	(6,131)	0	
Financial & Management Svcs	2503	Benefits - PERS & ERPD Def Comp	2503-40-47-74105-612110		11,726	(11,726)	0	
Financial & Management Svcs	2503	Benefits - Bank	2503-40-47-74105-612120		12,608	(12,608)	0	
Financial & Management Svcs	2503	Benefits - Medicare	2503-40-47-74105-612130		733	(733)	0	

Financial & Management Svcs	2503	Benefits - Group Life Insurance	2503-40-47-74105-612140		232	(232)	0	
Financial & Management Svcs	2503	Benefits - ST/LT Disability	2503-40-47-74105-612145		381	(381)	0	
Financial & Management Svcs	2503	Benefits - Other	2503-40-47-74105-612199		132	(132)	0	
Financial & Management Svcs	2503	Communications	2503-40-47-74105-620410		587	(587)	0	
Financial & Management Svcs	2503	Oper Mtrls - Other	2503-40-47-74105-630399		5,261	(5,261)	0	
Financial & Management Svcs	2503	Salaries, Regular	2503-40-47-74106-611110		0	15,487	15,487	Adjust budget for remaining EMPG grant to be reimbursed for FY 16/17 - SHSP 15.
Financial & Management Svcs	2503	Benefits - PERS & ERPD Def Comp	2503-40-47-74106-612110		0	7,000	7,000	
Financial & Management Svcs	2503	Benefits - Medicare	2503-40-47-74106-612130		0	1,000	1,000	
Financial & Management Svcs	2503	Benefits - Group Life Insurance	2503-40-47-74106-612140		0	1,000	1,000	
Financial & Management Svcs	2503	Oper Mtrls - Other	2503-40-47-74106-630399		0	1,000	1,000	
Public Works	2001	CIP Other	2001-70-77-80001-720199	801 0009 70 77	6,134,043	218,000	6,352,043	As a result of design changes as requested by the residents during construction, additional work has been added to the contractor's scope of work. City Council approved the increase in the contractor's contract budget on June 21, 2016. This project budget adjustment is necessary to cover the costs of construction engineering, inspection, and project administration related to the said design changes and additional work.
Public Works	2910	Transfers to FACILITY CONST FUND	2910-99-95-92910-903000	803 0002 70 77	0	48,000	48,000	This project budget adjustment is necessary to cover the cost of various equipment and materials added to the new building at the completion of the construction. These include security systems equipment, window shading in the lobby area, security metal mesh attachments to new fence, re-keying for all doors, and flags and brass locking covers.
Public Works	3000	CIP Other	3000-70-77-80003-720199	803 0002 70 77	160,000	48,000	208,000	
Public Works	2001	Professional Svcs - Other	2001-70-77-45230-620299		92,500	94,000	186,500	The Measure A operating budget is used to fund various transportation management programs. Professional consultants are awarded contracts to provide services for the following programs: Revisions to Standard Plans, Disadvantaged Business Enterprise (DBE) Program, Pavement Management Program (PAVER), and Grant Applications. The current line item amount budgeted for professional services is $92,500. The contract for the DBE Program has encumbered $60,210 of this amount. Federal grant eligibility requires update of the PAVER Program every three years. The program was last updated in FY 13/14. A minimum of $125,000 is needed for professional consultant services to update the PAVER Program. Updates to PAVER have traditionally been funded by Measure A. No other funding sources are currently available to update the program.
Parks & Community Svcs	5113	Oper Mtrls - Improvements	5113-50-57-35216-630332		11,500	26,000	37,500	Calsense Irrigation Controllers for 3 CFD Parks: Vista Lomas, Rockridge, and Rancho Verde. Currently no communication to controllers from central station. Needed for compliance with water reductions. Funding will come from fund balance.
Parks & Community Svcs	5011	Salaries, Regular	5011-50-57-35210-611110		794,198	(21,406)	772,792	Reallocation of personnel expenses due to realignment of Parks Maintenance staff.
Parks & Community Svcs	5011	Benefits - PERS & ERPD Def Comp	5011-50-57-35210-612110		245,198	(6,758)	238,440	
Parks & Community Svcs	5011	Benefits - Medicare	5011-50-57-35210-612130		14,569	(310)	14,259	
Parks & Community Svcs	5011	Salaries, Regular	5011-50-57-35213-611110		33,548	6,714	40,262	
Parks & Community Svcs	5011	Benefits - PERS & ERPD Def Comp	5011-50-57-35213-612110		8,975	2,179	11,154	
Parks & Community Svcs	5011	Benefits - Medicare	5011-50-57-35213-612130		643	97	740	
Parks & Community Svcs	5113	Salaries, Regular	5113-50-57-35216-611110		365,331	14,692	380,023	
Parks & Community Svcs	5113	Benefits - PERS & ERPD Def Comp	5113-50-57-35216-612110		110,037	4,579	114,616	
Parks & Community Svcs	5113	Benefits - Medicare	5113-50-57-35216-612130		6,671	213	6,884	
Public Works	4015	Admin Charg - Special District	4015-99-99-94015-692020		0	966	966	87-4 Centerpointe Admin Charges 1) Transfers delinquent special tax into SD Admin fund to cover unpaid Admin expenses

Public Works	2050	Utilities - Electricity	2050-70-79-25722-621010		6,900	8,100	15,000	CFD No. 2014-01 1) Increase electricity costs for projects annexing into and developing in SL-01 and SL-02.
Public Works	5014	Postage - Mail	5014-70-79-25721-630110	SD LMD ZN 04-MVRE	4,644	1,000	5,644	Postage 1) Increase postage costs for Zone 04 service reduction letters.
Public Works	5111	Communications	5111-70-79-25704-620410		4,800	828	5,628	Communications Charges
Public Works	5013	Communications	5013-70-79-25705-620410		94	151	245	1) Increase for monthly data charges and original purchase related to landscape inspector ipads and iphones.
Public Works	5112	Communications	5112-70-79-25719-620410		3,300	153	3,453	
Public Works	5114	Communications	5114-70-79-25720-620410		1,200	30	1,230	
Public Works	5014	Communications	5014-70-79-25721-620410	SD LMD ZN 01-TG	9,406	307	9,713	
Public Works	5014	Communications	5014-70-79-25721-620410	SD LMD ZN 01A-RP	9,406	77	9,483	
Public Works	5014	Communications	5014-70-79-25721-620410	SD LMD ZN 02-HS	9,406	605	10,011	
Public Works	5014	Communications	5014-70-79-25721-620410	SD LMD ZN 03-MVRW	9,406	918	10,324	
Public Works	5014	Communications	5014-70-79-25721-620410	SD LMD ZN 03A-LPP	9,406	70	9,476	
Public Works	5014	Communications	5014-70-79-25721-620410	SD LMD ZN 04-MVRE	9,406	624	10,030	
Public Works	5014	Communications	5014-70-79-25721-620410	SD LMD ZN 05-SR	9,406	72	9,478	
Public Works	5014	Communications	5014-70-79-25721-620410	SD LMD ZN 06-MF	9,406	117	9,523	
Public Works	5014	Communications	5014-70-79-25721-620410	SD LMD ZN 07-CEL	9,406	41	9,447	
Public Works	5014	Communications	5014-70-79-25721-620410	SD LMD ZN 08-SM	9,406	78	9,484	
Public Works	5111	Maint & Repair - Bldg & Ground	5111-70-79-25704-620910		345,100	3,293	348,393	Landscape Maintenance
Public Works	5112	Maint & Repair - Bldg & Ground	5112-70-79-25719-620910		77,900	1,295	79,195	1) Tree trimming budget adjustments
Public Works	5114	Maint & Repair - Bldg & Ground	5114-70-79-25720-620910		22,500	1,000	23,500	
Public Works	5014	Maint & Repair - Bldg & Ground	5014-70-79-25721-620910	SD LMD ZN 01-TG	1,167,204	1,551	1,168,755	
Public Works	5014	Maint & Repair - Bldg & Ground	5014-70-79-25721-620910	SD LMD ZN 01A-RP	1,167,204	1,000	1,168,204	
Public Works	5014	Maint & Repair - Bldg & Ground	5014-70-79-25721-620910	SD LMD ZN 02-HS	1,167,204	2,834	1,170,038	
Public Works	5014	Maint & Repair - Bldg & Ground	5014-70-79-25721-620910	SD LMD ZN 03-MVRW	1,167,204	1,000	1,168,204	
Public Works	5014	Maint & Repair - Bldg & Ground	5014-70-79-25721-620910	SD LMD ZN 03A-LPP	1,167,204	1,000	1,168,204	
Public Works	5014	Maint & Repair - Bldg & Ground	5014-70-79-25721-620910	SD LMD ZN 04-MVRE	1,167,204	1,000	1,168,204	
Public Works	5014	Maint & Repair - Bldg & Ground	5014-70-79-25721-620910	SD LMD ZN 05-SR	1,167,204	1,000	1,168,204	
Public Works	5014	Maint & Repair - Bldg & Ground	5014-70-79-25721-620910	SD LMD ZN 06-MF	1,167,204	1,000	1,168,204	
Public Works	5014	Maint & Repair - Bldg & Ground	5014-70-79-25721-620910	SD LMD ZN 07-CEL	1,167,204	1,000	1,168,204	
Public Works	5014	Maint & Repair - Bldg & Ground	5014-70-79-25721-620910	SD LMD ZN 08-SM	1,167,204	1,000	1,168,204	
Public Works	5013	Maint & Repair - Bldg & Ground	5013-70-79-25713-620910		55,500	1,000	56,500	
Public Works	5013	Maint & Repair - Bldg & Ground	5013-70-79-25714-620910		303,300	1,000	304,300	
Public Works	5014	Salaries, Reimbursable (In/Out)	5014-70-79-25721-611510	SD LMD ZN 09-SV	388,400	1,685	390,085	Zone 09 Budget
Public Works	5014	Professional Svcs - Other	5014-70-79-25721-620299	SD LMD ZN 09-SV	15,399	106	15,505	1) Establish a budget for Zone 09 expenses. (formed in May 2015)
Public Works	5014	Agency Svcs - Cnty	5014-70-79-25721-620320	SD LMD ZN 09-SV	7,203	28	7,231	
Public Works	5014	Communications	5014-70-79-25721-620410	SD LMD ZN 09-SV	9,406	118	9,524	
Public Works	5014	Training & Travel	5014-70-79-25721-620510	SD LMD ZN 09-SV	1,043	13	1,056	
Public Works	5014	Maint & Repair - Bldg & Ground	5014-70-79-25721-620910	SD LMD ZN 09-SV	1,167,204	13,262	1,180,466	
Public Works	5014	Maint & Repair - Improvements	5014-70-79-25721-620920	SD LMD ZN 09-SV	14,700	161	14,861	
Public Works	5014	Utilities - Electricity	5014-70-79-25721-621010	SD LMD ZN 09-SV	52,100	480	52,580	
Public Works	5014	Utilities - Water	5014-70-79-25721-621030	SD LMD ZN 09-SV	480,700	7,483	488,183	
Public Works	5014	Postage - Mail	5014-70-79-25721-630110	SD LMD ZN 09-SV	4,644	18	4,662	
Public Works	5014	Oper Suppl - Office	5014-70-79-25721-630210	SD LMD ZN 09-SV	1,043	20	1,063	
Public Works	5014	Oper Mtrls - Grounds	5014-70-79-25721-630316	SD LMD ZN 09-SV	4,737	18	4,755	
Public Works	5014	Oper Mtrls - Improvements	5014-70-79-25721-630332	SD LMD ZN 09-SV	39,443	559	40,002	
Public Works	5014	Oper Mtrls - Fuel: Gasoline	5014-70-79-25721-630355	SD LMD ZN 09-SV	22,368	87	22,455	
Public Works	5014	ISF - TS Oper	5014-70-79-25721-690118	SD LMD ZN 09-SV	25,812	101	25,913	
Public Works	5014	ISF - Risk - General Liability	5014-70-79-25721-690210	SD LMD ZN 09-SV	12,642	49	12,691	
Public Works	5014	ISF - Risk - Workers Comp	5014-70-79-25721-690220	SD LMD ZN 09-SV	1,939	8	1,947	
Public Works	5014	ISF - Purch & Fac - Copier Chrg	5014-70-79-25721-690320	SD LMD ZN 09-SV	948	4	952	
Public Works	5014	Admin Chrg - GF - Cost Alloc	5014-70-79-25721-692010	SD LMD ZN 09-SV	65,442	255	65,697	
Public Works	5014	Admin Chrg - GF - Cost Alloc	5014-70-79-25721-692010	SD LMD ZN 09-SV	65,442	89	65,531	
Public Works	5014	Admin Chrg - Special Dist	5014-70-79-25721-692020	SD LMD ZN 09-SV	68,243	266	68,509	
Public Works	5014	Admin Chrg - Fleet Ops	5014-70-79-25721-692050	SD LMD ZN 09-SV	0	74	74	
Public Works	5014	Professional Svcs - Legal Svcs	5014-70-79-25721-620230	SD LMD ZN 01-TG	0	260	260	Legal Expenses LMD 2014-02
Public Works	5014	Professional Svcs - Legal Svcs	5014-70-79-25721-620230	SD LMD ZN 01A-RP	0	66	66	1) Create budget for anticipated legal expenses to LMD Projects (review ER)
Public Works	5014	Professional Svcs - Legal Svcs	5014-70-79-25721-620230	SD LMD ZN 02-HS	0	513	513	
Public Works	5014	Professional Svcs - Legal Svcs	5014-70-79-25721-620230	SD LMD ZN 03-MVRW	0	778	778	
Public Works	5014	Professional Svcs - Legal Svcs	5014-70-79-25721-620230	SD LMD ZN 03A-LPP	0	59	59	
Public Works	5014	Professional Svcs - Legal Svcs	5014-70-79-25721-620230	SD LMD ZN 04-MVRE	0	528	528	
Public Works	5014	Professional Svcs - Legal Svcs	5014-70-79-25721-620230	SD LMD ZN 05-SR	0	61	61	
Public Works	5014	Professional Svcs - Legal Svcs	5014-70-79-25721-620230	SD LMD ZN 06-MF	0	99	99	
Public Works	5014	Professional Svcs - Legal Svcs	5014-70-79-25721-620230	SD LMD ZN 07-CEL	0	35	35	
Public Works	5014	Professional Svcs - Legal Svcs	5014-70-79-25721-620230	SD LMD ZN 08-SM	0	66	66	
Public Works	5014	Professional Svcs - Legal Svcs	5014-70-79-25721-620230	SD LMD ZN 09-SV	0	36	36	
Public Works	4019	Professional Svcs - Other	4019-70-79-25805-620299		3,000	(3,000)	0	CFD#5 Stoneridge trust fund moved to a debt service fund
Public Works	4019	Agency Svcs - Cnty	4019-70-79-25805-620320		200	(200)	0	

Public Works	4019	Bond Principal	4019-70-79-25805-670314		75,000	(75,000)	0	
Public Works	4019	Interest Expense	4019-70-79-25805-670410		275,800	(275,800)	0	
Public Works	4019	Expenditure Close to Bal	4019-70-79-25805-679010		8,400	(8,400)	0	
Public Works	4019	Admin Chrg - Special Dist	4019-70-79-25805-692020		50,000	(50,000)	0	
Public Works	3708	Professional Svcs - Other	3708-99-90-93708-620299		0	3,000	3,000	
Public Works	3708	Agency Svcs - Cnty	3708-99-90-93708-620320		0	200	200	
Public Works	3708	Bond Principal	3708-99-90-93708-670314		0	75,000	75,000	
Public Works	3708	Interest Expense	3708-99-90-93708-670410		0	275,800	275,800	
Public Works	3708	Admin Chrg - Special Dist	3708-99-90-93708-692020		0	50,000	50,000	
Public Works	2001	CIP Other	2001-70-76-80001-720199		234,475	(50,000)	184,475	True-up of projected projects revenue.
Public Works	2001	CIP Other	2001-70-77-80001-720199		6,134,043	(925,000)	5,209,043	
Public Works	2512	CIP Other	2512-70-77-80001-720199		1,685,246	(550,000)	1,135,246	
Public Works	3003	CIP Other	3003-70-77-80001-720199		2,765,500	(2,000,000)	765,500	
Public Works	2001	CIP Other	2001-70-78-80001-720199		174,623	(60,000)	114,623	
Public Works	2001	CIP Other	2001-70-77-80002-720199		370,300	(360,000)	10,300	
Public Works	3006	CIP Other	3006-50-57-80007-720199		2,186,591	(230,000)	1,956,591	
Public Works	2001	CIP Other	2001-70-76-80008-720199		378,453	(80,000)	298,453	
Public Works	2005	CIP Other	2005-70-76-80008-720199		83,695	(30,000)	53,695	
Public Works	2000	Salaries & Benefits	2000-70-77-45220		1,977,298	(484,152)	1,493,146	Budget is being adjusted based on actual expenditures and the defunding of the Senior Engineer position.
Public Works	2000	Salaries Reimburseable	2000-70-77-45220-611510		(1,649,790)	246,640	(1,403,150)	
Public Works	2000	Salaries & Benefits	2000-70-78-45311		1,714,151	(108,245)	1,605,906	
Public Works	2000	Salaries & Benefits	2000-70-76-45130		462,455	(12,456)	449,999	
EXPENSES TOTAL					**40,076,566**	**(3,668,415)**	**36,408,151**	

Financial & Management Svcs	3751	Transfers In - From SUCCESSOR AGENCY ADMIN FUND	3751-99-90-93751-804800		0	150,000	150,000	Record Record Recognized Obligation Payment Schedule (ROPS) 16/17A&B approved debt service transfer, reducing General Fund Transfer.
Financial & Management Svcs	3751	Transfers in - from GENERAL FUND	3751-99-90-93751-801010		339,000	(150,000)	189,000	
Financial & Management Svcs	4800	Property Tax - Secured	4800-30-36-20801-401000		5,395,317	558,331	5,953,648	
Financial & Management Svcs	2200	Waste Managmt. Recycling	2200-70-78-77311-486200		55,000	(26,416)	28,584	Adjust beverage container recycling budget to actual grant revenue remainging to be expended.
Financial & Management Svcs	2503	Fed Grant-Operating Revenue	2503-40-47-74105-485000		75,700	(75,700)	0	Adjust budget to actuals for 2015 - Fully expended Emergency Management Grant (EMPG).
Financial & Management Svcs	2503	Fed Grant-Operating Revenue	2503-40-47-74106-485000		0	25,487	25,487	Adjust budget for remaining EMPG grant to be reimbursed for FY 16/17 - SHSP 15.
Public Works	2001	RCTC - Sales Tax	2001-99-99-92001-480180		3,805,000	84,000	3,889,000	The Riverside County Transportation Commission updated the Measure A Program allocation projections in February 2016.
Public Works	5014	Transfers in - from GENERAL FUND	5014-99-99-95014-801010	SD LMD ZN 01-TG	220,529	(39)	220,490	LMD GF Contribution 1) Adjust GF contribution to be consistent with FY 2016/17 Engineer's Report
Public Works	5014	Transfers in - from GENERAL FUND	5014-99-99-95014-801010	SD LMD ZN 01A-RP	220,529	(79)	220,450	2) Created General Benefit line item for Zone 09 (new Zone from May 2015)
Public Works	5014	Transfers in - from GENERAL FUND	5014-99-99-95014-801010	SD LMD ZN 02-HS	220,529	(5,534)	214,995	
Public Works	5014	Transfers in - from GENERAL FUND	5014-99-99-95014-801010	SD LMD ZN 03-MVRW	220,529	(510)	220,019	
Public Works	5014	Transfers in - from GENERAL FUND	5014-99-99-95014-801010	SD LMD ZN 03A-LPP	220,529	(6)	220,523	
Public Works	5014	Transfers in - from GENERAL FUND	5014-99-99-95014-801010	SD LMD ZN 04-MVRE	220,529	(10,897)	209,632	
Public Works	5014	Transfers in - from GENERAL FUND	5014-99-99-95014-801010	SD LMD ZN 05-SR	220,529	(2,714)	217,815	
Public Works	5014	Transfers in - from GENERAL FUND	5014-99-99-95014-801010	SD LMD ZN 06-MF	220,529	380	220,909	
Public Works	5014	Transfers in - from GENERAL FUND	5014-99-99-95014-801010	SD LMD ZN 07-CEL	220,529	310	220,839	
Public Works	5014	Transfers in - from GENERAL FUND	5014-99-99-95014-801010	SD LMD ZN 08-SM	220,529	(294)	220,235	
Public Works	5014	Transfers in - from GENERAL FUND	5014-99-99-95014-801010	SD LMD ZN 09-SV	220,529	662	221,191	
Public Works	3000	Transfers in - from DIF - CORPORATE YARD	3000-99-99-93000-802910	803 0002 70 77	0	48,000	48,000	This project budget adjustment is necessary to cover the cost of various equipment and materials added to the new building at the completion of the construction. These include security systems equipment, window shading in the lobby area, security metal mesh attachments to new fence, re-keying for all doors, and flags and brass locking covers.
Public Works	5012	Parcel Fees	5012-70-79-25703-500800		976,100	(30,961)	945,139	Parcel Charges
Public Works	5110	Special Taxes	5110-70-79-25703-404000		423,300	(156)	423,144	1) Adjust parcel charge revenue to match applied fixed charges.
Public Works	5111	Parcel Fees	5111-70-79-25704-500800		1,227,700	(37,747)	1,189,953	
Public Works	5112	Parcel Fees	5112-70-79-25719-500800		168,900	(53,876)	115,024	
Public Works	5114	Parcel Fees	5114-70-79-25720-500800		58,000	463	58,463	
Public Works	5014	Parcel Fees	5014-70-79-25721-500800	SD LMD ZN 01-TG	2,075,300	2,255	2,077,555	
Public Works	5014	Parcel Fees	5014-70-79-25721-500800	SD LMD ZN 01A-RP	2,075,300	356	2,075,656	

Public Works	5014	Parcel Fees	5014-70-79-25721-500800	SD LMD ZN 02-HS	2,075,300	(6,368)	2,068,932	
Public Works	5014	Parcel Fees	5014-70-79-25721-500800	SD LMD ZN 03-MVRW	2,075,300	(7,725)	2,067,575	
Public Works	5014	Parcel Fees	5014-70-79-25721-500800	SD LMD ZN 03A-LPP	2,075,300	(373)	2,074,927	
Public Works	5014	Parcel Fees	5014-70-79-25721-500800	SD LMD ZN 04-MVRE	2,075,300	(4,134)	2,071,166	
Public Works	5014	Parcel Fees	5014-70-79-25721-500800	SD LMD ZN 05-SR	2,075,300	(17,500)	2,057,800	
Public Works	5014	Parcel Fees	5014-70-79-25721-500800	SD LMD ZN 06-MF	2,075,300	1,686	2,076,986	
Public Works	5014	Parcel Fees	5014-70-79-25721-500800	SD LMD ZN 07-CEL	2,075,300	(934)	2,074,366	
Public Works	5014	Parcel Fees	5014-70-79-25721-500800	SD LMD ZN 08-SM	2,075,300	(1,823)	2,073,477	
Public Works	5014	Parcel Fees	5014-70-79-25721-500800	SD LMD ZN 09-SV	2,075,300	24,258	2,099,558	
Public Works	2050	Special Taxes	2050-70-79-25722-404000		42,000	(17,341)	24,659	
Public Works	5013	Parcel Fees	5013-70-79-25705-500800		401,900	49,361	451,261	
Public Works	2006	Administrative Charges	2006-70-79-25701-585020		595,297	966	596,263	87-4 Centerpointe Admin Charges 1) Transfers delinquent special tax into SD Admin fund to cover unpaid Admin expenses
Public Works	5110	Advanced Energy Fees	5110-70-79-25703-501100		174,400	(124,400)	50,000	Advanced Energy Fees - Zone C 1) Reduced to estimated/projected actuals for 16/17.
Public Works	5014	Reimbursement Agreement	5014-70-79-25721-500600	SD LMD ZN 01-TG	500	2,000	2,500	Day Street Median Maintenance Revenue 1) Increase revenue for Riverside's reimbursement of its 1/2 of Day Street median maintenance
Public Works	3708	Special Tax Proceeds	3708-99-90-93708-402040		0	412,300	412,300	CFD#5 Stoneridge trust fund moved to a debt service fund
Public Works	3708	Interest Income - Investments	3708-99-90-93708-460010		0	100	100	
Public Works	4019	Special Taxes	4019-70-79-25805-404000		412,300	(412,300)	0	
Public Works	4019	Interest Income - Investments	4019-70-79-25805-460010		100	(100)	0	
Public Works	2000	State Gas Tax 2107	2000-99-99-92000-408000		1,486,108	254,324	1,740,432	The Gas Tax Revenue adjustments are based on HUTA projects updated in May 2016.
Public Works	2000	State Gas Tax 2106	2000-99-99-92000-408020		562,071	54,484	616,555	
Public Works	2000	State Gas Tax 2105	2000-99-99-92000-408030		1,081,486	171,832	1,253,318	
Public Works	2000	State Gas Tax 2103	2000-99-99-92000-408040		939,097	(452,434)	486,663	
Public Works	2000	Claims, Judgemnts, Settlmnt	2000-99-99-92000-580010		0	20,000	20,000	
Public Works	2001	Interest Income - Investments	2001-99-99-92001-460010		105,000	(6,000)	99,000	1) The reduction in Interest Income is based on interest received. 2) Federal reimbursement was received for the final
Public Works	2001	Fed Reimb-Capital	2001-99-99-92001-482020		0	121,930	121,930	invoice for the STPL award for the Annual Pavement Resurfacing project
Public Works	2301	Fed Reimb-Capital	2301-99-99-92301-482020		4,230,340	(1,905,340)	2,325,000	The currect Federal Reimbursement budget was rolled over from FY 15/16. The amended budget amounts for federal,
Public Works	2301	Reimbursements - Other Govts	2301-99-99-92301-483010		0	637,000	637,000	local, and state reimbursements is based on current project schedules and expenditure estimates.
Public Works	2301	State Grant-Capital Revenue	2301-99-99-92301-486010		0	60,000	60,000	
Public Works	3008	Fed Reimb-Capital	3008-99-99-93008-482020		0	50,000	50,000	Estimated landscape maintenance reimbursement for the Nason Bridge STPL grant.
Public Works	3008	Reimbursement Agreement	3008-99-99-93008-500600		0	71,306	71,306	Reimbursement agreements with Time Warner Cable and EMWD.
Public Works	2512	Fed Grant-Operating Revenue	2512-99-99-92512-485000		2,068,143	538,818	2,606,961	True-up projected revenue.
REVENUE TOTAL					**49,876,878**	**(11,093)**	**49,865,785**	

CITY OF MORENO VALLEY
GENERAL FUND
FY 2016/17 Proposed Carryovers

Department	Fund	Account Description	GL Account	FY 2016/17 Amended Budget	Proposed Carryover	Revised Budget	Description - Proposed Adjustment
Economic Development	1010	Professional Svcs - Other	1010-22-25-20010-620299	$ 45,000	$ 27,625	$ 72,625	The original 16/17 budget objective included funding for consultant expertise for an update to the Economic Development Action Plan. However, the EDAP Update was postponed pending adoption of the Strategic Plan. The adopted Strategic Plan requires completion of the EDAP Update within 1 year (Initiatives 1.1.1, 1.2.1). Cost is estimated at $75,000. Without the carryover, EDD will not be able to complete the EDAP Update. An additional carryover of $27,625 is necessary to complete the Economic Development Website, which is already in progress and required by the Strategic Plan (Initiatives 1.1.6, 1.1.11). Without the carryover, Economic Development Department will not have funds to pay for services remaining in this in-process consultant contract. P.O. 2016-1463.
Administrative Services	1010	Oper Mtrls - Furn & Equip	1010-18-38-18210-630330	48,000.00	38,884.00	86,884.00	Budgeted for $108k. YTD Transactions $69,116.49 (note $63984.16 was reclassed to 660320). Need outdoor doggie play area.
Fire	1010	Mach-Equip, New - Vehicles	1010-40-45-30110-660312	0	27,840	27,840	Request is to cover remaining upfit and outfit of the Urban Search & Rescue vehicle (USAR). The purchase was approved in FY 14/15 by Council at the 5/26/15 meeting as a 'piggy-back' on Riverside County's competitive bid. The vehicle will replace a current USAR vehicle which has weight limitations and cannot respond with lights and sirens which allows for a delayed response to emergencies. With the City's location along fault zones, its population density, mix of residential and commercial developments, major transportation corridors, and historical emergency incident responses, there is great potential for significant injuries and loss of life in a major disaster. The vehicle was delivered in late FY15/16 not allowing for completion of the upfit/outfit . Through the end of FY15/16, the Department used $112,797 for the purchase of the new vehicle and $19,413 for associated equipment. The remaining $27,840 will be to finalize purchase of required associated equipment.
Fire	1010	Mach-Equip, Repl - Vehicles	1010-40-45-30110-660322	0	27,960	27,960	Request is to cover remaining upfit and outfit of the two (2) replacement paramedic squad vehicles. The purchase was approved in FY 14/15 by Council at the 8/26/14 meeting as a 'piggy-back' on Riverside County's competitive bid. The squads will replace two aging vehicles, one 22 years old, and one 24 years old; useful, frontline emergency life of a squad is considered to be 10 years with an additional 5-10 years as a reserve vehicle. These vehicles are used daily for response, special event staffing, training, and serving as additional resources during emergency events. Further, the Department's Strategic Plan 2012-2022 calls for supplemental fire response units to meet increased service demands. The squads will be added in lieu of adding a fire engine to one of the City's busier stations. Through the end of FY15/16, the Department used $288,999 for the purchase of the vehicles and $15,049 for associated equipment. The remaining $27,960 will be to finalize purchase of required associated equipment.
Fire	1010	Mach-Equip, Repl - Other	1010-40-45-30110-660399	0	77,417	77,417	Request is to cover required advanced life support (ALS) and other rescue-related equipment for both squads.
Police	1010	Contractural Svcs - Other	1010-60-65-40010-625099	899,900	25,000	924,900	For pending invoices frum RUHS for sexual assuat exams for FY15/16 (1/1/16 to 6/30/16).
Police	1010	Mach-Equip, New - Vehicles	1010-60-67-40210-660312	0	106,655	106,655	Truck for Commercial Vehicle Safety Program. City Council approved on 5/3/16 (Minute Trk Rep #2038).
Financial & Management Svcs	1010	Professional Svcs - Other	1010-30-35-25011-620299	105,500	105,500	211,000	Carrying over for TOT public outreach contract with Lew Edwards.
Public Works	1010	Professional Svcs - Other	1010-70-29-20410-620299	196,300	200,711	397,011	Requested amount represents P.O. rollovers for FY16/17 expenditure obligations to plan check consultants. Plan check revenues were already received in FY15/16 for services related to development.
Public Works	1010	Mach-Equip, Repl - Vehicles	1010-70-78-45370-660322	2,547,650	1,755,532	4,303,182	Carryover requested for the following vehicle purchases that are ordered but not yet received: (3) Signal Bucket Trucks: PO# 2017-0001 (2) Street Sweepers: PO#2017-0002 (2) Stakebed trucks: PO# 2017-0028 Tree Truck: PO# 2016-1294 Ram Truck test purchase: PO# 2016-1430 (4) Dump Trucks: PO# 2017-0013 & PO# 2017-2017-0020
EXPENSES TOTAL				**$ 3,842,350**	**$ 2,393,124**	**$ 6,235,474**	

CITY OF MORENO VALLEY
GENERAL FUND
FY 2016/17 Proposed Carryovers

Department	Fund	Account Description	GL Account	FY 2016/17 Amended Budget	Proposed Carryover	Revised Budget	Description - Proposed Adjustment
Fire	1010	Transfers in - from EQUIP REPLACEMENT (FURN & EQUIP)	1010-99-99-91010-807510	$ -	$ 27,960	$ 27,960	Request is to cover remaining upfit and outfit of the two (2) replacement paramedic squad vehicles. The purchase was approved in FY 14/15 by Council at the 8/26/14 meeting as a 'piggy-back' on Riverside County's competitive bid. The squads will replace two aging vehicles, one 22 years old, and one 24 years old; useful, frontline emergency life of a squad is considered to be 10 years with an additional 5-10 years as a reserve vehicle. These vehicles are used daily for response, special event staffing, training, and serving as additional resources during emergency events.
Fire	1010	Transfers in - from EQUIP REPLACEMENT (FURN & EQUIP)	1010-99-99-91010-807510	0	77,417	$ 77,417	Request is to cover required advanced life support (ALS) and other rescue-related equipment for both squads.
Public Works	1010	Transfers in - from FLEET OPS REPLACEMENT RESERVE	1010-99-99-91010-807430	2,547,650	1,755,532	$ 4,303,182	Carryover requested for the following vehicle purchases that are ordered but not yet received: (3) Signal Bucket Trucks: PO# 2017-0001 (2) Street Sweepers: PO#2017-0002 (2) Stakebed trucks: PO# 2017-0028 Tree Truck: PO# 2016-1294 Ram Truck test purchase: PO# 2016-1430 (4) Dump Trucks: PO# 2017-0013 & PO# 2017-2017-0020
REVENUE TOTAL				**$ 2,547,650**	**$ 1,860,909**	**$ 4,408,559**	

CITY OF MORENO VALLEY
NON-GENERAL FUND
FY 2016/17 Proposed Carryovers

Department	Fund	Account Description	GL Account	FY 2016/17 Amended Budget	Proposed Carryover	Revised Budget	Description - Proposed Adjustment
Administrative Services	7310	Professional Svcs - Other	7310-18-40-18411-620299	$ 20,300.00	$ 12,837.00	$ 33,137.00	New furniture for new Community Development Director has been identified and will be ordered once these funds are approved for use.
Administrative Services	2300	Professiona Svcs - Veterinary Svcs	2300-18-38-73312-620250	0.00	3,164.00	3,164.00	CA State Spay-Neuter Grant - Must be used soley for Spay-Neuter Services performed on pets in the communityand cannot be used for animals at shelter.
Financial & Management Svcs	2514	ESG Programs	2514-30-36-72751-733210	168,213.00	406,706.00	574,919.00	Remaining Emergency Solutions grant funds to be reimbursed. Formerly in funds 2300-30-33-72751-733209 and 2300-30-33-72751-733210
Fire	7510	Transfers to GENERAL FUND	7510-99-97-88110-901010	0.00	27,960.00	27,960.00	Request is to cover remaining upfit and outfit of the the two (2) replacement paramedic squad vehicles. The purchase was approved in FY 14/15 by Council at the 8/26/14 meeting as a 'piggy-back' on Riverside County's competitive bid. The squads will replace two aging vehicles, one 22 years old, and one 24 years old; useful, frontline emergency life of a squad is considered to be 10 years with an additional 5-10 years as a reserve vehicle. These vehicles are used daily for response, special event staffing, training, and serving as additional resources during emergency events.
Fire	7510	Transfers to GENERAL FUND	7510-99-97-88110-901010	0.00	77,417.00	77,417.00	Request is to cover required advanced life support (ALS) and other rescue-related equipment for both squads.
Parks & Comm Services	2300	Maint & Repair - Improvements	2300-50-57-35214-620920	0.00	454,501.00	454,501.00	Continuing Parks Project - JFK RENO - Grant Funded
Parks & Comm Services	2300	Maint & Repair - Improvements	2300-50-58-35313-620920	0.00	13,172.00	13,172.00	Continuing Parks Project - CRC THEATER - Grant Funded
Financial & Management Svcs	6011	CIP Equipment	6011-30-80-80005-720140	0.00	480,387.00	480,387.00	ENCO work authorization (Kitching Substation).
City Manager	7220	Salaries, Temporary	7220-16-39-25455-611310	0.00	175,770.00	175,770.00	Year 3 of 5 year contract w/ Accela on ACP project, expenses will occur for several more years
City Manager	7220	Professional Svcs - Other	7220-16-39-25455-620299	0.00	36,355.00	36,355.00	Year 3 of 5 year contract w/ Accela on ACP project, expenses will occur for several more years
City Manager	7220	Software Maint/Support/License	7220-16-39-25455-625010	0.00	298,859.00	298,859.00	Year 3 of 5 year contract w/ Accela on ACP project, expenses will occur for several more years
City Manager	7220	General Contingency Rsrv.	7220-16-39-25455-700236	0.00	191,920.00	191,920.00	Year 3 of 5 year contract w/ Accela on ACP project, expenses will occur for several more years
Public Works	7430	Transfers to GENERAL FUND	7430-99-99-97430-901010	2,547,650.00	1,755,532.00	4,303,182.00	Carryover requested for the following vehicle purchases that are oreder but not yet received: (3) Signal Bucket Trucks: PO# 2017-0001 (2) Street Sweepers: PO#2017-0002 (2) Stakebed trucks: PO# 2017-0028 Tree Truck: PO# 2016-1294 Ram Truck test purchase: PO# 2016-1430 (4) Dump Trucks: PO# 2017-0013 & PO# 2017-2017-0020
EXPENSES TOTAL				**$ 2,715,863.00**	**$ 3,934,580.00**	**$ 6,637,606.00**	

Administrative Services	2300	State Grant-Operating Revenue	2300-18-38-73312-486000	$ -	$ 3,164.00	$ 3,164.00	CA State Spay-Neuter Grant - Must be used soley for Spay-Neuter Services performed on pets in the communityand cannot be used for animals at shelter.
Parks & Comm Services	2300	State Grant-Capital Revenue	2300-50-57-35214-486010	0.00	454,501.00	454,501.00	Continuing Parks Project - JFK RENO - Grant Funded
Parks & Comm Services	2300	State Grant-Capital Revenue	2300-50-58-35313-486010	0.00	13,172.00	13,172.00	Continuing Parks Project - CRC THEATER - Grant Funded
REVENUE TOTAL				**$ -**	**$ 470,837.00**	**$ 470,837.00**	

CITY OF MORENO VALLEY
General Fund
FY 2016/17 Proposed Capital Improvement Plan (CIP) Carryovers

Department	Fund	Account Description	General Ledger (GL) Account	Fiscal Year (FY) 2016/17 Amended Budget	Proposed Carryover	Revised Budget	Project
Public Works	1010	CIP Other	1010-70-77-80001-720199	$ 24,000	$ (18,813)	$ 5,187.00	Public Works Highland Fairview (HLFV) Interchanges - Continuing CIP Project
Public Works	1010	CIP Other	1010-70-77-80004-720199	185,000	36,391	221,391.00	Hubbard St. Storm Drain - Continuing CIP Project
Public Works	1010	CIP Other	1010-70-77-80004-720199	185,000	24,832	209,832.00	Cottonwood Basin - Continuing CIP Project
TOTAL				**1,217,403**	**42,410**	**436,410.00**	

CITY OF MORENO VALLEY
Non-General Fund
FY 2016/17 Proposed Capital Improvement Plan (CIP) Carryovers

Public Works	2001	CIP Other	2001-70-76-80001-720199	234,475	1,519	235,994.00	Residential Traffic Management Program (Speed Humps) - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-76-80001-720199	234,475	305	234,780.00	Bike Lane Improvements - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-76-80008-720199	378,453	62,762	441,215.00	Traffic Signal Equipment / Upgrades - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-76-80008-720199	378,453	22,810	401,263.00	Dynamic TrAve.ler Alert Message Boards - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-76-80008-720199	378,453	19,846	398,299.00	Pedestrian Hybrid Beacon on Cactus Ave. at Woodland Park - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80001-720199	6,134,043	556,729	6,690,772.00	Citywide Annual Pavement Resurfacing Surface Transportation Program (STP) - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80001-720199	6,134,043	79,470	6,213,513.00	Annual Americans with Disabilities Act (ADA) Compliant Curb Ramp Upgrades - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80001-720199	6,134,043	(7,076)	6,126,967.00	Reche Vista Dr. Realignment / Perris Blvd. / Heacock St. to Not City Limit - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80001-720199	6,134,043	4,795	6,138,838.00	St. Improvement Program (SIP) - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80001-720199	6,134,043	11,540	6,145,583.00	St. Improvement Program Highway Mitigation Grant Program (HMPG) - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80001-720199	6,134,043	139,448	6,273,491.00	Heacock St. / Perris Valley Storm Drain Lateral A to Cactus Ave. - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80001-720199	6,134,043	92,534	6,226,577.00	Perris Blvd. Widening / Ironwood Ave. to Manzanita Ave. - State Local Partnership Program (SLPP) - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80001-720199	6,134,043	8,872	6,142,915.00	State Route-60 / Moreno Beach Dr South Side of Interchange (Phase 1) - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80001-720199	6,134,043	(309,171)	5,824,872.00	Sunnymead Blvd. / State Route-60 East Bound Onramp Intersection Improvements - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80001-720199	6,134,043	21,608	6,155,651.00	Alessandro Blvd. / Elsworth St. Intersection Improvements - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80001-720199	6,134,043	397,882	6,531,925.00	State Route-60 / Theodore St. Interchange - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80001-720199	6,134,043	11,204	6,145,247.00	Cycle 1 Active Transportation Program (ATP) Citywide Safe Routes to School (SRTS) Pedestrian Facility Improvements - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80001-720199	6,134,043	1,061	6,135,104.00	Property Acquisition for St. Purposes - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80001-720199	6,134,043	7,646	6,141,689.00	Alessandro Blvd. Entry Monument Signs - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80002-720199	370,300	(300)	370,000.00	Bridge Repair Maintenance Program - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80004-720199	1,231,214	54,322	1,285,536.00	Heacock St. Channel Improvements - Continuing CIP Project
Public Works	2001	CIP Other	2001-70-77-80004-720199	1,231,214	(18,739)	1,212,475.00	San Timoteo Foothill Storm Drain K-1 and K-4 Area Drainage Program (ADP) - Continuing CIP Project
Public Works	2005	CIP Other	2005-70-76-80008-720199	83,695	(5,796)	77,899.00	Traffic Signal Coordination Program - Continuing CIP Project
Public Works	2301	CIP Other	2301-70-76-80001-720199	448,400	2,000	450,400.00	Bicycle Infrastructure and Education - Continuing CIP Project
Public Works	2301	CIP Other	2301-70-76-80008-720199	6,897,900	10,000	6,907,900.00	Advanced Dilemma Zone Detection at Certain Intersections - Continuing CIP Project
Public Works	2301	CIP Other	2301-70-76-80008-720199	6,897,900	2,000	6,899,900.00	Road Safety Audit on Ironwood Ave. between Vista De Cerros Dr. and Nason St. - Continuing CIP Project
Public Works	2301	CIP Other	2301-70-76-80008-720199	6,897,900	2,000	6,899,900.00	Road Safety Audit on Kitching St. between Sunnymead Blvd. and Alessandro Blvd. - Continuing CIP Project
Public Works	2301	CIP Other	2301-70-76-80010-720199	100,294	6,660	106,954.00	Community Enhancement Program - Continuing CIP Project
Public Works	2301	CIP Other	2301-70-77-80001-720199	4,406,978	358,100	4,765,078.00	State Route-60 / Theodore St. Interchange - Continuing CIP Project
Public Works	2301	CIP Other	2301-70-77-80001-720199	4,406,978	(45,931)	4,361,047.00	Alessandro Blvd. Improvements at Chagall Ct. and at Graham St. - Continuing CIP Project
Public Works	2301	CIP Other	2301-70-77-80001-720199	4,406,978	95,000	4,501,978.00	Cycle 1 Active Transportation Program (ATP) Citywide Safe Routes to School (SRTS) Pedestrian Facility Improvements - Continuing CIP Project

CITY OF MORENO VALLEY
General Fund
FY 2016/17 Proposed Capital Improvement Plan (CIP) Carryovers

Department	Fund	Account Description	General Ledger (GL) Account	Fiscal Year (FY) 2016/17 Amended Budget	Proposed Carryover	Revised Budget	Project
Public Works	2301	CIP Other	2301-70-77-80001-720199	4,406,978	(25,184)	4,381,794.00	Aqueduct Trail Study (Juan Bautista de Anza Trail) - Continuing CIP Project
Public Works	2512	CIP Other	2512-70-77-80001-720199	1,685,246	77,582	1,762,828.00	Elsworth St. and Sherman Ave. Sidewalk Improvements - Continuing CIP Project
Public Works	2512	CIP Other	2512-70-77-80001-720199	1,685,246	20,499	1,705,745.00	John F. Kennedy Dr. Improvements / Heacock St. to Paige Ave. - Continuing CIP Project
Public Works	2512	CIP Other	2512-70-77-80001-720199	1,685,246	9,393	1,694,639.00	Farragut Ave. / Sherman Ave. to Elsworth St. - Continuing CIP Project
Public Works	2512	CIP Other	2512-70-77-80001-720199	1,685,246	(15,064)	1,670,182.00	Cycle 6 Americans with Disabilities Act (ADA) Pedestrian Ramp Improvements - Continuing CIP Project
Public Works	2512	CIP Other	2512-70-77-80004-720199	339,809	15,530	355,339.00	Sunnymead Master Drainage Plan Storm Drain Lines F and F7 - Continuing CIP Project
Public Works	2800	CIP Other	2800-70-77-80001-720199	262,000	20,179	282,179.00	Cycle 7 Citywide Pedestrian and Bicycle Facility Improvements - Continuing CIP Project
Public Works	3000	CIP Other	3000-70-77-80003-720199	160,000	(160,000)	0.00	Corporate Yard Facility - Phase 1 - Continuing CIP Project
Public Works	3000	CIP Other	3000-70-77-80004-720199	705,172	(110,711)	594,461.00	Heacock St. Channel Improvements - Continuing CIP Project
Public Works	3002	CIP Other	3002-70-77-80001-720199	1,599,883	(551)	1,599,332.00	Street Improvement Program Riverside County Flood Control (RCFC) - Continuing CIP Project
Public Works	3002	CIP Other	3002-70-77-80001-720199	1,599,883	6,500	1,606,383.00	Heacock St. / San Michele Rd. to Perris Valley Storm Drain Lateral A - Continuing CIP Project
Public Works	3002	CIP Other	3002-70-77-80004-720199	1,714,237	8,043	1,722,280.00	San Timoteo Foothill Storm Drain K-1 and K-4 Highway Mitigation Grant Program (HMGP) - Continuing CIP Project
Public Works	3003	CIP Other	3003-70-77-80001-720199	2,765,500	(100,000)	2,665,500.00	Perris Blvd. Widening / Ironwood Ave. to Manzanita Ave. - Continuing CIP Project- Continuing CIP Project
Public Works	3005	CIP Other	3005-70-77-80003-720199	1,000	1,400	2,400.00	Remodel Fire Station #48 - Sunnymead Ranch - Continuing CIP Project
Public Works	3006	CIP Other	3006-50-57-80003-720199	340,000	2,150	342,150.00	Conference and Recreation Center Lease Space Renovation - Continuing CIP Project
Public Works	3006	CIP Other	3006-50-57-80003-720199	340,000	9,799	349,799.00	Cottonwood Recreation Center Exterior Building Upgrade - Continuing CIP Project
Public Works	3006	CIP Other	3006-50-57-80003-720199	340,000	(63,471)	276,529.00	Cottonwood Recreation Center Renovation Phase II - Continuing CIP Project
Public Works	3006	CIP Other	3006-50-57-80003-720199	340,000	13,097	353,097.00	Park Restroom Renovations - Continuing CIP Project
Public Works	3006	CIP Other	3006-50-57-80003-720199	340,000	54	340,054.00	Towngate Community Center Renovation - Continuing CIP Project
Public Works	3006	CIP Other	3006-50-57-80007-720199	2,186,591	(556)	2,186,035.00	Security Cameras at Lasselle Sports Park and Celebration Park - Continuing CIP Project
Public Works	3006	CIP Other	3006-50-57-80007-720199	2,186,591	12,169	2,198,760.00	Rancho Verde Park - Continuing CIP Project
Public Works	3006	CIP Other	3006-50-57-80007-720199	2,186,591	2,325	2,188,916.00	Hidden Springs Park II - Continuing CIP Project
Public Works	3006	CIP Other	3006-50-57-80007-720199	2,186,591	10,393	2,196,984.00	Shadow Mountain Park Play Equipment - Continuing CIP Project
Public Works	3006	CIP Other	3006-50-57-80007-720199	2,186,591	(1,285)	2,185,306.00	Replacement Playground Equipment - Continuing CIP Project
Public Works	3006	CIP Other	3006-50-57-80007-720199	2,186,591	(5,964)	2,180,627.00	Annual Americans with Disabilities Act (ADA) Park Improvements - Continuing CIP Project
Public Works	3006	CIP Other	3006-50-57-80007-720199	2,186,591	7,415	2,194,006.00	Civic Center Electrical Upgrades - Continuing CIP Project
Public Works	3006	CIP Other	3006-50-57-80007-720199	2,186,591	2,123	2,188,714.00	Cottonwood Recreation Center Exterior Landscaping - Continuing CIP Project
Public Works	3008	CIP Other	3008-70-77-80001-720199	300,000	583,438	883,438.00	Reche Vista Dr. Realignment / Perris Blvd. / Heacock St. to Not City Limits (NCL) - Continuing CIP Project
Public Works	3008	CIP Other	3008-70-77-80001-720199	300,000	160,000	460,000.00	State Route-60 / Moreno Beach Dr. South Side of Interchange (Phase 1) - Continuing CIP Project
Public Works	3302	CIP Other	3302-70-76-80008-720199	929,705	60,674	990,379.00	Citywide Pedestrian Countdown Signal Head Improvements - Continuing CIP Project
Public Works	3302	CIP Other	3302-70-76-80008-720199	929,705	41,600	971,305.00	Intelligent Transportation System (ITS) Deployment Phase IB - Continuing CIP Project
Public Works	3302	CIP Other	3302-70-77-80008-720199	451,672	47,237	498,909.00	Sunnymead Blvd. / State Route-60 East Bound On-Ramp Intersection Improvements - Continuing CIP Project
Public Works	3311	CIP Other	3311-70-77-80001-720199	159,185	(14,611)	144,574.00	State Route-60 / Redlands Blvd. Interchange - Continuing CIP Project
Public Works	3411	CIP Other	3411-70-77-80001-720199	1,217,744	(71,730)	1,146,014.00	Nason St. / Cactus Ave. to Fir Ave. - Continuing CIP Project
Public Works	3411	CIP Other	3411-70-77-80001-720199	1,217,744	(289,149)	928,595.00	Citywide Annual Pavement Resurfacing - Continuing CIP Project
Public Works	3411	CIP Other	3411-70-77-80001-720199	1,217,744	(119,729)	1,098,015.00	Reche Vista Dr. Realignment / Perris Blvd. / Heacock St. to Not City Limits (NCL) - Continuing CIP Project
Public Works	6011	CIP Other	6011-30-80-80005-720199	18,459,000	3,715	18,462,715.00	Electric Vehicle Charging Station (City Hall) - Continuing CIP Project
Public Works	6011	CIP Other	6011-30-80-80005-720199	18,459,000	(639,579)	17,819,421.00	Kitching Substation and Southern California Edison Switchyard/Facility Upgrades - Continuing CIP Project
Public Works	6011	CIP Other	6011-30-80-80005-720199	18,459,000	(8,552)	18,450,448.00	Kitching Substation Feeder Line - Substation N on Kitching St. & East to Lasselle Sports Park - Continuing CIP Project
Public Works	6011	CIP Other	6011-30-80-80005-720199	18,459,000	(520,000)	17,939,000.00	City Hall and Library Solar Carports - Continuing CIP Project
Public Works	6011	CIP Other	6011-30-80-80005-720199	18,459,000	(7,061)	18,451,939.00	Kitching Substation Feeder Line - Rivard Rd. and Perris Blvd. via Edwin Rd. and Perris Blvd. - Continuing CIP Project
Public Works	6011	CIP Other	6011-30-80-80005-720199	18,459,000	(5,241)	18,453,759.00	Kitching Substation Feeder Line - South on Kitching, West on Globe to Industrial Bldg.

CITY OF MORENO VALLEY
General Fund
FY 2016/17 Proposed Capital Improvement Plan (CIP) Carryovers

Department	Fund	Account Description	General Ledger (GL) Account	Fiscal Year (FY) 2016/17 Amended Budget	Proposed Carryover	Revised Budget	Project
Public Works	6011	CIP Other	6011-30-80-80005-720199	18,459,000	(14,620)	18,444,380.00	Kitching Substation Feeder Line - South on Kitching, West on Modular Way to Perris Blvd. - Continuing CIP Project
Public Works	7220	CIP Other	7220-16-39-80003-720199	516,099	60,701	576,800.00	Box Springs Communications Site - Continuing CIP Project
Public Works	7220	CIP Other	7220-16-39-80009-720199	84,940	(37,637)	47,303.00	Citywide Fiber Optic Communications Expansion - Continuing CIP Project
Public Works	7220	CIP Other	7220-30-39-80003-720199	-	5,851	5,851.00	Box Springs Communications Site - Continuing CIP Project
Public Works	2301	CIP Other	2301-70-77-80001-720199	4,406,978	16,449	4,423,427.00	Cactus Ave EB 3rd Lane Improvements/Veterans Way to Heacock Street
TOTAL				**$ 305,293,352**	**$ 570,721**	**305,864,073.00**	

Attachment: CSD Resolution 2017-01 [Revision 1] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

RESOLUTION NO. CSD 2017-01

A RESOLUTION OF THE MORENO VALLEY COMMUNITY SERVICES DISTRICT OF THE CITY OF MORENO VALLEY, CALIFORNIA, ADOPTING THE REVISED OPERATING AND CAPITAL BUDGETS FOR FISCAL YEAR 2016/17

WHEREAS, the CSD Board approved the Operating and Capital Budgets for the City for Fiscal Year 2016/17, a copy of which, as may have been amended by the CSD Board, is on file in the Office of the City Clerk and is available for public inspection; and

WHEREAS, the CSD Board approves amendments to the budgets throughout the fiscal year and such prior amendments are reflected within the current amended budget and further ratified as part of the adoption of the 1st Quarter budget amendments; and

WHEREAS, the City Manager has heretofore submitted to the President and Board Members of the Moreno Valley Community Services District proposed amendments to the Operating and Capital Budgets for the District for Fiscal Year 2016/17, a copy of which, as may have been amended by the District's Board of Directors, is on file in the Office of the City Clerk and is available for public inspection; and

WHEREAS, the said proposed amendments to the Operating and Capital Budgets contain estimates of the services, activities and projects comprising the budget, and contain expenditure requirements and the resources available to the Community Services District; and

WHEREAS, the said proposed amendments to the Operating and Capital Budgets contain the estimates of uses of fund balance as required to stabilize the delivery of CSD services during periods of operational deficits; and

WHEREAS, the President and Board of Directors have made such revisions to the proposed amended Operating and Capital Budgets as so desired; and

WHEREAS, the amended Operating and Capital Budgets, as herein approved, will enable the Community Services District to make adequate financial plans and will ensure that District officers can administer their respective functions in accordance with such plans.

NOW, THEREFORE, THE MORENO VALLEY COMMUNITY SERVICES DISTRICT OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

1. The proposed amendments to the Operating and Capital Budgets, as Exhibits

A, B and C to this Resolution and as on file in the Office of the City Clerk, and as may have been amended by the Community Services District's Board of Directors, is hereby approved and adopted as the annual Operating and Capital Budgets of the Moreno Valley Community Services District for the Fiscal Year 2016/17.

2. The amounts of proposed expenditures, which include the uses of fund balance specified in the approved budget, are hereby appropriated for the various budget programs and units for said fiscal year.

3. Pursuant to Section 61047 of the California Government Code, compensation for the City Council acting in the capacity of the Directors of the Community Services District, shall be $100 per meeting or for each day's service rendered as a Director, not to exceed six days or $600 in any calendar month. In addition, the Directors shall be compensated for actual and necessary traveling and incidental expenses incurred while on official business.

4. Within fifteen (15) days after the adoption of this Resolution, the City Clerk shall certify to the adoption hereof and, as so certified, cause a copy to be posted in at least three (3) public places within the City.

BE IT FURTHER RESOLVED that this Resolution shall take effect immediately upon its adoption.

APPROVED AND ADOPTED this 7th day of February, 2017.

_____
Mayor of the City of Moreno Valley,
Acting in the capacity of President of the
Moreno Valley Community Services District

ATTEST:

_____
Interim City Clerk, acting in the capacity of
Secretary of the Moreno Valley
Community Services District

APPROVED AS TO FORM:

_____
City Attorney, acting in the capacity
of General Counsel of the Moreno
Valley Community Services District

Attachment: CSD Resolution 2017-01 [Revision 1] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

Attachment: CSD Resolution 2017-01 [Revision 1] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

RESOLUTION JURAT

STATE OF CALIFORNIA)

COUNTY OF RIVERSIDE) ss.

CITY OF MORENO VALLEY)

I, Marie Macias, Secretary of the Moreno Valley Community Services District, Moreno Valley, California do hereby certify that Resolution No. CSD 2017-01 was duly and regularly adopted by the Board of Directors of the Moreno Valley Community Services District at a regular meeting held on the 7th day of February, 2017, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

(Board members, Vice-President and President)

_____

SECRETARY

(SEAL)

Attachment: Housing Resolution 2017-02 [Revision 1] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

RESOLUTION NO. HA 2017-02

A RESOLUTION OF THE HOUSING AUTHORITY OF THE CITY OF MORENO VALLEY, CALIFORNIA, ADOPTING THE REVISED OPERATING AND CAPITAL BUDGETS FOR FISCAL YEAR 2016/17

WHEREAS, the Housing Authority approved the Operating and Capital Budgets for the City for Fiscal Year 2016/17, a copy of which, as may have been amended by the Housing Authority, is on file in the Office of the City Clerk and is available for public inspection; and

WHEREAS, the Housing Authority approves amendments to the budgets throughout the fiscal year and such prior amendments are reflected within the current amended budget and further ratified as part of the adoption of the 1st Quarter budget amendments; and

WHEREAS, the City Manager has heretofore submitted to the Housing Authority proposed amendments to the Operating and Capital Budgets for the District for Fiscal Year 2016/17, a copy of which, as may have been amended by the Housing Authority, is on file in the Office of the City Clerk and is available for public inspection; and

WHEREAS, the said proposed amendments to the Operating and Capital Budgets contain estimates of the services, activities and projects comprising the budget, and contain expenditure requirements and the resources available to the Housing Authority; and

WHEREAS, the said proposed amendments to the Operating and Capital Budgets contain the estimates of uses of fund balance as required to stabilize the delivery of Housing Authority services during periods of operational deficits; and

WHEREAS, the Housing Authority have made such revisions to the proposed amended Operating and Capital Budgets as so desired; and

WHEREAS, the amended Operating and Capital Budgets, as herein approved, will enable the Housing Authority to make adequate financial plans and will ensure that District officers can administer their respective functions in accordance with such plans.

NOW, THEREFORE, THE HOUSING AUTHORITY OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

1. The proposed amendments to the Operating and Capital Budgets, as Exhibits A, B and C to this Resolution and as on file in the Office of the City Clerk, and as may have been amended by the Housing Authority, is hereby approved and adopted as the annual Operating and Capital Budgets of the Moreno Valley Housing Authority for the Fiscal Year 2016/17.

Attachment: Housing Resolution 2017-02 [Revision 1] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

2. The amounts of proposed expenditures, which include the uses of fund balance specified in the approved budget, are hereby appropriated for the various budget programs and units for said fiscal year.

3. Pursuant to Section 61047 of the California Government Code, compensation for the City Council acting in the capacity of the Housing Authority, shall be $100 per meeting or for each day's service rendered as a Director, not to exceed six days or $600 in any calendar month. In addition, the Directors shall be compensated for actual and necessary traveling and incidental expenses incurred while on official business.

4. Within fifteen (15) days after the adoption of this Resolution, the City Clerk shall certify to the adoption hereof and, as so certified, cause a copy to be posted in at least three (3) public places within the City.

BE IT FURTHER RESOLVED that this Resolution shall take effect immediately upon its adoption.

APPROVED AND ADOPTED this 7th day of February, 2017.

_____
Mayor of the City of Moreno Valley,
Acting in the capacity of Chairman of the
Housing Authority

ATTEST:

_____
Interim City Clerk, acting in the capacity of
Secretary of the Housing Authority

APPROVED AS TO FORM:

_____
City Attorney, acting in the capacity of
General Counsel of the Housing Authority

Attachment: Housing Resolution 2017-02 [Revision 1] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

RESOLUTION JURAT

STATE OF CALIFORNIA)

COUNTY OF RIVERSIDE) ss.

CITY OF MORENO VALLEY)

I, Marie Macias, Secretary of the Housing Authority, Moreno Valley, California do hereby certify that Resolution No. HA 2017-02 was duly and regularly adopted by the Commissioners of the Housing Authority at a regular meeting held on the 7th day of February, 2017, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

(Commissioners, Vice Chairperson and Chairperson)

_____

SECRETARY

(SEAL)

RESOLUTION NO. SA 2017-01

A RESOLUTION OF THE SUCCESSOR AGENCY TO THE COMMUNITY REDEVELOPMENT AGENCY OF THE CITY OF MORENO VALLEY OF THE CITY OF MORENO VALLEY, CALIFORNIA, ADOPTING THE REVISED OPERATING AND CAPITAL BUDGETS FOR FISCAL YEAR 2016/17

WHEREAS, the Mayor and City Council of the City of Moreno Valley as Successor Agency to the Community Redevelopment Agency of the City of Moreno Valley approved the Operating and Capital Budgets for the City for Fiscal Year 2016/17, a copy of which, as may have been amended by the Successor Agency to the Community Redevelopment Agency of the City of Moreno Valley, is on file in the Office of the City Clerk and is available for public inspection; and

WHEREAS, the Mayor and City Council of the City of Moreno Valley as Successor Agency to the Community Redevelopment Agency of the City of Moreno Valley approves amendments to the budgets throughout the fiscal year and such prior amendments are reflected within the current amended budget and further ratified as part of the adoption of the 1st Quarter budget amendments; and

WHEREAS, the City Manager has heretofore submitted to the Mayor and City Council of the City Moreno Valley as Successor Agency to the Community Redevelopment Agency of the City of Moreno Valley proposed amendments to the Operating and Capital Budgets for the Agency for Fiscal Year 2016/17, a copy of which, as may have been amended by the Successor Agency to the Community Redevelopment Agency of the City of Moreno Valley, is on file in the Office of the City Clerk and is available for public inspection; and

WHEREAS, the said proposed amendments to the Operating and Capital Budgets contain estimates of the services, activities and projects comprising the budget, and contain expenditure requirements and the resources available to the Successor Agency; and

WHEREAS, the said proposed amendments to the Operating and Capital Budgets contain the estimates of uses of fund balance as required to stabilize the delivery of Successor Agency to the Community Redevelopment Agency of the City of Moreno Valley services during periods of operational deficits; and

WHEREAS, the Mayor and City Council have made such revisions to the proposed amended Operating and Capital Budgets as so desired; and

WHEREAS, the amended Operating and Capital Budgets, as herein approved, will enable the Successor Agency to the Community Redevelopment Agency of the City of Moreno Valley to make adequate financial plans and will ensure that City officers can

Attachment: SA Resolution 2017-01 [Revision 1] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

administer their respective functions in accordance with such plans.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

1. The proposed amendments to the Operating and Capital Budgets, as Exhibits A, B and C to this Resolution and as on file in the Office of the City Clerk, and as may have been amended by the Successor Agency to the Community Redevelopment Agency of the City of Moreno Valley, is hereby approved and adopted as the annual Operating and Capital Budgets of the Moreno Valley Successor Agency to the Community Redevelopment Agency of the City of Moreno Valley for the Fiscal Year 2016/17.

2. The amounts of proposed expenditures, which include the uses of fund balance specified in the approved budget, are hereby appropriated for the various budget programs and units for said fiscal year.

3. Pursuant to Section 61047 of the California Government Code, compensation for the City Council acting in the capacity of the Successor Agency to the Community Redevelopment Agency of the City of Moreno Valley, shall be $100 per meeting or for each day's service rendered as a Director, not to exceed six days or $600 in any calendar month. In addition, the Directors shall be compensated for actual and necessary traveling and incidental expenses incurred while on official business.

4. Within fifteen (15) days after the adoption of this Resolution, the City Clerk shall certify to the adoption hereof and, as so certified, cause a copy to be posted in at least three (3) public places within the City.

BE IT FURTHER RESOLVED that this Resolution shall take effect immediately upon its adoption.

APPROVED AND ADOPTED this 7th day of February, 2017.

_____
Mayor of the City of Moreno Valley

ATTEST:

_____
Interim City Clerk

Attachment: SA Resolution 2017-01 [Revision 1] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

APPROVED AS TO FORM:

_____
City Attorney

Attachment: SA Resolution 2017-01 [Revision 1] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

Attachment: SA Resolution 2017-01 [Revision 1] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST

RESOLUTION JURAT

STATE OF CALIFORNIA)

COUNTY OF RIVERSIDE) ss.

CITY OF MORENO VALLEY)

I, Marie Macias, MMC, Interim City Clerk of the City of Moreno Valley, California do hereby certify that Resolution No. SA 2017-01 was duly and regularly adopted by the City Council of the City of Moreno Valley at a regular meeting held on the 7th day of February, 2017, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

(Council Members, Mayor Pro Tem and Mayor)

_____

SECRETARY

(SEAL)

City of Moreno Valley
FY 2015/16 - 2016/17
City Position Summary

Position Title	FY 2010/11 No.	FY 2011/12 Adj.	FY 2011/12 No.	FY 2012/13 Adj.	FY 2012/13 No.	FY 2013/14 Adj.	FY 2013/14 No.	FY 2014/15 Adj.	FY 2014/15 No.	FY 2015/16 Adj.	FY 2015/16 No.	FY 2016/17 Adj.	FY 2016/17 No.
Accountant I	2	-	2	-	2	-	2	-	2	(1)	1	-	1
Accountant II	-		-		-		-	1	1	-	1	-	1
Accounting Asst	5	(2)	3	-	3	-	3	-	3	-	3	-	3
Accounting Technician	4	-	4	-	4	(1)	3	-	3	(1)	2	-	2
Accounts Payable Supervisor	1	-	1	-	1	-	1	-	1	-	1	-	1
Administrative Asst	5	-	5	-	5	3	8	(1)	7	-	7	1	8
Administrative Services Dir	1	-	1	-	1	-	1	-	1	-	1	-	1
After School Prog Coordinator	4	(4)	-	-	-	-	-	-	-	-	-	-	-
After School Prog Specialist	8	(8)	-	-	-	-	-	-	-	-	-	-	-
After School Prog Supervisor	1	(1)	-	-	-	-	-	-	-	-	-	-	-
Animal Care Technician	4	-	4	-	4	-	4	-	4	1	5	-	5
Animal Control Officer	7	-	7	-	7	-	7	-	7	-	7	-	7
Animal Rescue Coordinator	-	-	-	-	-	-	-	-	-	1	1	-	1
Animal Services Asst	2	-	2	-	2	-	2	-	2	2	4	-	4
Animal Svcs Dispatcher	2	(1)	1	-	1	1	2	-	2	(1)	1	-	1
Animal Svcs Division Manager	1	-	1	-	1	-	1	-	1	-	1	-	1
Animal Svcs Field Supervisor	1	-	1	-	1	-	1	-	1	-	1	-	1
Animal Svcs License Inspector	1	-	1	-	1	-	1	-	1	-	1	-	1
Animal Svcs Office Supervisor	1	-	1	-	1	-	1	-	1	-	1	-	1
Applications & DB Admin	1	-	1	-	1	-	1	-	1	-	1	-	1
Applications Analyst	1	-	1	-	1	-	1	-	1	-	1	-	1
Assistant City Attorney	-	-	-	-	-	-	-	-	-	1	1	-	1
Assistant City Clerk	-	-	-	-	-	-	-	-	-	-	-	-	-
Assoc Environmental Engineer	1	-	1	-	1	-	1	-	1	-	1	-	1
Associate Engineer	6	(1)	5	-	5	-	5	-	5	(1)	4	-	4
Associate Planner	4	-	4	-	4	-	4	-	4	-	4	-	4
Asst Buyer	2	-	2	-	2	-	2	-	2	-	2	-	2
Asst City Manager	1	-	1	-	1	-	1	-	1	-	1	-	1
Asst Crossing Guard Spvr	1	-	1	-	1	-	1	-	1	-	1	-	1
Asst Network Administrator	1	-	1	-	1	-	1	-	1	-	1	-	1
Asst to the City Manager	1	-	1	-	1	-	1	-	1	(1)	-	-	-
Asst. Applications Analyst	-	-	-	-	-	-	-	-	-	-	-	-	-
Banquet Facility Rep	1	-	1	-	1	-	1	-	1	-	1	-	1
Budget Officer	1	(1)	-	1	1	(1)	-	-	-	-	-	-	-
Building & Neighborhood Services Div Mgr	-	-	-	-	-	1	1	-	1	(1)	-	-	-
Building Safety Supervisor	-		-	-	-	-	-	-	-	1	1	-	1
Building Div Mgr / Official	1	-	1	-	1	(1)	-	-	-	-	-	-	-
Building Inspector I I	4	-	4	-	4	-	4	-	4	-	4	-	4
Business License Liaison	-	-	-	-	-	-	-	-	-	1	1	-	1
Bus. Support & Neigh Prog Admin	1	-	1	-	1	(1)	-	-	-	-	-	-	-
Cable TV Producer	2	-	2	-	2	-	2	-	2	-	2	-	2
Capital Projects Division Manager/Assitant City Engineer	-	-	-	-	-	-	-	-	-	-	-	1	1
Chief Financial Officer/City Treas	1	-	1	-	1	-	1	-	1	-	1	-	1
Child Care Asst	5	-	5	-	5	(1)	4	-	4	-	4	-	4
Child Care Instructor I I	5	-	5	-	5	(1)	4	-	4	-	4	-	4
Child Care Program Manager	1	-	1	-	1	-	1	-	1	-	1	-	1
Child Care Site Supervisor	5	-	5	-	5	(1)	4	-	4	-	4	-	4
City Attorney	1	-	1	-	1	-	1	-	1	-	1	-	1
City Clerk	1	-	1	-	1	-	1	-	1	-	1	-	1
City Manager	1	-	1	-	1	-	1	-	1	-	1	-	1
Code & Neigh Svcs Official	1	-	1	-	1	(1)	-	-	-	-	-	-	-
Code Compliance Field Sup.	-	-	-	-	-	1	1	-	1	-	1	-	1
Code Compliance Officer I/I I	5	-	5	-	5	1	6	-	6	-	6	-	6
Code Supervisor	-	-	-	-	-	-	-	-	-	-	-	-	-
Comm & Economic Dev Director	1	-	1	-	1	-	1	(1)	-	-	-	-	-
Community Dev Director	1	(1)	-	-	-	-	-	1	1	-	1	-	1
Community Services Coordinator	-	-	-	-	-	-	-	-	-	-	-	3	3
Community Svcs Supervisor	1	-	1	-	1	-	1	-	1	-	1	-	1
Construction Inspector	4	1	5	-	5	-	5	-	5	-	5	-	5
Crossing Guard	35	-	35	-	35	-	35	-	35	-	35	-	35
Crossing Guard Supervisor	1	-	1	-	1	-	1	-	1	-	1	-	1
Customer Service Asst	1	-	1	-	1	(1)	-	-	-	-	-	-	-
Dep PW Dir /Asst City Engineer	1	-	1	-	1	-	1	-	1	-	1	(1)	-
Deputy City Attorney I	-	-	-	-	-	-	-	-	-	-	-	1	1
Deputy City Attorney I I I	2	-	2	-	2	(2)	-	1	1	(1)	-	-	-
Deputy City Clerk	1	-	1	-	1	-	1	-	1	-	1	-	1
Deputy City Manager	-	-	-	-	-	-	-	-	-	-	-	-	-
Dep. Comm & Economic Dev Director	-	-	-	-	-	-	-	-	-	-	-	-	-
Development Svcs Coordinator	1	-	1	(1)	-	-	-	-	-	-	-	-	-
Economic Dev Director	-	-	-	-	-	-	-	1	1	-	1	-	1
Economic Dev Mgr	-	-	-	-	-	-	-	-	-	1	1	-	1
Electric Utility Division Mgr	1	-	1	-	1	-	1	-	1	-	1	-	1
Electric Utility Program Coord	1	-	1	-	1	-	1	-	1	-	1	-	1
Emerg Mgmt & Vol Svc Prog Spec	2	(1)	1	-	1	-	1	-	1	-	1	-	1
Emerg Mgmt & Vol Svcs Prog Mgr	1	-	1	-	1	-	1	-	1	-	1	-	1
Engineering Division Manager	1	-	1	-	1	-	1	-	1	-	1	-	1
Engineering Technician I I	1	-	1	-	1	-	1	-	1	-	1	-	1
Enterprise Systems Admin	1	-	1	-	1	-	1	-	1	-	1	-	1

Attachment: Position Control Roster 16-17 [Revision 2] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW,

City of Moreno Valley
FY 2015/16 - 2016/17
City Position Summary

Position Title	FY 2010/11 No.	FY 2011/12 Adj.	FY 2011/12 No.	FY 2012/13 Adj.	FY 2012/13 No.	FY 2013/14 Adj.	FY 2013/14 No.	FY 2014/15 Adj.	FY 2014/15 No.	FY 2015/16 Adj.	FY 2015/16 No.	FY 2016/17 Adj.	FY 2016/17 No.
Environmental Analyst	1	-	1	-	1	-	1	-	1	-	1	-	1
Equipment Operator	4	-	4	-	4	-	4	-	4	-	4	-	4
Exec Asst to Mayor / City Council	1	-	1	-	1	-	1	-	1	-	1	-	1
Exec. Assistant to the City Manager	-	-	-	-	-	-	-	-	-	-	-	-	-
Executive Asst I	7	-	7	2	9	-	9	-	9	-	9	-	9
Executive Asst I I	1	-	1	-	1	-	1	-	1	-	1	-	1
Facilities Maint Mechanic	1	-	1	-	1	-	1	-	1	-	1	-	1
Facilities Maint Worker	3	-	3	-	3	-	3	(1)	2	1	3	-	3
Facilities Maintenance Spvr	1	(1)	-	-	-	-	-	-	-	-	-	1	1
Financial Analyst	-	-	-	-	-	-	-	-	-	1	1	-	1
Financial Operations Div Mgr	1	-	1	-	1	-	1	-	1	-	1	-	1
Financial Resources Div Mgr	-	-	-	-	-	1	1	-	1	-	1	-	1
Fire Inspector I	-	-	-	-	-	2	2	-	2	(2)	-	-	-
Fire Inspector I I	2	-	2	-	2	-	2	(1)	1	(1)	-	-	-
Fire Marshall	1	-	1	-	1	-	1	(1)	-	-	-	-	-
Fire Safety Specialist	1	-	1	-	1	1	2	(1)	1	(1)	-	-	-
Fleet Supervisor	-	-	-	-	-	-	-	-	-	1	1	-	1
GIS Administrator	1	-	1	-	1	-	1	(1)	-	-	-	-	-
GIS Specialist	1	-	1	-	1	-	1	-	1	-	1	-	1
GIS Technician	1	-	1	(1)	-	-	-	1	1	-	1	-	1
Housing Program Coordinator	1	-	1	-	1	-	1	-	1	(1)	-	-	-
Housing Program Specialist	3	-	3	-	3	(3)	-	-	-	-	-	-	-
Human Resources Analyst	1	-	1	-	1	-	1	-	1	-	1	-	1
Human Resources Technician	2	(1)	1	(1)	-	-	-	-	-	-	-	-	-
Info Technology Technician	2	-	2	-	2	-	2	-	2	-	2	-	2
Landscape Development Coord	1	-	1	(1)	-	-	-	-	-	-	-	-	-
Landscape Irrigation Tech	1	-	1	-	1	-	1	-	1	-	1	-	1
Landscape Svcs Inspector	7	(2)	5	(2)	3	(1)	2	-	2	-	2	-	2
Landscape Svcs Supervisor	-	-	-	-	-	-	-	1	1	-	1	-	1
Lead Animal Care Technician	1	-	1	-	1	-	1	-	1	-	1	-	1
Lead Facilities Maint Worker	-	-	-	-	-	-	-	1	1	-	1	-	1
Lead Maintenance Worker	3	-	3	-	3	-	3	-	3	1	4	-	4
Lead Parks Maint Worker	5	-	5	-	5	-	5	-	5	1	6	-	6
Lead Traffic Sign/Marking Tech	2	-	2	-	2	-	2	-	2	-	2	-	2
Lead Vehicle / Equip Tech	1	-	1	-	1	-	1	-	1	(1)	-	-	-
Legal Secretary	1	-	1	-	1	-	1	-	1	(1)	-	-	-
Lib Serv Div Mgr	1	-	1	-	1	(1)	-	-	-	-	-	-	-
Librarian	4	-	4	-	4	(4)	-	-	-	-	-	-	-
Library Asst	13	-	13	-	13	(13)	-	-	-	-	-	-	-
Library Circulation Supervisor	1	-	1	-	1	(1)	-	-	-	-	-	-	-
Maint & Operations Div Mgr	1	-	1	-	1	-	1	-	1	-	1	-	1
Maintenance Worker I	-	-	-	-	-	7	7	(7)	-	-	-	-	-
Maintenance Worker II	1	-	1	-	1	-	1	(1)	-	-	-	-	-
Maintenance Worker I/II	12	-	12	-	12	-	12	6	18	-	18	-	18
Management Aide	-		-		-		-	1	1	1	2	-	2
Management Analyst	11	-	11	4	14	(1)	12	(1)	11	(1)	10	(1)	9
Management Asst	3	-	3	-	3	1	4	1	5	(1)	4	-	4
Media & Production Supervisor	1	-	1	-	1	-	1	-	1	-	1	-	1
Network Administrator	1	-	1	-	1	-	1	-	1	-	1	-	1
Office Asst	1	-	1	-	1	-	1	(1)	-	-	-	-	-
Paralegal	-	-	-	-	-	-	-	-	-	1	1	-	1
Park Ranger	3	-	3	-	3	-	3	-	3	-	3	-	3
Parking Control Officer	2	-	2	-	2	-	2	-	2	-	2	-	2
Parks & Comm Svcs Director	1	-	1	-	1	-	1	-	1	-	1	-	1
Parks & Comm Svcs Div Mgr	-	-	-	1	1	-	1	-	1	-	1	-	1
Parks Maint Division Manager	1	-	1	(1)	-	-	-	-	-	-	-	-	-
Parks Maint Supervisor	2	-	2	-	2	-	2	-	2	-	2	-	2
Parks Maint Worker	13	-	13	-	13	-	13	-	13	(1)	12	-	12
Parks Projects Coordinator	1	-	1	-	1	-	1	-	1	-	1	-	1
Payroll Supervisor	1	-	1	-	1	-	1	-	1	-	1	-	1
Permit Technician	6	-	6	-	6	(1)	5	-	5	-	5	-	5
Planning Commissioner	7	-	7	-	7	-	7	-	7	-	7	-	7
Planning Div Mgr / Official	1	-	1	-	1	-	1	-	1	-	1	-	1
Principal Accountant	1	-	1	-	1	-	1	-	1	-	1	-	1
Public Information/Intergovernmental Relations Officer	-	-	-	-	-	1	-	-	-	1	1	-	1
Purch & Facilities Div Mgr	1	-	1	-	1	-	1	-	1	-	1	-	1
PW Director / City Engineer	1	-	1	-	1	-	1	-	1	-	1	-	1
PW Program Manager	-	-	-	-	-	-	-	-	-	-	-	-	-
Recreation Program Coord	2	-	2	(1)	1	-	1	-	1	1	2	(2)	-
Recreation Program Leader	7	-	7	-	7	-	7	-	7	-	7	-	7
Recreation Supervisor	-	-	-	1	1	-	1	-	1	(1)	-	-	-
Recycling Specialist	-	-	-	-	-	1	1	-	1	-	1	-	1
Resource Analyst	-	-	-	-	-	-	-	-	-	-	-	-	-
Risk Division Manager	1	-	1	(1)	-	-	-	-	-	-	-	-	-
Security Guard	3	(1)	2	-	2	-	2	-	2	-	2	-	2
Spec Dist Budg & Accting Spvr	1	(1)	-	-	-	-	-	-	-	-	-	-	-
Spec Districts Div Mgr	1	-	1	-	1	-	1	-	1	-	1	-	1
Special Districts Prog Mgr	1	-	1	-	1	-	1	-	1	(1)	-	-	-

Attachment: Position Control Roster 16-17 [Revision 2] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW,

City of Moreno Valley
FY 2015/16 - 2016/17
City Position Summary

Position Title	FY 2010/11 No.	FY 2011/12 Adj.	FY 2011/12 No.	FY 2012/13 Adj.	FY 2012/13 No.	FY 2013/14 Adj.	FY 2013/14 No.	FY 2014/15 Adj.	FY 2014/15 No.	FY 2015/16 Adj.	FY 2015/16 No.	FY 2016/17 Adj.	FY 2016/17 No.
Sr Accountant	1	-	1	-	1	-	1	-	1	1	2	-	2
Sr Administrative Asst	19	(5)	14	2	16	(2)	14	3	17	-	17	-	17
Sr Applications Analyst	-	-	-	-	-	-	-	1	1	-	1	-	1
Sr Citizens Center Coord	1	-	1	-	1	-	1	-	1	-	1	(1)	-
Sr Code Compliance Officer	1	(1)	-	-	-	-	-	-	-	-	-	-	-
Sr Customer Service Asst	3	-	3	-	3	-	3	-	3	-	3	-	3
Sr Deputy Clerk	-	-	-	-	-	-	-	-	-	-	-	-	-
Sr Electrical Engineer	1	-	1	-	1	-	1	-	1	-	1	-	1
Sr Engineer, P.E.	11	(2)	9	-	9	-	9	-	9	(2)	7	(1)	6
Sr Engineering Technician	1	-	1	-	1	-	1	-	1	-	1	-	1
Sr Equipment Operator	1	-	1	-	1	-	1	-	1	-	1	-	1
Sr Financial Analyst	2	-	2	-	2	-	2	(1)	1	(1)	-	-	-
Sr GIS Analyst	1	-	1	-	1	-	1	-	1	-	1	-	1
Sr Graphics Designer	1	-	1	-	1	-	1	-	1	-	1	-	1
Sr Human Resources Analyst	1	-	1	-	1	-	1	-	1	-	1	-	1
Sr IT Technician	-	-	-	-	-	-	-	-	-	-	-	-	-
Sr Landscape Svcs Inspector	1	-	1	-	1	-	1	(1)	-	-	-	-	-
Sr Management Analyst	2	-	2	-	2	-	2	1	3	1	4	1	5
Sr Office Asst	6	(1)	5	-	5	(1)	4	(1)	3	-	3	-	3
Sr Park Ranger	1	(1)	-	-	-	-	-	-	-	-	-	-	-
Sr Parking Control Officer	1	-	1	-	1	-	1	-	1	-	1	-	1
Sr Parks Maint Technician	1	-	1	1	2	-	2	-	2	-	2	-	2
Sr Payroll Technician	1	-	1	-	1	-	1	-	1	-	1	-	1
Sr Permit Technician	2	-	2	-	2	-	2	-	2	-	2	-	2
Sr Planner	2	-	2	-	2	-	2	-	2	-	2	-	2
Sr Recreation Program Leader	2	-	2	-	2	-	2	-	2	-	2	-	2
Sr Telecomm Technician	1	-	1	-	1	-	1	-	1	-	1	-	1
Sr Traffic Engineer	1	-	1	-	1	-	1	-	1	(1)	-	-	-
Sr Traffic Signal Technician	1	-	1	-	1	-	1	-	1	-	1	-	1
Storekeeper	1	-	1	-	1	-	1	-	1	-	1	-	1
Storm Water Prog Mgr	1	-	1	-	1	-	1	-	1	-	1	-	1
Street Maintenance Supervisor	2	-	2	-	2	-	2	-	2	-	2	-	2
Sustainability & Intergovernmental Prog Mgr	-	-	-	-	-	1	1	-	1	(1)	-	-	-
Technology Services Div Mgr	1	-	1	-	1	-	1	-	1	-	1	-	1
Telecomm Engineer / Admin	1	-	1	-	1	-	1	-	1	-	1	-	1
Telecomm Technician	1	-	1	-	1	-	1	-	1	-	1	-	1
Traffic Operations Supervisor	1	-	1	-	1	-	1	-	1	-	1	-	1
Traffic Sign / Marking Tech I	1	-	1	-	1	-	1	-	1	-	1	-	1
Traffic Sign/Marking Tech I I	2	-	2	-	2	-	2	-	2	-	2	-	2
Traffic Signal Technician	2	-	2	-	2	-	2	-	2	-	2	-	2
Trans Div Mgr / City Traf Engr	1	-	1	-	1	-	1	-	1	-	1	-	1
Treasury Operations Div Mgr	1	-	1	-	1	-	1	-	1	-	1	-	1
Tree Trimmer	1	-	1	-	1	-	1	-	1	(1)	-	-	-
Vehicle / Equipment Technician	2	-	2	-	2	1	3	-	3	-	3	-	3
Total	**411**	**(35)**	**376**	**3**	**378**	**(16)**	**360**	**-**	**360**	**(6)**	**354**	**2**	**356**

* Excludes City Council Members and temporary positions

Attachment: Position Control Roster 16-17 [Revision 2] (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW,

City of Moreno Valley

Date Adopted: April 6, 2007

CLASS SPECIFICATION
Senior Management Analyst

GENERAL PURPOSE

Under general supervision, performs complex and responsible administrative, financial, statistical and other management analyses in support of City and departmental activities, functions and programs; provides sound professional recommendations for action and significant assistance in formulating policy, procedure and legislative positions; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

Senior Management Analysts perform complex and responsible analyses and studies on a wide range of management, administrative, financial, facilities and other organization issues in support of the planning and execution of City-wide or department goals and objectives. Incumbents are expected to define and apply appropriate study methodologies and utilize sound analytical tools and techniques to achieve sound, reliable, fact-based conclusions and recommendations. Assignments are generally given in terms of expected objectives to be accomplished and work is evaluated on the basis of results achieved.

ESSENTIAL DUTIES AND RESPONSIBILITIES

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this class.

1. Plans, coordinates, organizes and conducts complex administrative, management and legislative analysis studies relating to assigned issues and/or programs; identifies problems, determines analytical techniques and statistical and information-gathering processes and obtains necessary information and data for analysis; analyzes alternatives and makes recommendations; discusses findings with management; prepares and presents reports of study conclusions; develops implementation plans and assists in implementing policies and procedures; drafts reports, recommended legislative or policy change documents and presentation materials for management.

2. Performs difficult and responsible assignments in connection with preparation and management of large complex operating and capital budgets; develops multi-year revenue and expenditure projections and cash flow analyses for multiple revenue sources; prepares revenue and expenditure analyses, staffing analyses and budget status and monitoring reports; drafts budget request reports and documents; prepares budget adjustment requests.

3. Administers contracts for construction projects; tracks contract amendments and scope of work change orders; monitors progress and performance against contract requirements and provides reports to department managers and engineering project managers; drafts contract correspondence; prepares and maintains documentation on a wide variety of contract and contract administration issues.

Attachment: Sr Management Analyst (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST QUARTER

4. Sets up contractor progress payments; performs detailed review and analysis of contractor invoices to ensure conformance with work schedules, contract provisions and budget; requests additional information and invoice modifications to ensure compliance with contract terms and conditions; briefs management on contract management problems and disagreements and recommends appropriate courses of action; recommends the payment of contractor invoices following engineering review; prepares journal entries to correct invoicing and expenditure errors.

5. Reviews, tracks, analyzes and interprets proposed legislation on matters related to City programs, operations, policies, financing and other relevant issues; distributes proposed legislation to departments for feedback; compiles feedback and drafts position papers and correspondence; drafts regular legislative status reports to management and City Council; maintains the legislative database; meets with local legislators' representatives to discuss priority City issues.

6. Drafts proposed contracts and agreements and a variety of other supporting documents; monitors contract performance and expenditures; approves contract invoices for payment within guidelines and authority limits; researches and resolves contract problems and disputes; transmits contracts for required City approvals and execution; consults with the City Attorney's office on difficult contractual issues.

7. Conducts research, analyzes data and drafts policy and procedure documents to address identified needs and issues; drafts communications materials required for implementation.

8. Drafts a wide variety of materials, including reports, procedures, manuals, communications memoranda, presentations, proposed Code or ordinance changes and other materials; identifies issues, obtains input and feedback, conducts research and analysis; gathers data, maps and other supporting materials and develops recommendations, staff reports to City Council and a variety of other written materials; drafts, publishes and posts public notices.

9. Provides technical assistance to department or division staff by conducting research and drafting documents and materials for review; develops data collection tools, including surveys and questionnaires; analyzes program and operational data and develops recommendations to improve productivity and effectiveness; responds to requests for information from the public.

OTHER DUTIES

1. Manages and performs a variety of difficult and responsible special projects as assigned.

2. Represents the City or department on committees and in a variety of meetings and other functions applicable to areas of responsibility.

Attachment: Sr Management Analyst (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST QUARTER

QUALIFICATIONS

Knowledge of:

1. Principles, practices and methods of administrative, organizational, financial and procedural analysis.
2. Principles and practices of public administration, including purchasing, contracting and maintenance of public records.
3. Principles, practices and methods of municipal budget development and management.
4. Basic principles, tools and techniques of project planning and management.
5. Federal, state and local laws, regulations and court decisions applicable to assigned areas of responsibility.
6. Research methods and analysis techniques.
7. Principles and practices of sound business communication.
8. Record keeping practices and procedures applicable to areas of assigned responsibility.

Ability to:

1. Analyze administrative, operational, procedural, organizational and/or financial problems, evaluate alternatives and reach sound, logical, fact-based conclusions and recommendations.
2. Coordinate multiple, complex projects and meet critical deadlines.
3. Collect, evaluate and interpret myriad data, either in statistical or narrative form.
4. Analyze, interpret, explain and apply relevant laws, regulations, ordinances and policies.
5. Prepare clear, concise and comprehensive reports, correspondence and other documents appropriate to the audience.
6. Communicate effectively, orally and in writing; present conclusions and recommendations clearly and logically.
7. Maintain files, records and documentation.
8. Exercise independent judgment and initiative within established guidelines.
9. Establish and maintain effective working relationships with department managers and staff, staff of other departments, representatives of other governmental agencies, developers, consultants, property owners, the public and others encountered in the course of work.

Attachment: Sr Management Analyst (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST QUARTER

Attachment: Sr Management Analyst (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST QUARTER

Education, Training and Experience:

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from a four-year college or university with major coursework in finance, public or business administration or a closely related field; and at least five years of progressively responsible professional experience performing administrative, operations, budgetary and similar analyses; or an equivalent combination of training and experience. Experience in a governmental agency is preferred.

Licenses; Certificates; Special Requirements:

A valid California driver's license and the ability to maintain insurability under the City's vehicle insurance policy.

PHYSICAL AND MENTAL DEMANDS

The physical and mental demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Physical Demands

While performing the duties of this job, employees are regularly required to sit; talk or hear, both in person and by telephone; use hands to finger, handle and feel computers and standard business equipment; and reach with hands and arms. The employee is frequently required to stand and walk.

Specific vision abilities required by this job include close vision and the ability to adjust focus.

Mental Demands

While performing the duties of this class, incumbents are regularly required to use written and oral communication skill; read and interpret data, information and documents; analyze and solve problems; observe and interpret people and situations; use math and mathematical reasoning; learn and apply new information or skills; perform highly detailed work under changing, intensive deadlines, on multiple concurrent tasks; work with constant interruptions, and interact with all levels of management, employees, the public and others encountered in the course of work.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee works under typical office conditions and the noise level is usually quiet.

Attachment: Deputy City Attorney (2280 : APPROVAL OF FISCAL YEAR 2016/17 FIRST QUARTER BUDGET REVIEW, FIRST QUARTER BUDGET

City of Moreno Valley

Date Council Approved March 13, 2007
Date Effective April 6, 2007

CLASS SPECIFICATION

Deputy City Attorney I

GENERAL PURPOSE

Under the direction of the City Attorney, performs professional legal work on behalf of the City including civil litigation; criminal prosecution under the Municipal Code; review and preparation of contracts, ordinances, resolutions and other legal documents; providing legal advice to City officials and staff on matters of significant public impact and visibility; and related work as required. Deputy City Attorneys are appointed and serve at the will of the City Attorney.

DISTINGUISHING CHARACTERISTICS

Deputy City Attorney I is the entry level class in this professional series in which incumbents receive orientation and training and are expected to progress to the class of Deputy City Attorney II within a reasonable length of time. Deputy City Attorney II is the journey-level class in the professional legal series and requires greater initiative and independent judgment in performing more complex legal work with less supervision. Deputy City Attorney III is the class for advanced journey and supervisory level professionals. This class handles the most difficult and complex cases independently and without significant supervision, and supervises the work of attorneys in class I and II.

ESSENTIAL DUTIES AND RESPONSIBILITIES

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this class, or otherwise assigned by the City Attorney.

1. Studies, interprets, and applies laws, court decisions, and legal authorities for use in the preparation of litigation cases, opinions, advice memorandums, and public presentations.
2. Prepares legal pleadings such as complaints, answers, demurrers, discovery, appeals, and judgments.
3. Confers with and advises Mayor, City Manager, City Council, department managers, and other City employees on legal questions pertaining to their respective powers, duties, and obligations.
4. Drafts ordinances, resolutions, and other legislative measures; represents the City in lawsuits by or against the City.
5. Prepares and/or reviews contracts, agreements, leases, and deeds for legality.
6. Engages in legal research as required.
7. Performs related work such as preparing petitions and dictating legal instruments, reports, and correspondence.
8. Performs other duties as assigned by the City Attorney or Assistant City Attorney.
9. Prepares appropriate pleading and other documents in litigation cases and represents the City in administrative and judicial proceedings, at the trial and appellate level.

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OTHER DUTIES

Deputy City Attorney III is the advanced level in the City Attorney's office. Incumbents handle the most difficult and complex cases are expected to use professional judgment and skill in performing work without significant supervision. They also must have the ability to effectively supervise the work of less experienced attorneys, paralegals and clerical staff.

QUALIFICATIONS

Knowledge of:

1. Principles and practices of civil and administrative law, especially as they relate to municipal governments.
2. Litigation procedures, including pleading requirements, rules of court, and evidentiary rules.
3. State and federal court procedures and rules of evidence.
4. Interview techniques and methods and strategies for case preparation.
5. Pleadings and effective practices and techniques in the presentation of court cases.
6. Principles, methods and techniques of legal research and investigation.
7. State and federal political systems and the legislative process.
8. City Council procedures, filing requirements and deadlines, as well as parliamentary procedures found in Code provisions that govern Council proceedings.
9. Municipal Code, state and federal law and regulation, court decisions and other legal requirements applicable to municipal government functions, operations and staff.
10. The Brown Act, the Fair Political Practices Act, the Public Records Act and other state laws and court cases applicable to municipalities and public bodies.
11. City Code provisions, ordinances, policies and City Attorney opinions.
12. Operating, financial and legal problems and trends among municipal agencies.
13. Principles and practices of legal communication.
14. Responsibilities and obligations of public officials and administrative agencies in the State of California.
15. Principles and practices of public administration, including budgeting, financial planning, purchasing, contracting and maintenance of records.
16. Principles, practices and procedures of law office administration.
17. Principles and practices of effective management and supervision.
18. City human resources policies and procedures and labor contract provisions.

Ability to:

1. Plan, organize and administer the activities of a municipal law office providing a wide range of legal advice and litigation services in diverse areas of the law.
2. Prepare legal briefs and other legal documents and instruments.
3. Define complex legal and organizational issues, perform legal research, analyze problems, evaluate alternatives and develop sound expert conclusions and recommendations.
4. Present statements of fact, law and argument clearly, logically and persuasively.
5. Represent the City effectively in negotiations and other dealings on behalf of the City and the City Council.
6. Exercise sound, independent judgment within general policy guidelines and legal parameters.
7. Interpret state and federal laws, regulations, legislation and constitutional provisions affecting municipal operations.
8. Develop sound litigation strategy and represent the City effectively in administrative proceedings, public hearings, courts of law and intergovernmental meetings.

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9. Prepare clear, concise and comprehensive correspondence, reports and other written materials.
10. Use effective written and oral communication skills, including explaining complex and unfamiliar principles to non-technical audiences.
11. Advocate for the City in presenting statements of fact, law and argument clearly, logically and persuasively.
12. Objectively and neutrally evaluate witnesses, legal materials and evidence.
13. Perform highly detailed work on multiple, concurrent tasks; work under changing and intensive deadlines with frequent interruptions.
14. Organize, set priorities and exercise sound independent judgment within areas of responsibility.
15. Remain politically neutral on issues of public policy while providing legal advice that accounts for political considerations.
16. Conduct computer assisted legal research and investigation.
17. Use a high degree of tact, discretion and diplomacy in dealing with sensitive situations and concerned or upset individuals.
18. Establish and maintain effective working relationships with elected officials, City management and staff, officers of the court, litigants and their attorneys, complainants, representatives of other public agencies, business and community leaders, media representatives, City residents, the public and others encountered in the course of work.

Education, Training and Experience:

A typical way of obtaining the knowledge, skills and abilities outlined above at the level is graduation from a four-year college or university; graduation with a Juris Doctor degree from an accredited law school, admission to the State Bar of California; and:

Deputy City Attorney I:

1. 0 to 4 years of experience as an attorney in the practice of law in the State of California.

Experience in other areas of law may be substituted for public law experience depending on applicability to current needs at the discretion of the City Attorney.

Licenses; Certificates; Special Requirements:

Current active membership in the Bar of the State of California in good standing and admission to practice before the State of California and Federal courts.

A valid California driver's license and the ability to maintain insurability under the City's vehicle insurance policy.

PHYSICAL AND MENTAL DEMANDS

The physical and mental demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Physical Demands

While performing the duties of this class, the employee is regularly required to sit; talk or hear, in person and by telephone; use hands to finger, handle, feel or operate standard office equipment; and reach with hands or arms. The employee frequently is required to walk and stand. The employee is occasionally required to climb or balance, stoop, kneel, crouch or crawl.

Specific vision abilities required by this job include close vision, color vision, the ability to distinguish basic colors and shades, depth perception and the ability to adjust focus.

Mental Demands

While performing the duties of this class, the employee is regularly required to use oral and written communication skills; read and interpret data, information and documents; analyze and solve problems; observe and interpret data and situations; learn and apply new skills or information; perform highly detailed work on multiple concurrent tasks; work under changing and intensive deadlines with frequent interruptions; and interact with City officials, management, staff, the public and others encountered in the course of work.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The employee works under typical office conditions, and the noise level is usually quiet.

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Report to City Council

TO:	Mayor and City Council
FROM:	Marshall Eyerman, Chief Financial Officer
AGENDA DATE:	February 7, 2017
TITLE:	APPROVE AND ADOPT THE FUND BALANCE AND FINANCIAL RESERVES POLICY

RECOMMENDED ACTION

Recommendation:

1. Approve and Adopt the Fund Balance and Financial Reserves Policy.

SUMMARY

The City of Moreno Valley is dedicated to maintaining the fiscal stability of the City. It is essential that adequate levels of unrestricted funds be maintained to mitigate financial risk that can occur from unforeseen revenue fluctuations, unanticipated expenditures, and/or other similar circumstances. This policy will provide guidance on establishing and maintaining reasonable levels of reserves in both governmental and proprietary funds.

DISCUSSION

The City of Moreno Valley is dedicated to maintaining the fiscal stability of the City. It is essential that adequate levels of unrestricted funds be maintained to mitigate financial risk that can occur from unforeseen revenue fluctuations, unanticipated expenditures, and/or other similar circumstances. This policy will provide guidance on establishing and maintaining reasonable levels of reserves in both governmental and proprietary funds.

In addition, this policy will improve financial reporting by establishing fund balance classifications that create a hierarchy based on the extent to which the City is bound to observe spending constraints that govern how the City can use amounts reported in the governmental fund balance sheet.

Following the great recession, through the direction of the City Council the City has been able to re-establish the prior reserve fund balances. The proposed policy will

create a structure where the City's current General Fund unassigned reserve funds are further identified for purposes such as cash flow needs, economic uncertainty, and emergency funds. The use of these funds along with requirements for the replenishment of the minimum reserve levels will provide greater stability for the City in the future and support additional financial controls.

The General Fund's unassigned fund balance at the end of Fiscal Year 2015/16 was $37 million. The amount is equal to approximately 40% of the FY 2016/17 amended budget expenses. Based on current operations of the City, it is necessary to further identify the potential use of these funds.

Unassigned Fund Balance
The City currently has a policy to maintain a minimum 15% fund balance to meet annual operational cash flow needs. The City's largest revenue source is property taxes, with the first payments not being received until January and the second payment received in May. With the City's fiscal year starting on July 1, this results in up to seven months (or 58% of the year) of operational expenses without any offsetting revenues. Due to the timing of revenues, it is necessary for the City to maintain an unassigned fund balance to meet the cash flow needs of the City. The minimum level of reserves is proposed to be increased to 17% based on historical actual cash flow within the General Fund.

Assigned to: Economic Uncertainty Reserve Fund Balance
The City's three primary revenue sources are property taxes, sales taxes, and utility users taxes. During the last recession, two of these revenue sources were impacted significantly in a short period of time. Although the City Council was able to respond quickly to the changes in revenues through actions such as the Deficit Elimination Plan, there may still be some contractual expenses which may not be reduced in a timely manner. To support the General Fund operations during this period of reduced revenues and until such time as the expenses can be reduced, the Economic uncertainty Reserve fund will provide financial coverage for the City.

Committed to: Reserve Stabilization Fund Balance
The purpose of this reserve is to provide funds for urgent catastrophic events or major disasters that affect the safety of residents, employees, and property. The State of California along with the City may be affected by many events such as earthquakes, fire, and floods which could impact the infrastructure (roads, bridges, utilities) of the City. When certain events occur, the City should have funds available to provide assistance to the public to repair the City's infrastructure in a timely manner. In cases where the City may be eligible for Federal Emergency Management Agency (FEMA) grants, there is still a need for the City to pay for repairs today and then wait (sometimes multiple years) for any eligible reimbursements.

Based on this current fund balance, the General Fund currently meets the minimum reserve fund requirements as follows:

	Minimum Reserve	FY 2016/17 Minimum	Projected Fund

	Requirement (%)	Reserve Requirement ($)	Balance Allocation
Committed to: Reserve Stabilization ("Emergency Fund")	12.00%	$11,399,152	$11,399,152
Assigned to: Economic Uncertainty Reserve ("Rainy Day Fund")	10.00%	$9,499,294	$9,499,294
Unassigned ("Cash Flow")	17.00%	$16,148,799	$16,631,081
		$37,047,246	$37,529,527

ALTERNATIVES

1. Approve Fund Balance and Financial Reserves Policy. This alternative is recommended so that the City's policies are formally updated to reflect current operational practices and to provide guidance for the future use of reserves.

2. Not approve Fund Balance and Financial Reserves Policy. This alternative is not recommended since it will limit guidance for the future use of reserves.

FISCAL IMPACT

No current fiscal impact

NOTIFICATION

Public Notice

PREPARATION OF STAFF REPORT

Prepared By:
Dena Heald
Financial Operations Division Manager

Department Head Approval:
Marshall Eyerman
Chief Financial Officer/City Treasurer

CITY COUNCIL GOALS

None

CITY COUNCIL STRATEGIC PRIORITIES

1. **Economic Development**
2. **Public Safety**
3. **Library**
4. **Infrastructure**
5. **Beautification, Community Engagement, and Quality of Life**
6. **Youth Programs**

ATTACHMENTS

1. Moreno Valley Fund Balance and Financial Reserves Policy

APPROVALS

Budget Officer Approval	✓ Approved	1/24/17 1:57 PM
City Attorney Approval	✓ Approved	1/25/17 11:55 AM
City Manager Approval	✓ Approved	1/26/17 1:20 PM

Fund Balance and Financial Reserves Policy

PURPOSE: The City of Moreno Valley is dedicated to maintaining the fiscal stability of the City. It is essential that adequate levels of unrestricted funds be maintained to mitigate financial risk that can occur from unforeseen revenue fluctuations, unanticipated expenditures, and/or other similar circumstances. This policy will provide guidance on establishing and maintaining reasonable levels of reserves in both governmental and proprietary funds. In addition, this policy will improve financial reporting by establishing fund balance classifications that create a hierarchy based on the extent to which the City is bound to observe spending constraints that govern how the City can use amounts reported in the governmental fund balance sheet.

SCOPE: As referencing governmental funds, this policy in conjunction with Resolution 2011-62 (adopted June 14, 2011) satisfies the requirements of Governmental Accounting Standards Board (GASB) Statement No. 54.

DEFINITIONS:

I. **Capital Projects Funds**: are used to account for all financial resources restricted, committed or assigned to expenditures for acquisition or construction of capital assets.

II. **Debt Service Funds**: are used to account for all financial resources restricted, committed or assigned to expenditures for principal and interest.

III. **Fund Balance**: is the excess of total assets as compared to total liabilities in a governmental fund.

A. Fund Balances are listed under five categories:

1. Non-spendable: Amounts that cannot be spent because they are either not in the spendable form or are legally and contractually required to be maintained intact.

2. Restricted: Amounts that are constrained on the use of resources by external creditors, grantors, contributor, or laws or regulations of other governments; or, by law through constitutional provisions or enabling legislature.

3. Committed: Amounts that can be used only for the specific purposes pursuant to constraints imposed by formal action of the government's highest authority, City Council.

4. Assigned: Amounts that are constrained by the government's intent to be used for specific purposes, but are neither restricted nor committed.

5. Unassigned: the residual amounts that have not been restricted, committed, or assigned to specific purposes.

IV. **General Funds**: are used to account for all financial resources not accounted for and reported in another fund.

V. **Permanent Funds**: are used to account for resources restricted to the extent that only earnings, and not principal, may be used for purposes that support the City's purposes.

VI. **Special Revenue Funds**: are used to account and report the proceeds of specific revenue sources that are restricted or committed to expenditures for specific purposes other than debt services or capital projects.

Attachment: Moreno Valley Fund Balance and Financial Reserves Policy [Revision 1] (2450 : APPROVE AND ADOPT THE FUND BALANCE AND

Fund Balance and Financial Reserves Policy

POLICY:

I. Fund Balance Classification in Governmental Funds

A. GASB 54 outlines the requirement to report the fund balance for governmental funds in specific classifications which create a hierarchy primarily based on the extent to which the City is bound to the constraints on the specific purposes for which funds can be spent.

1. The Fund Balance consists of the following five categories:

   a. Non-spendable
   b. Restricted
   c. Committed
   d. Assigned
   e. Unassigned

B. An individual governmental fund could include non-spendable resources and amounts that are restricted, committed, assigned, unassigned, or any combination of those classifications.

C. Restricted amounts are to be considered spent when expenditure is incurred for purposes for which both restricted and unrestricted fund balance is available and committed or assigned.

D. Unassigned amounts are considered to have been spent when expenditure is incurred for purposes which amounts in any of these unrestricted fund balance classifications can be used.

E. Commitments may be changed or lifted only by the government taking the same formal action that imposed the constraint originally.

C. The general fund is the only fund that may report a positive unassigned fund balance.

1. In other funds, the unassigned classification should be used only to report a deficit balance from overspending for specific purposes for which amounts had been restricted, committed, or assigned.

D. Stabilization Arrangements

1. Per GASB 54, governments have the option to formally set aside unrestricted fund balance amounts to use for budget or revenue stabilization, working capital needs, and contingencies or emergencies.

   a. The authority to set aside such amounts can be established by statute, ordinance, or resolution.

   b. These amounts are subject to controls that dictate the circumstances under which they can be spent.

   c. The formal action that imposes the parameters for spending should identify and describe the specific circumstances under which a need for stabilization arises.

      i. Those circumstances should be such that they would not be expected to occur routinely.

Attachment: Moreno Valley Fund Balance and Financial Reserves Policy [Revision 1] (2450 : APPROVE AND ADOPT THE FUND BALANCE AND

d. Stabilization amounts should be reported in the general fund as restricted or committed if they meet the criteria of restricted or committed fund balance.

e. A stabilization arrangement would satisfy the criteria to be reported as a separate special revenue fund only if the resources derive from the specific restricted or committed revenue source.

II. Committing Fund Balance

A. For the City of Moreno Valley, the City Council is the highest level of decision making authority.

B. The formal action that is required to be taken to establish, modify, or rescind a fund balance commitment is a resolution approved by the Council at a City Council meeting.

1. The resolution must either be approved or rescinded, as applicable, prior to the last day of the fiscal year for which the commitment is made.

2. The amount subject to the constraint may be determined in the subsequent period.

III. Assigned Fund Balance

A. The City Council has authorized the City Manager as the official authorized to assign fund balance to a specific purpose as approved by this fund balance policy.

1. Such assignments cannot exceed the available (spendable, unrestricted, uncommitted) fund balance in any particular year.

IV. Reporting Encumbrances

A. Encumbering amounts in governmental funds for specific purposes for which resources have already been restricted, committed, or assigned should not result in separate display of encumbered amounts.

B. Encumbered amounts for specific purposes for which amounts have not been previously restricted, committed, or assigned, will be classified as committed or assigned, as appropriate, based on the definitions and criteria set forth in GASB Statement No. 54.

V. Hierarchy of Fund Balance Use

A. When multiple categories of fund balance are available for expenditures, the City will spend the most restricted funds first before moving down the category with available funds in the following order:

1. Restricted
2. Committed
3. Assigned
4. Unassigned

VI. Minimum Level of Fund Balance/Net Assets

A. General Fund

Attachment: Moreno Valley Fund Balance and Financial Reserves Policy [Revision 1] (2450 : APPROVE AND ADOPT THE FUND BALANCE AND

Fund Balance and Financial Reserves Policy

1. It is the goal of the City to achieve and maintain a minimum unrestricted (committed, assigned and unassigned) fund balance in its General Fund.

   a. Committed Fund Balance for Financial Stabilization Arrangement

      i. The City's General Fund balance committed for Operating Reserve Stabilization is established at a minimum goal of 12% of the General Fund's current operating expenditures.

         1) These funds are to be used for catastrophic events, major emergencies, or in periods of severe fiscal crisis.

      ii. An Operating Reserve Stabilization Fund Balance in the General Fund is established for the purpose of providing funds for an urgent catastrophic event or major disaster that affects the safety of residents, employees, or property (e.g. earthquake, wildfires, terrorist attack, etc.)

         1) The recognition of an urgent event must be established by the City Council by adoption of a resolution explaining the nature of the fiscal crisis and requires approval by a majority vote of the City Council.

         2) A budget revision must be approved by the City Council. A maximum of 50% of the prior fiscal year ending balance in the Operating Reserve Stabilization Fund may be drawn.

         3) The City Council must approve and adopt a plan to restore the fund balance per Section VII, if the fund balance falls below the minimum requirement.

   b. Assigned Fund Balance

      i. The City's assigned fund balance for Economic Uncertainty Reserve is established at a minimum of 10% of the General Fund's current operating expenditures.

         1) These funds are to be used during times of severe economic distress such as recessionary periods, State raids on local resources, or other impactful unforeseen events which greatly diminish the financial ability of the City to deliver core services.

         2) The Economic Uncertainty Reserve will be used during periods of economic distress as measured by one of the following triggers:

            a) Consumer Price Index exceeds the index for the previous year by more than five percent for two consecutive years.

            b) Local unemployment rate exceeds 9% for three consecutive quarters.

Attachment: Moreno Valley Fund Balance and Financial Reserves Policy [Revision 1] (2450 : APPROVE AND ADOPT THE FUND BALANCE AND

c) The rate of inflation exceeds the growth in property tax revenue by 5% for two consecutive fiscal years.

d) Significant State take-aways of revenue totaling more than 5% of total revenue in a given fiscal year.

e) Sales Tax revenue falls by 5% over the previous quarter.

ii. Once the City Council or their designee (City Manager or Chief Financial Officer) has determined that it is necessary to draw down fund balance, a staff report approving the additional appropriation shall be made at the next City Council meeting accompanied by a formal report explaining the nature of the fiscal crisis and the plan to restore the fund balance per Section VII.

c. Unassigned Fund Balance

i. The City will achieve and maintain a minimum unassigned fund balance in its General Fund of no less than two months (17%) of regular general fund operating expenditures.

1) The minimum fund balance is to protect against cash flow shortfalls related to timing of projected revenue receipts and to maintain budgeted level of services.

ii. The City Council must approve and adopt a plan to restore the fund balance per Section VII, if the fund balance falls below the minimum requirement.

B. Special Revenue Funds

1. Special revenue funds are created to account for the proceeds from specific revenue sources that are legally restricted for specific purposes (e.g. CSD zones, grants, gas tax).

2. Each fund is unique based on the timing of revenue receipts.

a. No specific minimum fund balance requirement is created by this policy.

b. Each fund must adhere to any underlying guidelines attached to that revenue source.

C. Debt Service Funds

1. The minimum fund balance requirement for any outstanding issue will be consistent with the bond covenants.

D. Capital Projects Funds

1. Capital projects funds are created to account for resources set aside to construct or acquire fixed assets or improvements.

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2. These projects may extend beyond one fiscal year.

3. No specific amount for minimum fund balance is required per this policy.

E. Enterprise Funds

1. Enterprise funds should strive for positive net operating income to provide for necessary operating and capital expenses while maintaining sufficient debt service coverage ratios.

2. A specific percentage or dollar amount will vary due to the considerations for working capital, debt coverage, asset replacement, rate stabilization, and revenue volatility.

3. Moreno Valley Utility shall develop a separate Financial Reserves Policy.

F. Internal Service Funds

1. Internal Service Funds, by nature are designed to operate on a break even basis for operations, while, if applicable, accruing additional funds to finance future capital costs or potential liabilities.

a. Compensated Absences

i. This fund should allocate all of the costs related to maintaining a highly functioning full-time and part-time work force.

ii. The major expenses allocated to each Department and Program through this fund is compensated absences/annual leave.

iii. The minimum reserve level is set at 25% of the current liability for compensated absences, with a maximum of 100%.

iv. This policy states that the fund balance level for the compensated absences fund will be calculated using the total amount of compensated absences, as noted in the CAFR "Statement of Net Position."

1) This amount represents the total outstanding liability of all accrued employee annual leave that is eligible to be paid to the employees at separation.

a) While the CAFR "Statement of Net Position" lists this liability as that "due within one year" vs. "due beyond one year," it is prudent to establish a fund balance level based on the total amount of compensated absences, regardless of when the liability can reasonably be expected to be converted to an expense.

v. Using "compensated absences" as a measurement for appropriate fund balance allows for one type of liability to be covered.

1) Being able to show how the "compensated absences" liability could be fully covered, if in the highly unlikely scenario the

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entire amount needed to be converted to an expense, is a useful metric upon which to base a reserve level policy.

b. Equipment Maintenance and Replacement

i. The City has equipment that is maintained and replaced through the equipment internal service fund.

ii. This fund receives operating resources from Departments in order to provide for equipment maintenance (annual ongoing costs) and to fund the regular replacement of major pieces of equipment at their economic obsolescence.

iii. This policy establishes a minimum reserve level of 75%, with a maximum of 150% of the recorded purchase price for the current assets. The maximum reserve level exceeds 100% to allow for the cost increases related to future replacement value for the equipment.

c. Fleet Maintenance and Replacement

iv. The City has a fleet of rolling stock and other equipment that is maintained and replaced through the equipment internal service fund.

v. The City's Public Works and Parks and Community Services Departments comprise the largest users of and contributors to the equipment internal service fund.

vi. This fund receives operating resources from Departments in order to provide for fleet maintenance (annual ongoing costs) and to fund the regular replacement of major pieces of equipment (primarily rolling stock) at their economic obsolescence.

vii. This policy establishes a minimum reserve level of 50%, with a maximum of 150% of the recorded purchase price for the current assets.

1) The definition of rolling stock includes such equipment as Public Works utility trucks, and Parks and Community Services utility vehicles.
2) The replacement value shall be that updated and used annually as part of the budget development process.

d. Facilities Maintenance and Replacement

i. The facilities internal service fund is responsible for costs related to routine maintenance (i.e., custodial services) and major rehabilitation (i.e., roof replacement) of City buildings.

ii. The City maintains a long-term, facilities master plan that is utilized to guide long-range budgeting for major building expenses.

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iii. This policy establishes a minimum reserve level of 3.5%, with a maximum of 10% of the recorded purchase price for the current assets.
1) The lower reserve levels are established based on the longer life of the facilities and the potential of available financing for these types of assets.

e. Technology Maintenance and Replacement

i. The City's computer network, communications systems, desktop and peripheral hardware, and technology software expenses are accounted for in the technology internal service fund.

ii. This fund is utilized for periodic replacement of desktop computers, the annual expense related to enterprise-wide software licenses, upgrades to servers and networks, and maintenance and upkeep of the communications system.

iii. This policy establishes a minimum reserve level of 75%, with a maximum of 150% of the recorded purchase price for the current assets. The maximum reserve level exceeds 100% to allow for the cost increases related to future replacement value for the equipment.

VII. Replenishing Minimum Reserve Balance Deficiencies

A. When the General Fund's minimum fund balance falls below the required thresholds, the City Council must approve and adopt a plan to restore this balance to the target minimum level within five years using the following budget strategies:

1. The City will use budget surplus or,

2. The City will reduce recurring expenditures to eliminate any structural deficit or,

3. The City will increase revenues or pursue other fund sources, or,

4. A combination of the three options above.

B. Unless a repayment plan is pre-established at the time reserves are allocated, Staff shall bring for Council consideration a replenishment plan, within 90-days of allocation from the reserve.

1. It would be Council's expectation that every effort would be made to replenish the reserve as soon as it is financially feasible and practical to do so.

C. If the reserve cannot be replenished by the next annual budget, a repayment plan not to exceed five years should be approved by Council by a majority vote.

VIII. Deficit Unassigned Fund Balance

A. If the General Fund fund balance or net asset balance is not positive at any year end, the City shall develop a funding plan and a timeframe to bring it into a positive state.

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Fund Balance and Financial Reserves Policy

The unassigned fund balance deficit in General Fund will be restored through the same steps as set forth in Section VII.

IX. Surplus Unassigned Fund Balance

A. Unassigned fund balance in General Fund will be considered a surplus if over 35% of the budgeted expenditures and outgoing transfers of future budget year.

1. If unassigned fund balance of the General Fund ever exceed 35%, the City will consider such fund balance surpluses, in conjunction with the annual budget process, to be used, in no particular order of priority, for:

a. Provide additional funding for other assigned or committed fund balance requirements.

b. Capital projects and equipment

c. Payment of long term obligations

d. One-time expenditures that are non-recurring in nature and which will not require additional future expense outlay for maintenance, additional staffing or other recurring expenditures

B. Appropriation from General Fund's unassigned fund balance to fund reserves shall require the approval of City Council.

X. Implementation and Review

A. Upon adoption of this policy the City Council authorizes the Financial and Management Services Department to establish standards and procedures which may be necessary for its implementation.

B. The City Council shall review and approve this policy via resolution at a minimum of every four years to ensure it continues to meet the needs of the City given economic factors and the current financial status at that time interval.

Attachment: Moreno Valley Fund Balance and Financial Reserves Policy [Revision 1] (2450 : APPROVE AND ADOPT THE FUND BALANCE AND

Moreno Valley Fund Balance and Financial Reserves Summary

General Fund

	Minimum	Maximum
Committed to: Reserve Stabilization ("Emergency Fund")	12%	
Assigned to: Economic Uncertainty Reserve ("Rainy Day Fund")	10%	
Unassigned ("Cash Flow")	17%	35%

Debt Service

Reserve	Set by Covenants

Enterprise (MVU)

See MVU Financial Reserve Policy

Internal Service Funds

	Minimum	Maximum
Compensated Absences *	25%	100%
Fleet **	50%	100%
Equipment **	75%	150%
Technology **	75%	150%
Facilities **	3.5%	10%

* Based on accrued liability
** Based on recorded purchase price

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